Direktorat Program Pascasarjana
Universitas Muhammadiyah Malang

A REFLECTION OF
2022
A LOOK AHEAD TO
2023

Editor: **Diah Karmiyati**

Bildung

A REFLECTION OF 2022, A LOOK AHEAD TO 2023

A REFLECTION OF

2022

A LOOK AHEAD TO

2023

Editor: Diah Karmiyati

Preferance

The year 2022 is the year we all bounce back from a pandemic. We've seen restrictions lifted all around the world and Indonesia so we are slowly back to life before the pandemic. A lot of events are happening globally such as natural disasters, wars that continue between Ukraine and Russia, G-20 meetings, and World Cup 2022. As I am writing this in December, it is only fitting to reflect on what we have accomplished since January 2022. As a nation, our president announced that he will stop our exports of raw nickel to the EU, and this is a bold move. As an academician, we have been working hard to do our research and get published, let's celebrate regardless of our number of publications. As a person, we have managed to keep our interpersonal and intrapersonal relationships in check, so we must be grateful. As an entity, our workplace has also achieved numerous accomplishments that we are proud of.

When we read or see tons of information on the internet, it is very difficult to digest and sorts the correct and useful information. If we are aware, there are many videos that talk about a recession in 2023, that state there will be an economic crisis, so we need to prepare for it or otherwise, we are doomed. Sometimes it is good to see such videos to prepare but sometimes it is also overwhelming.

As a country with five major religions, and our first Pancasila stated to "Believed in God", the construction of spirituality is very important. Spirituality comes from within us and we have a higher calling to do what's good, what's moral, and what's not from our belief system. For instance, if we are Muslims, we are obliged to do five times prayer and not eat pork as it is considered haram. By standing on these main principles of being a Muslim, we are keen on walking ahead to face whatever God has planned for us. it is necessary for us to have a strong principle at heart that is based on our belief system. When we possess a strong spirituality, we have a tendency to be kind to other people. Kindness is the basis of practicing humanity. When we are not judging why someone does what they do, but rather inquire why we value them as a human. Therefore, we practice humanity.

To face 2023, we do not need to be fully equipped with millions of savings, although that can be an advantage. As such knowledge is given to us, to help us, we are human and need to construct our

spirituality and humanity so that we won't be lost in the uncertainty. We stand by our principle to face a fast-changing and uncertain world. We will be far more ready to accept anything given by God by instilling what we had all along, our belief and our ability to be kind.

Malang, December,2022
Diah Karmiyati

Table of Contents

Teacher's Directive Speech Actions in the Teaching and Learning Process at Mulya Jasa Kindergarten Gowa Distrits

Abd. Rahman Rahim[1], Arifuddin[2], Ratnawati[3]

Introduction

As social animals, we are constantly in contact with others. In order to build a relationship or engagement, humans require a communication tool. The communication tool is utilized to convey concepts, concepts, or opinions. The means of communication is termed language [1]. According to Sumarsono [2], language is a sign system in the form of arbitrary sounds used by community members to interact and interact with one another.

Language is an essential tool or medium of communication in teaching and learning activities. Teachers and students communicate with one another using language as a means of communication [3]. Through effective communication, activities will generate teaching and learning interactions that align with the desired outcomes. Consequently, the importance of language in learning cannot be separated, as teaching and learning exchanges cannot occur without a language function [4].

According to Chaer and Agustina [5], the primary purpose of language is to serve as a means of communication or interaction. By engaging in various forms of communication, each speaker has the objective of conveying particular goals or intents to their speaking partner. The communication that takes place must take place in an effective and efficient manner in order for the speech partners involved in the communication process to be able to comprehend the message that is being communicated in its entirety. If the language that is being used by the speaker cannot be understood by the speech partner, then an effective and efficient communication process will

---

[1] University of Muhammadiyah Makassar, abdrahman@unismuh.ac.id

[2] University of Muhammadiyah Makassar, arifuddin@unismuh.ac.id

[3] University of Muhammadiyah Makassar, ratnawati@unismuh.ac.id

not take place in an appropriate manner. Therefore, in order to make the process of communication more straightforward, speakers should choose terminology that is simple and straightforward for the speaking partner to comprehend [6].

In the field of pragmatics, the manifestation of spoken language takes the shape of speech. In the field of pragmatics, these are more commonly referred to as speech acts. The idea that a speaker is capable of performing at least three distinct kinds of activities, known as locutionary acts, illocutions, and perlocutions, is one that Searle is of the opinion can be found in Rahardi's [7] discussion of Searle's work. The illocutionary speech act is broken down into five different illocutionary acts, which are assertive, directive, commissive, expressive, and declarative respectively. Only the instructor's directed speech acts are the subject of the author's attention in this study. Speech acts that are considered to be directive are those that bind the speaker to the intention that the interlocutor carry out the activities that are indicated in the speech. For example ordering, ordering, ordering, begging, demanding, and providing counsel, suggesting [8].

Speech acts are a method of using language in teaching and learning interactions according to the topic of conversation, the aim of the conversation, the context, and the venue where the conversation takes place. Speech acts occur when two people are having a conversation [9]. Therefore, the utilization of effective speech acts that are in accordance with the context of the teaching and learning interactions will result in the creation of a stimulating environment for the teaching and learning of both teachers and students.

When it comes to teaching and learning interactions, utilizing a range of speech acts can take many forms, one of which is the employment of directive speech acts. The instructor is able to turn on teaching and learning interactions by using directive speech acts such as requests, inquiries, orders, prohibitions, giving permission, and guidance. These forms of speech acts fall under the category of directive speech acts. Each of these subcategories of directed speech acts has crucial purposes in the context of interactions involving teaching and learning. Therefore, the instructor can switch between different types of directive speech acts, each of which is tailored to the

purpose of the speech in accordance with the surrounding context [10].

Directive speech acts are conducted by the speaker with the goal that the listener carry out the activities indicated in the speech, such as commanding, begging, and challenging [11]. In accordance with this, Yule [12] defines directive speech actions as those employed by speakers to instruct others what to do, including requests, orders, and suggestions. In addition, Rahardi [7] defines directive speech actions as those in which the speaker intends to influence the speech partner to take action, such as commanding, begging, and counseling.

Searle (in Dardjowidjojo & Moeliono) [11] suggests that the directive speech act is divided into five types: 1) the directive speech act of ordering is a speech act that is spoken to tell the speech partner to do what the speaker says; 2) the directive speech act of asking is a speech act that politely requests the speech partner to do something the speaker desires; 3) the directive speech act of suggesting is a speech act that advises the speech partner, and 4) Through this address, the speaker challenges his interlocutor to follow his advice.

Teachers at the Mulya Jasa Sunggu Minasa Kindergarten in Gowa Districts use forceful, expressive, directive, commissive, and declarative speech acts during the teaching and learning interaction process, according to preliminary observations. However, among the five speech acts, the dominant teacher employs directive speech acts, as kindergarten instructors frequently give children instructions or counsel. There were some students who responded to the teacher's directed statement, while others did not. Students who respond to the teacher's words immediately comprehend and carry out instructions.

In an effort to encourage and preserve language in pragmatic studies, the researchers attempted to establish speech act research and define the types and functions of Kindergarten instructors' and students' directed speech actions. Therefore, researchers are interested in pursuing the topic Teacher's Directive Speech Acts in the Learning Process at Mulya Jasa Kindergarten in Gowa Districts.

.

Method

This research is qualitative and descriptive in nature. This research is categorized as qualitative since it attempts to provide

descriptive data regarding the directive speech of the kindergarten teacher at Mulya Jasa Sunggu Minasa in Gowa Districts. According to Bogdan and Taylor (in Moleong, 2005) [13], qualitative methodology is a research procedure that generates descriptive data in the form of written or spoken words and observed behavior from individuals. The researcher employs a descriptive technique, which entails describing in full the items to be studied, in order to attain the objectives that correspond to the topic to be investigated. The researcher employs this methodology because the collected data is in the form of words and not numbers, and since the obtained data is descriptive in the form of directing speech acts of the Mulya Jasa Kindergarten in Gowa Districts.

Results and Discussion
Directive Speech

In accordance with Rahardi's (2005)[7] findings, "The actual act of speaking might be thought of as a more concrete description of how language functions (performance of language functions). According to Purba (2011) [14], a speech act is the lowest unit of speaking action that can be stated to have a function. This definition can be found in the paper that he authored. The speech act theory is a type of linguistic theory that often focuses on sentence construction. If someone has anything to say to another person, then what that person hears is the significance of the statement, also known as its purpose. The individual, however, must put it into the form of speaking acts in order for it to be understood by others.

Supposedly, in accordance with Searle (Purba, 2011)[14], "Speech acts that bind the speaker with the aim that the interlocutor takes the actions indicated in the speech are known as directives. Directives are often used in business settings. The following is a list of the several sorts of directed speech acts:

A. Commanding speech act

Commanding directive speech acts are speech acts that are used to instruct the speaker to carry out the speaker's instructions. According to Rahardi (2005)[7], a sentence that means to command can be indicated with a trial politeness marker. As demonstrated by the following speech example:

"Wipe the chalkboard clean" The type of commanding directive speech act used by the teacher with one of his students. Because the teacher expects his students' cooperation, they must promptly remove the blackboard.

B.   Speech act of pleading

The directed speaking act of pleading gently requests that the communication partner do something that the speaker desires. According to Rahardi (2005)[7], a statement that meaning to beg is typically punctuated with a courteous indication of pleading. Example (2) of a speech directive request "Please, kiddies, pay attention!" This statement is said by a teacher to his students when the classroom environment is extremely noisy. This kind of discourse includes the directive speech act of pleading. Because the teacher requests that the students be quiet and pay attention to what she is explaining. This is a method for teachers to divert their students' attention.

C.   Speech act demanding

Demanding directive speech acts are speech acts performed by speakers to demand what they need. Examples of speech acts demanding: "Move to the front" This utterance was spoken by the teacher to one of his students. Its function is to demand that their students immediately move to the front as desired by the teacher.

D.   Speech act of suggesting (advising)

The directive speech act of proposing is a speech act in which the speaker recommends the listener to do something positive. "Sentences that are meaningful to propose are frequently indicated with politeness markers like the terms should and should," writes Rahardi (2005)[7]. Examples of directive speech include: "When there is an activity, it is preferable if we begin with bismillah." This speech is delivered by the teacher to his students, in which the teacher encourages his students that if they want to participate in activities, they should read Bismillah. Because

the teacher instructs his students to read bismillah before doing activities, this type of speech involves a suggestive directive speech act.

E. Challenging speech acts

Challenging directive speech acts are those used to persuade someone to do something the speaker says. The speaker attempts to challenge the addressee to do what he says in this speech. "Who can write the number six on the board?" is an example of a difficult command utterance. This is something the teacher says to his students. This sort of speech involves directive speech acts that are challenging. Because teachers encourage their students to come forward and write down the numbers that the teacher has given them on the whiteboard. Its purpose is to push their students so that they compete to perform what the teacher has instructed, as well as to encourage them to participate in class.

Speech Action in the Teaching and Learning Process at Mulya Jasa Kindergarteni

Individuals (students) are the focus of the term "learning." "Teaching" means the activities that a teacher undertakes in their role as a leader of student learning. When instructors and students interact with one another in the classroom, teaching and learning merge into a single process. In education, interaction is considered educational if it is undertaken with the express purpose of helping the child advance academically. Therefore, the interaction here is to aid children in reaching their full potential in ways that are in line with their own goals, so that their lives may be to the mutual benefit of the children, their communities, and their country. So, since there is social contact or association between students and their professors, teaching and learning exchanges are reciprocal activities.

Speech acts, as defined by Rohmadi (2013)[15], are the visible manifestations of the speaker's and the interlocutor's verbal acts in any form of communication, whether oral or written. Teachers and students engage in a two-way process of mutual learning and growth. Indonesian is used in the classroom as a means of

communication between instructors and students. Teachers and students need to work together effectively in the classroom for learning activities to pique students' attention and be perceived as beneficial.

It is important for teachers to have a good tendency in speech acts, particularly in teaching and learning interactions, so that their pupils can correctly perceive their words and the learning process goes smoothly. Similarly, pupils need to understand that there are nuances to communicating with others. What he would say if he were performing with his friend or in front of his teacher.

Therefore, when delivering a speech, both instructors and students should think about the audience and adjust their delivery accordingly. In addition to adapting their behavior to the needs of the classroom, instructors are also expected to exhibit a wide range of linguistic diversity. As a result, the exchange of information between teacher and student is not limited to the same few speech acts. Teachers also need to be able to employ techniques that improve their speech partners' receptive abilities. Students won't learn as much as they could if the instructor can't conduct effective speech actions.

The researcher conducted research on the directive speech acts of teachers and students at Mulya Jasa Sunggu Minasa Kindergarten in Gowa Districts. As a result of this research, the researcher was able to obtain an overview of the different types of directive speech acts of teachers and students as well as their functions in the context of teaching and learning interactions. According to the findings of the analysis done on the data that was gathered, the forms of directive speech acts that are employed by the instructors at Mulya Jasa Kindergarten include five different types of directive speech actions and three different functions of speech acts. In Searle's view, there are five distinct categories of speech acts: commanding, pleading, demanding, advising, and challenging. There are 35 different sorts of utterances that can be generated from the five different speech acts. According to Ibrahim's theory, the directive speech act function of the instructor only produces four functions: the function of request, the function of question, the function of command, and the function of counsel. Although this research of the Mulya Jasa Kindergarten teacher's directive speech act did not uncover the

function of either forbidding or allowing something, it did uncover the function of directing.

The pupils at Mulya Jasa Kindergarten only use two different forms of directive speech acts and two different functions of speech acts, both of which are based on Searle's theory. Pleading and demanding are two examples of speech acts that fall under the category of directive speech acts. The pupils in Kindergarten primarily employ speech acts such as requests and questions in their interactions with others.. Based on the findings of the research, it was discovered that Mulya Jasa Kindergarten teachers were more likely to engage in the sort of directing speech act than Kindergarten pupils were. The most common form of teacher directive speech acts is the commanding speech act. There are five forms of teacher directive speech actions.

Conclusion

The findings of the study showed that the forms of teacher directive speech acts in the teaching and learning process at TK Mulya Jasa Kab. Gowa found four functions, namely requests, questions, commands, and advice and found five types of directive speech acts, namely commanding, pleading, demanding, advising, and challenging and found four types of directive speech acts, namely demanding, advising, advising, and challenging. There were found to be two different sorts of directing speech acts in the teaching and learning interaction. These were begging and demanding. There were also found to be two different purposes. These were requests and questions.

References

[1]   W. Waridah, "Berkomunikasi dengan Berbahasa yang Efektif dapat Meningkatkan Kinerja," *J. SIMBOLIKA Res. Learn. Commun. Study*, vol. 2, no. 2, 2016, doi: 10.31289/simbollika.v2i2.1036.

[2]   Sumarsono, *Sosiolinguistik*. Yogyakarta: Pustaka Pelajar, 2009.

[3]   A. Yulia, A., Sianturi, D. L., Pertiwi, R., & Yuhdi, "Analisis Kesantunan Berbahasa Peserta Didik Berdasarkan Kajian Pragmatik dalam Proses Pembelajaran Bahasa Indonesia di Kelas X IPA 2 SMAN 7 Binjai, Sumatera Utara," *Pros. Semin. Nas.*

Pendidik. Bhs. dan Sastra Indones. II, vol. Vol. 2, pp. 6–10, 2019.

[4]   L. Sitepu, K. H. B., Poerwadi, P., & Linarto, "Realisasi Ilokusi Tindak Tutur Direktif Dalam Dialog Proses Belajar Mengajar Mata Pelajaran Biologi di SMAK Santo Aloysius Palangka Raya," *ENGGANG J. Pendidikan, Bahasa, Sastra, Seni, dan Budaya*, vol. 2, no. 1, pp. 79–90, 2021.

[5]   N. Lailiyah and I. P. Wijaya, "Syntactic Analysis of Language Acquisition in Three-Year-Old Children Based on Cultural Background," *JPUD - J. Pendidik. Usia Dini*, vol. 13, no. 1, 2019, doi: 10.21009/10.21009/jpud.131.05.

[6]   A. Darwis, "Tindak Tutur Direktif Guru Di Lingungan SMP Negeri 19 PALU : Kajian Pragmatik," *Bhs. dan Sasta*, vol. 4, no. 2, 2019.

[7]   K. Rahardi, *Pragmatik: Kesantunan Imperatif Bahasa Indonesia*. Yogyakarta: Gelora Aksara Pratama, 2005.

[8]   A. P. Y. Wijayanti N. M., Utomo, "Analisis Tindak Tutur Direktif Pada Novel Orang-Orang Biasa Karya Andrea Hirata Dan Relevansinya Sebagai Pembelajaran Bahasa Indonesia Di SMA," *J. Parafrasa Bahasa, Sastra dan Pengajaran*, vol. 3, no. 1, 2021.

[9]   L. Dwi, A. 1 , and D. I. Zulaeha, "Seloka: Jurnal Pendidikan Bahasa dan Sastra Indonesia Tindak Tutur Ekspresif Humanis dalam Interaksi Pembelajaran di SMA Negeri 1 Batang: Analisis Wacana Kelas," 2017.

[10]   M. Ratminingsih, "Tindak Tutur Guru dalam Proses Belajar Mengajar di Tk Wangun Sesana Penarukan Singaraja," *J. Pendidik. Bhs. dan Sastra Indones. Undiksha*, 2013.

[11]   S. Dardjowidjojo, *Mengiring rekan sejati: Festschrift buat Pak Ton*. Unika Atma Jaya, 1994. [Online]. Available: https://lib.atmajaya.ac.id/default.aspx?tabID=61&src=k&id=44250

[12]   G. Yule, *Kajian Bahasa*. 2015.

[13]   L. J. Moleong, *Metodologi penelitian kualitatif (Revisi)*. Bandung: PT remaja rosdakarya, 2017.

[14]   A. Purba, "Tindak Tutur dan Peristiwa Tutur," *Pena J. Pendidik. Bhs. dan Sastra*, vol. 1, no. 1, 2011.

[15]   M. Rohmadi, *Tindak Tutur Persuasif dan Provokatif dalam Wacana Spanduk Kampanye Pilkada Jawa Tengah Tahun 2013*. 2013.

Considering Children's Rights in the Constitutional Perspective

Abustan[4]

Introduction

During the last two decades, children of Indonesian continue to received attention and efforts to improve services, in order to provide protection (security) to children itself. However, the state has an obligation to protect its people, including Indonesian children (responsibility to protect).

Today, in plain view, abandoned children are seen like an iceberg phenomenon. This reality, of course, can be categorized that the activities and dynamics of children's lives have not been optimally protected by the state. In fact, the protection of children's rights is a human right for survival, growth and development guaranteed by the state as mandated in the 1945 Constitution of the Republic of Indonesia.

In line with this thought, the government's efforts to optimize the role of state institutions that are concerned and focused on providing protection to children continue to be renewed and the perfection of the legal order, including efforts to protect children, requires a separate law that regulates child protection. As we see, children have inherent basic rights as citizens. Therefore, children are a mandate as well as a gift from God Almighty, which we always take care of because they have inherent dignity, worth and rights as human beings that must be upheld.

Children's rights are part of the human rights contained in the 1945 constitution, in Article 28 B paragraph (2) that every child has the right to survive, grow and develop, and is entitled to be protected from violence and discrimination.

Underlining various provisions, both explicitly in the constitution and existing regulations, it is emphasized and given a clear explanation that child protection is all activities to guarantee and protect children and their rights so that they can grow, develop, and participate optimally in accordance with human dignity, and protection from violence and discrimination. Child protection can also be interpreted as all efforts aimed at preventing, rehabilitating and empowering children who experience acts of abuse, such as

---

[4] Lecturer in Law Faculty at Universitas Islam Jakarta (UID), cakbus.community@gmail.com

exploitation and neglect, in order to ensure their survival and growth and development naturally, physically, mentally and in social life.

After all, this crime has a very broad impact, starting from the victim's physical, mental, health, economic, to social and political impacts on the country. Therefore, in the midst of the government's strong will (good will) to improve human quality through improvement of social infrastructure, such as education, health, and balanced food. Because it must be realized, street children require special handling.

On the other hand, it is also hoped that the government's commitment to eradicating poverty by providing identity cards and birth certificates to children and their parents so that they get protection from state services. This is done starting from free education and health. These services become the rights of these children because they are also citizens who automatically have basic rights as citizens.

On that basis, the state which is run with government stakeholders must educate Indonesian youths who have dropped out of school and are unemployed. For them (abandoned children) the government must carry out "intervention" bravely. If necessary, from upstream to downstream, the children are educated: trained, given opportunities and assisted until they can work independently (productively). However, the state cannot be a spectator, but must be present to show empathy, namely a positive response from the government. Because, once again, it includes the rights of citizens that must be presented (fulfilled) by the government.

Indeed, that is the purpose and essence of our state. In the constitution it is explicitly stated that being a citizen of the Republic of Indonesia, according to the 1945 Constitution of the Republic of Indonesia, has a very important meaning in the legal system and government.

In the perspective of the 1945 Constitution of the Republic of Indonesia, it recognizes and/or respects the human rights of every individual human being within the territory of the Republic of Indonesia without exception, whether from social strata, ethnicity, class, religion, and place of residence (regional domicile). In addition, there are also provisions regarding the guarantee of certain rights which only apply to citizens or at least for citizens to be given certain privileges or virtues, for example the right to work which creates an obligation for the state to fulfill these rights. for Citizens of the Republic of Indonesia.

To be specific, the basic rights that can be categorized as constitutional rights of citizens are: "every citizen has the right to

work and a decent living for humanity (Article 27 Paragraph 2 of the 1945 Constitution of the Republic of Indonesia)". Other legal norms can also be seen and categorized as the state's attention to abandoned children to be given welfare as a basic right for them, namely Article 34 of the 1945 Constitution of the Republic of Indonesia.

Finally, as an affirmation of basic rights for neglected children in our basic law (grondwet). The 1945 Constitution of the Republic of Indonesia must be guided and implemented by all elements, both state administrators and citizens in carrying out their respective duties. In that context, the constitution must be enforced and functioned as a reference.

Discussion
Constitutional Mandate

The existence of children's lives is an inseparable part of the survival of human life and the sustainability of a nation and state. Children have a very important and strategic role. Therefore, it is expressly stated in the constitution that the state guarantees the right of every individual to survive, grow, develop, and provide protection from discrimination.

Therefore, it is in the best interests of the children of the state to have an obligation to protect them. The mandate of Article 28 B of the 1945 Constitution has been operationalized by making special legal regulations regarding child protection as enshrined in Law Number 11 of 2012 concerning the Juvenile Criminal Justice System.

This fact shows or confirms that Indonesia is a country based on law as stated in Article 1 paragraph (3) of the 1945 Constitution of the Republic of Indonesia in the third amendment. As a state of law, it is an obligation in every state action and the activities of its people must be based on the constitution. Because the ideal norm becomes the basic guide in the activities of every citizen.

As a result, in the context of the constitution, it is very clear that every child has dignity that should be upheld and every child born must get their rights without the child having to ask the state.

Children Rights Convention

The principle of legal protection for children must be in accordance with the Convention on the Rights of the Child as ratified by the Government of the Republic of Indonesia with Presidential Decree Number 36 of 1990 concerning Ratification of the Convention on the Rights of the Child (Convention on the Rights of the Child). Children's Rights).

Indonesia together with other countries in the world have agreed to put the best interests of children by fulfilling children's rights through an international forum declaring "World Fit For Children". This declaration was made on November 20, 1989 in the United States and was later ratified on September 2, 1990 which was then followed up by the Ministry of Women's Empowerment and Child Protection (KPP-PA) in Indonesia since 2006 in the form of efforts to develop child-friendly districts/cities (CLA).

The embodiment of a district/city development system that integrates the commitment and resources of the government, the community and the business world that is planned in a comprehensive and sustainable manner is to strengthen/strengthen the existence of Indonesia as a state party to the Convention on the Rights of the Child (Convention on the Rights of the Child). the obligation to provide special protection to children in conflict with the law 6. The Convention on the Rights of the Child was ratified by the Government of Indonesia through Presidential Decree Number 36 of 1990 in Article (b) stating, "States parties must ensure that no child can be deprived of his freedom unlawfully or arbitrarily. The arrest, detention or imprisonment of a child must be in accordance with the law, and be used as a last resort for the shortest appropriate period of time".

Based on positive law, a child is defined as an immature person (minderjaring heid/inferiority) or commonly referred to as a child under the supervision of a guardian (minderjarige uncer voordij). in their daily environment is one of the causes of deviations and/or violations of the law committed by children. For this reason, if a child becomes a perpetrator or a victim of a criminal act, the state and law must provide protection to him. 8. The applicable positive legal system must be reorganized, so that the supervision system for the implementation of child protection is more effective.

It is this basic assumption that various laws and regulations related to child protection have been issued. Even in Law Number 23 of 2002 concerning Child Protection, it has been clearly regulated regarding child protection to the rules of criminal sanctions for those who violate children's rights. represent the country. That is the basic pillar whose role must be continuously optimized.

To emphasize this, so that it is necessary to increase criminal sanctions and fines for perpetrators of crimes against children, especially for sexual crimes that aim to provide a deterrent effect, and encourage concrete steps to restore the physical, psychological, and social life of children. general protection of children, namely non-

discrimination, best interests of children, survival, and respect for children's participation.

For this reason, in the future, there is a need for competent and credible institutions such as the Indonesian Child Protection Commission to be more proactive in increasing the optimization of institutions in receiving and responding to public complaints related to child protection. So that various kinds of child protection cases can be handled properly and optimally by the Child Protection Agency (KPAI). So, continue to provide protection to children, including overseeing legal protection for children, namely during the trial in the juvenile court.

Moreover, since the enactment of Law Number 11 of 2012 concerning the Juvenile Criminal Justice System, which is usually abbreviated as SPPA which officially replaced Law Number 3 of 1997 concerning Juvenile Court, there has been a "new era" of changing the legal paradigm in juvenile criminal justice from the previous one. is absolute and still uses the old legal approach which always puts forward that every child who commits a (criminal) act must be repaid with the appropriate punishment.

Even though the pattern (method) of such a paradigm has changed with a more "humanist" legal system approach by prioritizing a "restorative justice" approach which, according to Toni Marshal, is "a process in which all parties involved in a particular crime, together together to solve the problem of how to deal with the consequences in the future".

Children and young people need to understand the risks of child marriage. Therefore, socialization regarding the prevention of child marriage must continue to be voiced and activities should be increased. Both at international, national, and local (scale) levels.

Children Matters Through Restorative Justice

Case handling with this approach is also carried out on the basic assumptions to provide an opportunity for lawbreakers to become good people again through non-formal channels by involving community resources. This is an effort to provide justice for cases of children who have already committed crimes to law enforcement officers.

In the Juvenile Criminal Justice System Act (SPPA) we can see the restorative justice approach in Article 1 point (6) which states that restorative justice is the settlement of criminal cases involving the perpetrator, victim, family of the perpetrator/victim, and other related parties to together seek a just solution by emphasizing restoration to its original state, and not retaliation.

The legal basis for Restorative Justice is contained in Article 24 paragraph (1) of the Covenant on Civil and Political Rights which stipulates that every child has the right to obtain the right to protective measures, because his status as a minor should be used as a legal basis for judges to terminate The legitimacy of such a decision is legally valid, because judges are given freedom in Article 28 Paragraph (1) of Law Number 4 of 2004 to explore, follow, and understand legal values and a sense of justice that lives in society.

This restorative justice approach is a thought that responds to the development of the criminal justice system by focusing on the need for community involvement and victims who feel excluded from the mechanisms that work in the justice system.

Indeed, it must be admitted that one of the legal systems that has now changed is the criminal justice system against children (as perpetrators). Why has the juvenile criminal justice system changed? Because the juvenile criminal justice system, which was previously represented by the regime of Law Number 3 of 1997 concerning Juvenile Court, is considered outdated and inhumane with the principles and spirit of law that is developing in our society today, so it has been replaced with a new legal regime. with Law Number 11 of 2012 concerning the Juvenile Criminal Justice System which aims to maintain the dignity of children with a "restorative justice" approach. By more accommodating (considering) children's human rights in the perspective of the constitution.

Conclusion

An important note that should be highlighted in this paper is the need to create an efficient, effective and efficient supervision system for the implementation of child protection. Therefore, optimizing the role of KPAI is very strategic and urgent to respond and respond quickly to various problems in the realm of child protection. Not only is the prevalence of neglected children (homeless), family disharmony (poor children), involvement in drug networks, and deviant ideologies. But it is also related to legal instruments that are considered inadequate in protecting the protection of children, and there are still various overlapping rules that need to be harmonized/synchronized with one another.

References

[1] Abustan, Hak Asasi Manusia (isu-isu kritis dan kontekstual nilai-nilai HAM), RajaGrafindo Persada, Cetakan 1, 2021
[2] Abdussalam, Hukum Perlindungan Anak, Jakarta, Restu Agung 2007

[3] Arianto, Satya, Hak Asasi Manusia dan Transisi Politik Indonesia, Jakarta, Sinar Grafika, 2008
[4] Dellyana , Shant, Wanita dan Anak di mata Hukum, Yogyakarta, Liberty, 1988
[5] Djamil, MN, Anak bukan untuk Di hukum, Jakarta, Sinar Grafika, 2013
[6] Soetodjo, Wagiati, Hukum Pidana Anak,Cetakan Pertama,Bandung, Refika Aditama 2013
[7] Lilik Mulyadi, Menyongsong Berlakunya UU NO 11 Tahun 2012 tentang SPPA .

Plantation Industry Waste Back to Sustainable Agriculture

Agus Sutanto[5], Hening Widowati[6], Nani Septiana[3], Handoko Santoso[4], Achyani[5], Rasuane Noor[6], Nedi Hendri[7], Fenny Thresia[8]

Introduction.

The potential of the plantation industry in Lampung continues to grow, in 2019 the production of palm oil was 189. 840,000 tons and pineapple in 2021. 7,058,999 quintals [1]. This production potential produced abundant liquid, solid waste of palm oil and pineapple. There are 15 indigenous bacteria in pineapple waste that have the ability to degrade waste organic matter. The results showed that the 15 isolate consortia fermenter treatment (P5) produced the best liquid fertilizer and compost. Application of P5 to the best vegetable, ornamental, fruit, rice, corn, gaharu plants. The mass production of liquid fertilizer and compost with the trademark Pumakkal is produced by PT. Pumahitari is one of the business units of the Muhammadiyah University of Metro. Application of Pumakkal through community service at the Hijau Daun Farmers Group Karangrejo North Metro, Pumakkal fertilizer is proven to produce vegetables equivalent to chemical fertilizers. Assistance from land cultivation, nurseries, planting, care, fertilization, pest and disease control, harvesting, packaging, labeling, material diversification and diversification of processed and marketing variations have increased the knowledge, income and awareness of farmers for environmentally friendly farming. The above description is presented in the following discussion.

Discussion.

On average, PT Kalirejo Lestari can process around 800 tons of Fresh Fruit Bunches (TBS) per day, with an average annual processing capacity of 288,000 tons of TBS [2]. From the processing, crude palm oil (CPO) is produced and solid waste is produced 150 tons of empty bunches and 4,440 liters of liquid waste per day, from observations there was a buildup of palm oil waste at the wastewater treatment plant, while solid waste in the form of empty coconut bunches was burned and the ashes were taken for plantation fertilizer.

[5]University of Muhammadiyah Metro, sutanto11@gmail.com.

[6,3,4,5,6,7,8] University of Muhammadiyah Metro.

oil palm and some were used by mushroom farmers as a medium for growing oil palm mushrooms. Burning empty palm oil bunches was considered inefficient because it can pollute the air. PT Kalirejo Lestari has utilized the waste but it has not been maximized. Palm oil waste contains useful organic substances, including cellulose, hemicellulose, lignin, N, P, K, Ca, Mg which are good for plant growth. PT. GGF Terbanggi Besar, Central Lampung Regency is the third largest pineapple producer in the world, pineapple peels, stems and leaves are often found in the form of waste from processing sites. The volume of liquid waste per harvest reaches 5,000 m^3, while for solid waste it reaches 45 tons [3] Compost from pineapple peel, stem and leaf waste contains macro nutrients (nitrogen, phosphorus and potassium) which are essential for plant growth and development. Pineapple peels contain 81.72% water; 20.87% crude fiber; 17.53% carbohydrates; 4.41% protein and 13.65% reducing sugar. Given the high carbohydrate, sugar, and protein content, pineapple peel can be used as raw material for making fertilizer through a fermentation process [4].

Table 1. Isolation of pineapple liquid waste obtained 15 isolates potential to degrade organic matter and acidic pH [5].

Consortia Bacteria	Total Isolates	Bacteria Isolates	Hydrolysisability
P1	3	Isolates 2, 3, 5	Fat degradation
P2	6	Isolates 4, 5, 6, 7, 12, 14	Amylum degradation
P3	9	Isolates 1, 2, 3, 8, 10, 11, 12, 14,15	Protein degradation
P4	12	Isolates 1, 2, 3, 7, 8, 9, 10, 11, 12, 13,14, 15	Protein dan amylum degradation
P5	15	Isolates 1 s.d. 15	Protein, amylum and fat degradation

Five kinds of Consortia have been tested for various agricultural, plantation, fishery, household and market wastes and applied to various vegetable, fruit, agricultural, plantation and ornamental plants through 125 Undergraduate theses and theses from 2012 to 2022. The ability of bacterial consortia in degrading materials organic matter has been patented: Composition of bacteria indigen degrading Pollutant Organic pineapple liquid waste Patent Certificate No. IDP000043727 [6] Composition Bioremediator neutralizing pH of pineapple liquid waste pollutants. Patent certificate

No.: IDP000044452 [7].Higher Education Human Resources (SDM) are required to overcome the turmoil of changes that occur due to the transformation that continues to develop. SDM prepares themselves with qualifications and competencies that can compete and survive in the industrial era 4.0. Muhamadiyah University of Metro with Catur dharma carried out has an enlightening direction of education and teaching in the 4.0 industrial era, research oriented to invention and innovation, future service that brings prosperity to each other in the frame of Al Islam and Kemuhammadiyahan [8].

The ability of the consortia was tested for the manufacture of liquid waste fertilizer for pineapple and oil palm [3], the Pumakkal fermenter had an effect on the levels of nitrogen, phosphorus, potassium in the compost mixture of peels, stem, and leaves of pineapple. The best fermenter to be found in treatment 5 (P5) with the number of bacterial isolates (15 isolates). The use of the P5 formula is a recommended formula in the manufacture of compost for oil palm empty fruit bunches and palm oil waste, [2] showing the best effect on the growth of gaharu (Aquilaria malaccensis).Based on the research that has been done, it shows that the variation of organic fertilizer compost of pineapple waste and liquid fertilizer of pineapple waste on isolate P5 gave the best effect on the growth of chili pepper plants. Application of pineapple liquid waste on lettuce (Lactuca sativa L) In accordance with the results of experimental research that has been carried out, the dosage variation of pineapple liquid waste organic fertilizer (LCN) 15% on the growth of Lettuce (Lactuca sativa L) is the best [9].Production of fertilizer with a patented bacterial bioremediator using the trademark Pumakkal (Lampung:biang, starter) Brand Certificate Number: IDM000848139 [10]. Liquid fertilizer and Pumakkal compost are produced by PT. Pumahitari (PT owned by UM Metro campus) with a Risk-Based Business Licensing Business Registration Number (NIB) : 0268010161316 [11].

Downstreaming (*Hilirisasi*) fertilizer products for community service have partnered with Hijau Daun farmer groups in the form of community service with the concept of sustainable agriculture from tillage, seeding, planting, care, control of weeds, pests and diseases, harvesting, post-harvest, various packaging, processing and selling products on and off others and build organic communities. [12] [13], the results achieved in the implementation of community service for vegetable farmers in Karangrejo, North Metro District, Metro City can be concluded as follows: 1) Understanding of pollution increased by 108.01%; 2) The public recognizes the contamination of chemical fertilizers and pesticides that can be distributed to agricultural products; 3) Recognizing the types of heavy metals in chemical

fertilizers and active residues of synthetic pesticides; 4) Recognizing the characteristics of environmental profiles and polluted vegetables, with their skills an increase of 29.17%; 5) Identifying solutions to minimize contamination by controlling organic fertilizers and pesticides; 6) Organic farming, including by utilizing microbial fermented fertilizers and bioinsecticides; 7) Awareness of environmentally friendly farming increased by 41.67%, but awareness to practice it consistently was still insufficient. Among other things, because of economic demands and wanting to quickly and instantly improve agricultural products, without taking into account the long term and sustainability and sustainable environment. Organic cultivation with Pumakkal reduces chemical residues in soil, water and vegetables and increases soil fertility. Farmers have knowledge and skills about sustainable organic farming. Efforts to sustain organic vegetable cultivation by building marketing networks both conventional and online. Organic agriculture is characterized by being free from chemical substances that can damage the environment and damage the health of all ecosystem components [14].

The adverse effects of the use of chemicals/synthetics in the agricultural system have begun to occur, among others: 1) Indonesian farmers are very dependent on the use of superior seeds, fertilizers, and pesticides that are not energy efficient; 2) applied agricultural technology destroys nature and the environment, it can be seen from the emergence of resistance and urgency in cropping [15]; [16] and the presence of residues in soil, water, air, and agricultural products.The officially used definition of organic farming is that adopted by the IFOAM General Assembly in September 2005 in Adelaide, Australia. Organic agriculture is a production system that supports the health of soil, ecosystems and people. Organic agriculture relies on ecological processes, biodiversity and cycles adapted to local conditions, without the use of inputs with adverse effects. Organic agriculture applies the amalgamation of tradition, innovation, and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved [17]. The four principles are the principles of health, ecology, justice, and protection [18].

The Hijau Daun farmer group has been implementing agriculture using chemicals, so with mutual awareness it has begun to reduce dependence on chemicals and switch to existing organic materials. The area of organic farming in Indonesia is still very limited, of the total agricultural land (rice fields and gardens) in Indonesia, only 0.14% are applying organic cultivation [19]. The categories of

commodities that deserve to be developed with an organic farming system [20] include: 1) rice food crops, 2) vegetable horticulture: broccoli, red cabbage, Chinese cabbage, caisin, white cho, sprouted cabbage, leaf spinach, squash, luffa, and wax gourd. Fruits: jackfruit, durian, salak, mango, orange, and mangosteen; 3) plantations: coconut, nutmeg, cashew, clove, pepper, vanilla and coffee; 4) spices and medicines: ginger, turmeric, Javanese ginger, and other types of rhizome of ginger; and 5) dairy, egg and meat farming. A review of various aspects of organic agriculture has the potential to be developed [21], namely: 1) to increase soil fertility; biodiversity, and sustainability of agricultural production; 2) to conserve natural resources; 3) to improve agronomic and economic performance, to produce more and relatively, especially in risk-prone tropical ecosystems, to achieve better, quality food and ensure food security; 4) to provide access to attractive markets through certified products; and 5) to create new partnerships throughout the value chain and also to strengthen the confidence and autonomy of farmers.

Currently, Hijau Daun farmers are developing vegetable commodities that have been certified prima 3, including: green beans, eggplant, mustard green, lettuce, pak choy, cucumber, lemon basil, water spinach, long beans, spinach [23]. The results of the study [22] show that the determinants of organic farming adoption consist of various aspects, namely: 1) availability of information and knowledge; 2) economic and financial motives; 3) technical and management skills; 4) social considerations; 5) environmental concern; 6) institutional environment; and 7) socio-economic and demographic background of farmers. To encourage the adoption of organic farming needs to be considered in the formulation of policies and programs. The government's role is very important, especially to convince farmers about the benefits of organic farming education, providing information, as well as technical assistance for farmers. [24] suggested that macro constraints in the development of organic agriculture are the market and climatic conditions. In terms of marketing, the consumer segment is still limited to the upper middle class, despite global market demand such as America, Japan, and countries in Europe. The biggest obstacles faced by farmers in pursuing organic farming according to [25] are lack of knowledge, access to markets, need for certification, agricultural inputs, and lack of organization. Meanwhile, the results of a study [26] in South Bandung, showed that the obstacles for farmers in implementing organic farming as a whole include: 1) the lack of facilitators or driving forces who are able to motivate farmers to apply organic farming more; 2) low or insufficient carrying capacity, one of which does not

have a green house; 3) lack of support for infrastructure from the government to support organic farming; and 4) farmers feel that organic farming is complicated to run, while they are comfortable with the conventional cultivation conditions that they have been running. The results of a study in Taiwan [27] show that in the development of an organic system that needs to be considered is the supply, marketing, and distribution of these organic products, which requires the trust of producers, retailers, and consumers who all benefit and have an ethical vision and responsible socially. The results of the inventory of the problems of the Hijau Daun group obtained the constraints in organic farming:

A. Land: organic is smaller than non-organic (0.2% Indonesia, 0.3% China, India 0.7%, European countries more than 5%, Germany is 6.5%), limited safe water sources , long distance transportation access.
B. Production Facilities: limited production and distribution of organic fertilizers, limited organic pesticides.
C. Processing: Equipment has not been separated between organic and non-organic, organic processed food is less than fresh food, Information on organic processed is limited.
D. Marketing: minimal technical knowledge and marketing channels controlled by organic entrepreneurs, limited marketing channels and still mixed with organics, expensive transportation costs (location and means of transportation).
E. Human Resources: Limited number of competent SDM, coaches, researchers, organic agriculture inspectors, business actors/small farmers.

Then it is necessary to do:
A. Formulation, regulation, standards and guidelines on organic agriculture based on producer and consumer justice.
B. Improving the ability and knowledge of SDM
C. Socialization, technical coaching and marketing development.
D. Development of a system of recognition and supervision of organic agricultural products. Based on the explanation above, the assistance of the Hijau Daun farmer group is carried out regularly and continuously, involving components in the village of 23 Karang Rejo.

Conclusion.

Downstreaming processes and research products of lecturers, one of which is the plantation industry, is waste that is treated with indigenous bacteria capable of producing liquid fertilizer

and Pumakkal compost products by involving student research umbrellas. The mass production of Pumakkal fertilizer is managed by PT. Pumahitari is one of the companies under the campus of Muhammadiyah University of Metro and is applied through service to the Hijau Daun farmer group, Karang Rejo, North Metro. Continuous assistance to farmer groups provides awareness of the importance of healthy agriculture for long-term sustainability of life.

Reference

[1]   BPS. Luas Areal Tanaman Kelapa Sawit Perkebunan Rakyat menurut Kabupaten/Kota di Provinsi Lampung, 2014-2018 (Hektar). 2018. https://lampung.bps.go.id/indicator/55/614/1/produksi-buah-buahan-menurut-kabupaten-kota-dan-jenis-tanaman.html

[2]   Iriyawati, H. Widowati, A. Sutanto, Kompos Dan Pupuk Cair Limbah Sawit Untuk Nutrisi Tanaman Gaharu (*Aquilaria malaccensis*), Volume 3 Nomer 1, Februari 2022, 2022 DOI: https://doi.org/10.24127/biolova.v3i1.1778 https://scholar.ummetro.ac.id/index.php/biolova/article/view/1778

[3]   Angga Setyawan, Agus Sutanto,Achyani. 2022. Kualitas Kompos Kulit Dan Batang Nanas Dengan Fermentor Pumakkal. Volume 3 Nomor 2 Agustus 2022 / DOI: https://doi.org/10.24127/biolova.v3i2.1817

[4]   I. A. Kusuma Pramushinta, "Pembuatan Pupuk Organik Cair Limbah Kulit Nanas Dengan Enceng Gondok Pada Tanaman Tomat (Lycopersicon Esculentum L.) Dan Tanaman Cabai (Capsicum Annuum L.)Aureus", *Pharmasci*, vol. 3, no. 2, pp. 37-40, Jul. 2018. DOI: https://doi.org/10.53342/pharmasci.v3i2.115

[5]   B. Saputra, Formula Bioremediator Bakteri Indigen Limbah Cair Nanas dalam Mendegradasi Sedimen Tambak Udang Untuk Penyusunan Lembar Kegiatan Peserta Didik Berbasis Bioentrepreneurship. *Tesis*, Magister Pendidikan Biologi, Pascasarjana Universitas Muhammadiyah Metro. 2021 http://webcache.googleusercontent.com/search?q=cache:hZ6IvBX3gj0J:eprints.ummetro.ac.id/view/divisions/MPB/2021.default.html&client=firefox-b d&hl=id&gl=id&strip=1&vwsrc=0

[6]   DJKI, Paten No. IDP000043727. Komposisi Bioremediator Bakteri Indigen Pereduksi Polutan Organik Limbah Cair Nanas (LCN)Tgl. Pemberian 2016-11-28, 2016.

https://pdkiindonesia.dgip.go.id/detail/P00201100944?typ
e=patent&keyword=nanas+organik

[7] DJKI, No. Paten IDP000044452. Komposisi Bioremediator
Bakteri Indigen Penetral Ph Polutan Limbah Cair Nanas (Lcn).
Tgl. Pemberian 2017-02-16. 2017. https://pdki-
indonesia.dgip.go.id/detail/P00201100720?type=patent&ke
yword=lcn+penetral+pH

[8] A. Sutanto. Pengembangan Sdm Berkemajuan Era 4.0
(Revitalisasi Penelitian Dan Pengabdian Kepada Masyarakat).
*Prosiding Seminar Nasional Penelitian dan Pengabdian kepada
Masyarakat Tahun 2019*. LPPM Universitas Muhammadiyah
Metro. ISBN. 978-623-90328-2-1, 2019.
https://repository.ummetro.ac.id/view/2754.

[9] Muarif, Moh, Agus Sujarwanta, Handoko Santoso, and
Muhfahroyin Muhfahroyin. "Pengaruh Variasi Dosis Pupuk
Organik Limbah Cair Nanas (Lcn) Terhadap Pertumbuhan
Dan Produksi Tanaman Selada." *Biolova*, Vol2, No. 1, pp.16–
25, 2021 *doi:10.24127/BIOLOVA.V2I1.520.*

[10] PDKI, Merek Pumakkal Hijau Lestari. No. Pendaftaran
IDM000848139 Tgl. Pendaftaran 2021-04-23. 2021.
https://pdkiindonesia.dgip.go.id/detail/IPT2019015785?ty
pe=trademark&keyword=pumakkal

[11] Republik Indonesia. Pemerintah,*Perizinan Berusaha Berbasis
Risiko Nomor Induk Berusaha : 2507220016779. PT
PUMAKKAL HIJAU LESTARI*. 2020, pp. 3–5.

[12] H. Widowati, A. Sutanto, Achyani, N. Hendri, and F. Thresia,
"Pemahaman Bertanam Organik Dan Kesadaran Masyarakat
Untuk Bertani Ramah Lingkungan Di Kebun Sayuran
Karangrejo Metro," in *PROSIDING SEMINAR NASIONAL
PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT KE 2
TAHUN 2020 (SNPPM-2) UNIVERSITAS, 2020*, pp. 393–406,
[Online]. Available:
https://repository.ummetro.ac.id/view/3226

[13] A. Sutanto, H. Widowati, F. T. Achyani, and N. Hendri,
"Pemberdayaan Kelompok Tani Hijau Daun Karang Rejo
Metro Utara Menggunakan Aplikasi Pupuk Organik
Pumakkal," vol. 3, pp. 291–300, 2021, [Online]. Available:
https://repository.ummetro.ac.id/files/artikel/3300.pdf.

[14] D. T. P. Kementan RI, "*Budidaya Padi Teknologi Hazton
Tahun 2016*," Petunjuk Tek. Budid. Padi Teknol. Hazt. Tahun,
pp. 1–52, 2016, [Online]. Available:
http://tanamanpangan.pertanian.go.id/assets/front/upload

s/document/PETUNJUK TEKNIS PADI TEKNOLOGI HAZTON-2016.pdf.

[15]   Sumartini. Penyakit karat pada kedelai dan cara pengendaliannya yang ramah lingkungan. *J Penelit Pengemb Pertani.* *29*(3):107-114, 2021. http://ejurnal.litbang.pertanian.go.id/index.php/jppp/rt/printerFriendly/5690/0

[16]   K. Untung. A. Trisyono Wereng batang cokelat mengancam swasembada beras. 2010. [Internet]. [diunduh 19 Apr 2019]. Available: http://faperta.ugm.ac.id/fokus/wereng_cokelat_mengancam_swasembada_beras.php.

[17]   International Federation of Organic Agriculture Movements Organic agricultural: our definition [Internet]. 2005a. [cited 2019 Apr 17]. Available from: https://www.ifoam.bio/en/organic-landmarks/definition-organic agriculture.

[18]   International Federation of Organic Agriculture Movements. Principles of organic agriculture [Internet]. 2005. [cited 2019 April 17]. Available from: https://www.ifoam.bio/en/organiclandmarks/principles-organic-agriculture.

[19]   N. Sitanggang, "Jumlah Lahan Pertanian Organik Indonesia Masih Sangat Minim". *Agribinis Online* [Internet]. 2017, [diunduh 12 Jun 2019]. Tersedia dari: https://agribisnis.co.id/jumlah-lahan-pertanianorganik-indonesia-masih-sangat-minim/.

[20]   Badan Penelitian dan Pengembangan Pertanian. Prospek pertanian organik di Indonesia [Internet]. *Badan Litbang Pertanian*, 2002 [diunduh 2019 Mar 8].Tersedia dari: http://www.litbang.pertanian.go.id/info-aktual/17/

[21]   L. Kilcher, How organic agriculture contributes to sustainable development. *JARTS Witzenhausen , Supplement.* University of Kassel at Witzenhausen [Internet]. 2007. [cited 2019 Jan 6]; 89:31-49. Available from: https://orgprints.org/10680/1/Kilcher_2007_JARTS_SP_89.pdf.

[22]   Ashari, J. Sharifuddin, M. Z, Abidin, Factors Determining Organic Farming Adoption: International Research Results and Lessons Learned 7for Indonesia. *Forum Penelit Agro Ekon. 35*(1): 45-58. 2017.

[23]   H. D. Kelompok Tani, "Sertifikat Prima 3 Sayuran Karang Rejo Metro Utara." Kepala Dinas Ketahanan Pangan,

Tanaman Pangan dan Holtikultura Propinsi Lampung, Metro, 2021, [Online]. Available: https://repository.ummetro.ac.id/view/3945.

[24] H. Mayrowani, Pengembangan pertanian organik di Indonesia. *Forum Penelit Agro Ekon. 30* (2): 91 – 108. 2012.

[25] L. Kilcher, How Organic Agriculture Contributes to Sustainable Development, *JARTS, Upplement.* University of Kassel at Witzenhausen [Internet], 2007. [cited 2019 Jan 6]; 89:31-49. Available from: https://orgprints.org/10680/1/Kilcher_2007_JARTS_SP_89. pdf.

[26] A. Charina, R. A. B. Kusumo, A. H. Sadeli, Y. Deliana, Faktor-Faktor Yang Mempengaruhi Petani dalam Menerapkan Standar Operasional Prosedur (SOP) Sistem Pertanian Organik di Kabupaten Bandung Barat. *J. Penyul14*(1):68-78. 2018. Tersedia dari: https://jurnal.ipb.ac.id/index.php/jupe/issue/view/2080.ht tps://doi.org/10.25015/penyuluhan.v14i1.16752.

[27] L. H. Chang, F. H. Wei, C. C. Shih. Sustainable Business Model for Organic Agriculture - Lee Zen Organic Corporation in Taiwan. *Acta Hortic*, 895, 85-90 . 2011. https://doi.org/10.17660/ActaHortic.2011.895.10

Potential of Paddy Straw as Poultry Feed

Ali Mursyid Wahyu Mulyono[7]

Introduction

In Indonesia, paddy straw is one of the agricultural by-products that is available quite abundantly. According to the Central Statistics Agency, rice production in 2018 is estimated at 56.54 million tons of dry milled grain with a harvested area of 10.90 million hectares [6]. With a ratio of rice and wet paddy straw production of 2:3, then in 2018 84.81 million tons of wet paddy straw were produced.

Paddy straw is classified as a low-quality feed ingredient with low crude protein content, while high crude fiber content (Mulyono, 2010; Suryapratama & Suhartati, 20212), plus high bulky properties and less palatable for livestock [30]. The nutrient content of paddy straw includes 7.4% crude protein, 2.4% soluble protein, 6.2% fat, 21.9% crude fiber, 21.5% cellulose, and 17.1% ash [18]. The crude fiber component of paddy straw consists of 35% cellulose, 35% hemicellulose and 6% lignin (FAO).

According to Fatmawati [9] the content of paddy straw based on dry matter is 3.2% crude protein, 32.56% crude fiber, 1.33% fat, 67.34% NDF, 46.40% ADF, 40.80% cellulose, 26.62% hemicellulose, and 5.78% lignin. Meanwhile, Sarwono and Arianto [24] stated that the nutrient composition of paddy straw was 73.82% NDF, 51.53% ADF, 5.31% crude protein, 3.32% crude fat, 32.14% crude fiber, 36.68% Non Fat Extract (NFE), and 22.25% ash.

The use of paddy straw as animal feed is less efficient due to the low nutritional value it contains [11]. The high content of ADF is the cause of the low digestibility of paddy straw [25].

For this reason, in order for paddy straw to be of higher quality, it needs good handling, one of which is biotechnology treatment. Biotechnology is one way to increase the nutritive value of paddy straw by involving microbial inoculum and other medium materials to make the bioprocesses in it more effective.

[7] Animal Science Study Program, Faculty of Agriculture, Universitas Veteran Bangun Nusantara, Indonesia, e-mail: alimursyid64@gmail.com

Discussion

Technology is a device or a way to make human life easier. In the face of nutritive constraints of feed ingredients, humans use technology to overcome them. Humans hope that previously very limited feed ingredients can be used in rations, one day these ingredients can be increased in use.

The development of technology in animal feed ingredients today is very rapid. The technology used in feed ingredients varies from appropriate technology for the wider community to hi-tech for industry. The application of technology is mostly aimed at engineering nutrient content, changing particle size, and reducing antinutrient content. The methods applied in feedstuff technology can be in the form of mechanical, enzymatic, and microbiological methods.

The use of microbes in feed technology is a very challenging development compared to the use of chemicals and mechanics. The use of chemicals in feed technology is felt to be more complicated because it must be followed up with a pH neutralization process. While the physical-mechanical treatment has not given optimal results. The use of microbes is considered more natural, environmentally friendly and has no side effects on livestock that consume them.

Today it is known that microbiological treatment can increase the nutritive value of feed ingredients. High crude fiber and low protein materials can increase their nutritive value through fermentation technology, especially by using cellulolytic microbes [22]. The increase in nutritive value is due to the release of nutrients which are components of cell contents due to the degradation of cellulose cell walls of hemp cells by the cellulase enzyme secreted by microbes. Cellulase enzymes are soluble proteins that are also useful as nutrients. During fermentation, mycelium biomass, glucose and metabolites such as amino acids and organic acids will also be produced. Mechanism of changes in nutrient content.

By looking at the products produced, the fermentation process can be divided into four categories, namely to produce microbial biomass, produce microbial enzymes, produce primary or secondary metabolites, modify chemical compounds (transformation process) [5] Antonius [4] also stated that the use of cellulase enzymes in the manufacture of feed really needs to be considered because in addition to improving the quality of carbohydrates, it is also a way to improve organic matter.

Sulaiman [27] added that the longer the fermentation time the more food substances were reshuffled such as dry matter and organic matter. The best fermentation time for paddy straw is 8 to 12

days at room temperature and aerobic conditions [28]. Cellulolytic fermentation is one way to overcome the constraints of cellulose materials such as paddy straw. Microbes release cellulase enzymes to degrade and transform cellulose macromolecules into simple molecules that are easily absorbed by cells [10]. Cell wall degradation due to enzymatic hydrolysis leads to the release of cell contents [16].

Trichoderma is one of the fungi with high cellulolytic activity [15], so it can be used to improve the nutritive quality of cellulose feed ingredients [17]. Trichoderma secretes cellulase in a medium rich in cellulose such as cassava [22]. Cellulose cell wall substrate is degraded by cellulase into simple compounds that are easily absorbed by microbial cells [10], which in turn will become a source of microbial energy [20]. The degradation of the substrate cell wall causes the substrate cell content to be released [16], so that it can be digested by endogenous enzymes in poultry 13.

Trichoderma is a mesophilic fungus that belongs to the filamentous fungi [7]. Trichoderma AA1 mutants are the result of the development of microbes with the ability to secrete cellulase enzymes higher as well as resistance to catabolite repression (Mulyono et al., 2007). This mutant has the potential to be used as a fermentation inoculum in cellulose-rich materials, such as paddy straw.

Feed ingredients that have been treated with microbes become ingredients that are easier to use by livestock that consume them. [2] reported that Trichoderma fermented cassava was able to substitute up to 30% corn in broiler rations without affecting nutrient digestibility or chicken performance. This can happen because fermented cassava bagasse has better nutritional value than unfermented cassava bagasse [1]. Mulyono et al. [20] reported that cassava fermentation can increase nutrient content, apparent and true digestibility of feed ingredients, as well as pseudo and true metabolized energy values. An increase in nutrient content also occurs in Trichoderma fermentation on paddy straw [2].

Besides being used to improve the nutritive quality of feed ingredients, Trichoderma sp. has been studied extensively as a producer of cellulase enzymes to degrade cellulose to glucose [8]. Trichoderma is able to produce complex cellulase enzymes consisting of CBH (1,4-β-glucan cellobiohydrolase), endoglucanase (1,4-β-glucan glucanhydrolase) and cellobiase (β-glucosidase) [7].

Digestibility is a reflection of the ability of a feed ingredient that can be utilized by livestock. The digestibility of fermented feed ingredients can increase due to the role of microbes that are able to break the bonds of lignin with cellulose and hemicellulose so that they can be utilized by microbes, rumen and for livestock[29].

Fermentation of a material can increase protein content, improve digestibility and the formation of various amino acids, enzymes and vitamins [22] . Purwadaria et al. [23] reported that coconut cake fermentation can increase the digestibility value. Similar treatment has also been carried out for cocoa bean husk fermentation [12]. Cassava bagasse fermentation with A. oryzae was able to increase the digestibility value of dissolved protein from 41.7 to 72.2%, and increase metabolized energy from 2895 to 2952 kcal/kg [1]. The digestibility value (Apparent and True Digestibility) of bagasse waste crude fiber can be increased by fermentation treatment with the Sub-Merged Fermentation method [3].

To expand Trichoderma in fermentation technology on paddy straw, a simple and ready-to-use Inoculum is needed. Trichoderma in glutinous rice carrier which was stored for 16 weeks resulted in higher viability and cellulase enzyme activity compared to dry mud carrier. Glutinous rice and dried mud are suitable for use as carriers with an average viability of 5.46x107 and 3.19x107, respectively [19].

Conclusion

Paddy straw is an agricultural waste that has the potential to be an energy source for animal feed with abundant availability. The implementation of paddy straw as animal feed has several obstacles such as low crude protein content, high crude fiber, low digestibility, and low nutritive value. The solution that can be offered to eliminate some of the nutritional constraints of paddy straw as animal feed is the introduction of biotechnology using Trichoderma fungi. This fungus functions as cellulolytic microbes that can degrade cell wall cellulose, so that the nutrients in the cell contents can be utilized by livestock. The widespread use of Trichoderma in paddy straw fermentation can be made inoculum with glutinous rice as a carrier.

References

[1]   W. M. Ali Mursyid, & Zuprizal, "Fermentasi Substrat Padat pada Onggok dengan Aspergillus Oryzae : Evaluasi Kandungan Protein dan Asam Amino, Kecernaan dan Ketersediaan Energi pada Ayam Broiler". *Buletin Peternakan*, *29*(2), 71–79, 2005. Doi : https://doi.org/10.21059/buletinpeternak.v29i2.1171

[2]   W. M. Ali-Mursyid, Z. Bachruddin, Z. Zuprizal, & M. Nur-Cahyanto, "Corn Substitution using Fermented Solid Cassava-Waste on Broiler Chicken". *Journal of the Indonesian Tropical Animal Agriculture*, *35*(1). 2010. DOI : https://doi.org/10.14710/jitaa.35.1.9-15

[3]   W. M. Ali-Mursyid, A. S. Nugraha, & Z. Zuprizal, Nutrient Digestibility of The Waste of Saccharification Process From Cassava Bagasse on The Laying Hens. *Journal of the Indonesian Tropical Animal Agriculture*, *36*(4). 2011. DOI : https://doi.org/10.14710/jitaa.36.4.260-264

[4]   Antonius, "Pengaruh Pemberian Jerami Padi Terfermentasi Terhadap Palatabilitas Kecernaan Serat dan Digetible Energy Ransum Sapi", *Seminar Nasional Teknologi Peternakan Dan Veteriner Tahun 2010*, 224–228, 2010.

[5]   Z. Bachruddin, "*Teknologi Fermentasi pada Industri Peternakan"* (L. M. Yusiati, Ed.; 1st ed.). Gadjah Mada University Press. 2014.

[6]   Badan Pusat Statistik, "Indonesia Rice Production in 2018". In *Executive Summary of Rice Production and Harvested Area and Rice at Indonesia in 2018*. 2018.

[7]   M. J. Carlile, S. C. Watkinson, & G. W. Gooday, *The Fungi* (2nd ed.). Academy Press. 2001.

[8]   P. Chand, A. Aruna, A. M. Maqsood, & L. V. Rao, (2005). "Novel Mutation Method for Increased Cellulase Production". *Journal of Applied Microbiology*, *98*(2), 2005, pp 318–323. https://doi.org/10.1111/j.1365-2672.2004.02453.x

[9]   Fatmawati, Komposisi Kimia Fraksi Jerami Padi (Daun, Pelepah dan Batang). *Skripsi*, Fakultas Peternakan Universitas Andalas. 2004.

[10]   L. Gianfreda, & M. A. Rao, (2004). Potential Of Extra Cellular Enzymes in Remediation of Polluted Soils: A Review. *Enzyme and Microbial Technology*, *35*(4). 2004. https://doi.org/10.1016/j.enzmictec.2004.05.006

[11]   H. Haakana, A. Miettinen-Oinonen, V. Joutsjoki, A. Mantyla, P. Souminen, & J. Vehmaanpera, Cloning of Cellulase Genes from Melanocarpus Albomyces and Either Efficient Expression In Trichoderma Reesei. *Enzyme Microb Tech*, *34*, 159–167. 2004.

[12]   T. Haryati, & A. I. Sutikno, "Peningkatan Nilai Nutrisi Kulit Biji Coklat Melalui Bioproses Menggunakan Beberapa Jenis Kapang"., *J. Ilmu Dan Peternakan, 8*, 34–37. 1994

[13]   H. Hetland, M. Choct, & B. Svihus, Role of Insoluble Non-Starch Polysaccharides in Poultry Nutrition. *World's Poultry Science Journal*, *60*(4), 415–422. 2004. DOI : https://doi.org/10.1079/WPS200325

[14]   A. Kasmiran, "Pengaruh Lama Fermentasi Jerami Padi dengan Mikroorganisme Lokal terhadap Kandungan Bahan

Kering, Bahan Organik, dan Abu". *Lentera*, *11*(1), 48–52. 2011.

[15] M. A. Lemos, J. A. Teixeira, M. R. M. Domingues, M. Mota, & F. M. Gama, "The Enhancement of the Cellulolytic Activity of Cellobiohydrolase I and Endoglucanase By The Addition of Cellulose Binding Domains Derived from Trichoderma Reesei". *Enzyme and Microbial Technology*, *32*(1), 35–40. 2003. DOI : https://doi.org/10.1016/S0141-0229(02)00235-1

[16] W. F. Li, J. Y. Sun, & Z. R. Xu, (2004). "Effects of NSP Degrading Enzyme on in Vitro Digestion of Barley". *Asian-Australasian Journal of Animal Sciences*, *17*(1), 122–126. 2004. https://doi.org/10.5713/ajas.2004.122

[17] A. M. W. Mulyono, "Biokonversi Selulosa Menjadi Sumber Energi Mikrobia". *Widyatama*, *27*(1), 1–8. 2008.

[18] A. M. W. Mulyono, Sakarifikasi Jerami Padi Menggunakan Mutan Trichoderma AA1 Dan Potensi Nutritif Limbah Yang Dihasilkan Untuk Pakan Ternak. *Widyatama*, *19*(2), 27–35. 2010.

[19] A. M. W. Mulyono, "*Sediaan Inokulum Mutan Trichoderma menggunakan Bahan pembawa Kombinasi Tepung Lumpur Tanah dan Tepung beras Ketan dan Metode pembuatannya*" (Patent No. S00202108157). 2021. https://pdki-indonesia.dgip.go.id/detail/S00202108157?type=patent&keyword=sediaan+inokulum

[20] A. M. W. Mulyono, Z. Bachruddin, Zuprizal, & M. N. Cahyanto, "Nilai Nutritif Onggok-Terfermentasi Mutan Trichoderma AA1 pada Ayam Broiler". *Media Kedokteran Hewan*, *24*(3), 165–170. 2008.

[21] A. M. W. Mulyono, M. N. Cahyanto, Sardjono, Zuprizal, & Z. Bachruddin, "Mutasi Trichoderma sp. Untuk meningkatkan Sekresi Selulase". *Media Kedokteran Hewan*, *22*, 68–73. 2007.

[22] A. M. W. Mulyono, M. N. Cahyanto, Zuprizal, & Z. Bachruddin, .Fermentasi Onggok Menggunakan Mutan Trichoderma Untuk Produksi Selulase. *Agritech: Jurnal Fakultas Teknologi Pertanian UGM*, *29*(2), 53–58. 2009.

[23] T. Purwadaria, T. Haryati, J. Darma, & O. I. Munazat, "In Vitro Digestibility Evaluation of Fermented Coconut Meal Using Aspergillus Niger NRRL 337". *Buletin Peternakan*, 375–381. 2004. DOI: https://doi.org/10.21059/buletinpeternak.v0i-.5108

[24]   B. Sarwono, & H. B. Arianto, (2003). "*Penggemukan Sapi potong Secara Cepat*". Penebar Swadaya. 2003.

[25]   R. K. Sharma, & D. S. Arora, "Biodegradation of Paddy Straw Obtained from Different Geographic Locations by Means of Phlebia Spp. For Animal Feed". *Biodegradation*, *22*(1), 143–152. 2011a. DOI : https://doi.org/10.1007/s10532-010-9383-7

[26]   R. K. Sharma, & D. S. Arora,. "Solid State Degradation Of Paddy Straw By Phlebia Floridensis In The Presence Of Different Supplements For Improving Its Nutritive Status". *International Biodeterioration and Biodegradation*, *65*(7), 990–996. 2011b. DOI: https://doi.org/10.1016/j.ibiod.2011.07.007

[27]   Sulaiman. "*Studi Pembuatan Protein Mikroba dengan Ragi Amiolitik dan Ragi Simbal pada Media Padat dengan Bahan Ubi Kayu (Manihot utilissima)*". Fakultas Pertanian, Institut Pertanian Bogor. 1988.

[28]   T. Supriyati, Haryanti, I. G. M. Budiarsana, & I. K.Sutama, (2010). Fermentasi Jerami Padi Menggunakan Trichoderma viride. *Seminar Nasional Teknologi Peternakan Dan Veterner Tahun 2010*, 137–143. 2010.

[29]   W. Suryapratama, & F. M. Suhartati, "Fermentasi Jerami Padi Menggunakan White Root Fungi dan Suplementasi Saccharomyces Cerevisiae Pengaruhnya Terhadap Kecernaan Nutrien Secara In Vitro" . *Agripet*, *12*(2), 1–6. 2012.

[30]   F. Widodo, Wahyono,& Sutrisno. Kecernaan Bahan Kering, Kecernaan Bahan Organik, Produksi VFA dan NH3 Pakan Komplit Dengan Level Jerami Padi Berbeda Secara In Vitro. *Animal Agricultural Journal, 1*(1), 1–15, 2012.

Considerations To Exit Quantitative Easing In Indonesia

Amanah Abdulkadir[8]

Introduction

Quantitative easing (QE) is an unconventional monetary policy instrument employed to alleviate credit or liquidity conditions. The Central Bank expands the balance sheet. (Blinder, 2010, 465). Quantitative Tightening (QT) concludes QE by reducing the balance sheet of the Central Bank.

In 2001, Japan implemented QE for the first time. Following Japan, several other industrialized nations used quantitative easing (QE) to combat severe and persistent deflationary pressures. Emerging countries launched quantitative easing recently when deflationary pressure was just starting and their interest rates were high.

Through QE, the Bank of Indonesia enables the government and SOEs to service their debts while also pursuing spending programs. The Bank announced QE two weeks after the President acknowledged the gravity of the covid-19 pandemic. That week, Indonesia and many other countries experienced a massive capital flight during strained fiscal conditions. Therefore, four more State Owned Enterprises (SOEs) were added to the monitoring of the currency risk exposure program [1]. Already in the currency risk exposure analysis since 2014 are other giant SOEs. Pertamina (oil and natural gas), Perusahaan Listrik Negara (electricity), and the five most substantial construction SOEs. [2] The addition of the four banks is to prevent another crisis but it brings memory to Bank Indonesia Liquidity Assistance (BLBI). BLBI is an assistance scheme (loan) of Rp. 110.454 trillion, which was disbursed to obligors and debtors during the 1997-1998 financial crisis. The government decreed that the debtor's offspring and grandchildren assume responsibility

[8] Economic and Business Faculty, Universitas Singaperbangsa Karawang, amanahabdulkadir@gmail.com

for the debt if the debtor dies [3]. Unlike BLBI, QE is not a bailout program [4].

Figure 1 depicts the Indonesian government's funding needs and sources. Although the debt-to-GDP ratio is still 36 percent, the economy is exposed to any global financial disaster. Indonesia has a chronic budget deficit so the size of QE is limited. Already, 89.55 percent of the funding comes from the sale of government securities.

*Fulfilled from Governmnt Securities IDR1,289.27 tn (89.55%) and Loan IDR150.48 tn (10.45%) in 2020
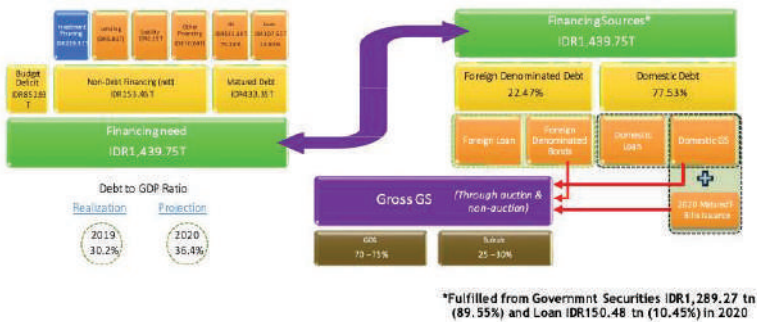
Figure 1. Financing Needs and Sources

At some time, Indonesia will have to devise an exit strategy to terminate QE. However, regardless of the strategy, the key to QE and QT is to have a stable inflation rate. QE raises inflationary pressures, but can only be effective if inflation expectations remain stable. Considerations for starting QT are important because the authority cannot maintain long-term control over inflation. It could be challenging to leave QE. The USA tried several times to quit QE. Every time it failed, the QE became even more prominent. We summarize some literature on QE about factors to consider to start QT. The writing may raise awareness of QE and QT in emerging markets with high imports and debts.

Discussion

Conventional monetary policy aims to influence interest and exchange rates to fine-tune inflation expectations. Figure 2 shows how QE and conventional monetary policy tools work.

Bartkiewicz examined 78 studies on the effects of central banks on emerging markets The studies agree on the direction of QE in Emerging Markets. However, they have not evaluated the QE's size and durability.

When a monetary authority, such as the Bank of Indonesia, suspects a potential capital flight or other uncertainty that could dry up the economy, it pours rupiah into forward exchange spot and derivative markets. Because the magnitude of the capital flight is magnified from the last period, the monetary authority is dissatisfied with the results of conventional tools. It then employs QE to conduct Triple Interventions. (1) Sell foreign currency directly on the spot market. (2) Purchase government securities in both the secondary and primary markets. (3) Actively regulate the domestic non-deliverable forward (DNDF) market's fixing to rupiah mechanism. With the fixing, importers and debtors do not need to hold as much rupiah. The Central Bank (CB), may even buy "unhealthy" companies and give them a second chance. The Bank also reduces mandatory reserves to direct more money creation by commercial banks into the real sector.
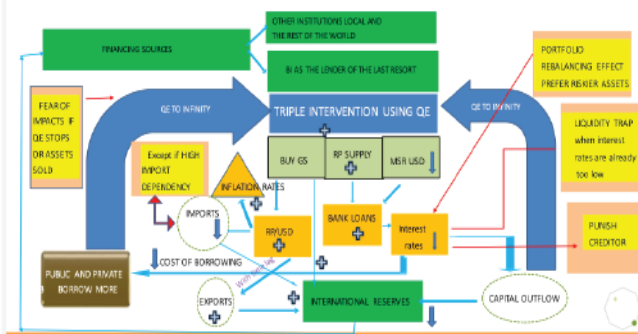
Figure 2. QE Influences

These expansionary monetary policies raise bond prices while depreciating the currency, allowing for general price increases[5]. The inflationary risk may be significant when the real sector cannot respond appropriately, as in the case of the covid-19 pandemic and the Ukraine war [6]. In short, the domestic economy will not be stimulated if the productive sector cannot absorb the new supply of money from the CB. As the rupiah falls in value, imported goods become more expensive. A country that is more reliant on imports experiences higher inflation. The depreciation will raise the already high debt service payments on sovereign debt.

There is a time lag between the occurrence of depreciation and the inflow of export revenue into international reserves. Furthermore, in the case of Indonesia, the situation may worsen because many exporters are hesitant to bring their revenues home.

Some scholars think QE is a tool with many problems. The pressure for inflation goes up because of QE. Interest rates and exchange rates are also affected by QE. In order of how strong they are, from weakest to most vigorous, the influences go through the inflationary, the portfolio balance, the liquidity and signalling channels, the announcement effect, and the fear factor Some of them only last as long as the Central Bank keeps doing them. For instance, the liquidity channel disappears when the Central Bank stops buying the asset. The rebalancing effect pushes commercial banks and private investors to buy riskier assets with higher returns than government bonds. If the rebalancing effects happen, there is a chance that the economy will have "zombies." When the real sector does not move and inflation goes up simultaneously, the economy is in a state called stagflation. The real sector may be able to get back on its feet only after companies of big debtors hire more people. In conclusion, any recovery based on quantitative easing will help those who caused the economic crisis in the first place and have the least need Another channel is the signalling impact of a potential crisis. People think that QE is being done to put off a crisis that is about to happen. Each country thinks, "If other countries use it, we should use it too, and it might keep an economic crisis from happening." The fear factor was familiar to Central Banks, who watched market volatility when the Federal Reserve of America (the Fed) added its QE. Some scholars believe the probability of fear's existence is more significant than inflation's. A study by Toloui concluded that the critical causal channel for unconventional policies was their impact on market expectations for the Fed's future policy reaction function.

QE also might not work for the following reasons. Well-informed investors postpone their decision, considering the volatility in the capital market is unavoidable and can be more often or deeper than when the QE started. Banks may be reluctant to lend more to the real sector if the interest rates are too low or if the actual market is still weak, like when the industry is numb to the corona-19 disease. Banks and investors then invest in sovereign papers or technologies that shield them from volatility and add to their competitiveness. Therefore, as with conventional intervention, QE will not be effective in pursuing more household loans.

In addition, persistently low-interest rates from implementing QE may generate dangerous side effects such as asset bubbles and rising wealth inequality At the very least, implementing QE may disrupt disciplines in the capital market with possible misallocation of economic resources. There are other considerations for discontinuing Q.E. First; the economy has stabilized. Second,

investor confidence needs to be maintained by giving control over the money supply and monetary policy needs to the Central Bank. Third, high debt monetization needs to be prevented.

When its goal of stabilizing the economy has been accomplished, QE must be stopped. However, some countries prefer to delay the start of QT. They fear that restoring the inflated balance sheets to their pre-crisis levels could result in substantial increases in sovereign bond yields and would be highly detrimental to the financial system's stabilityTable 1 summarizes the distinctions between QE and QT.

Table 1. Differences between QE and QT

		QE	QT
1	Goal	To prevent an economic crisis by providing liquidity(to fight against deflation in Advanced Countries) To prevent debt crisis by providing liquidity to service or add debt (in Emerging Countries)	To prevent an economic crisis by reducing liquidity (to fight against inflation)
2	Condition at start		
	Advanced Countries	Low-interest rates	High inflation rates
	Emerging Countries	Medium or high-interest rate, high debt services, or big debt mature	High or higher debt burden, high inflation rates
3	Market Clue	Other country starts their QE	As soon as the US or other advanced countries start QT As planned in the decree (in 2023) After the general election (in 2025) Anytime when the growth of debt held by BI is faster than the growth of MS created
4	Amount of money and time of intervention	Gigantic and abrupt	moderate and abrupt or gradually

		QE	QT
5	Policy	Lower mandatory reserves, decrease interest rates, buy securities	Increase mandatory reserves, increase interest rates, sell securities / do not renew old ones
6	CB balance sheet	Swollen	Deplete
7	Market reaction	Decrease volatility	Increase Volatility
8	Decision to start	QE in other countries starts	Does not always follow the starts of QT in the US/other countries
9	Impact	A substantial rise in asset prices	A significant but not substantial decrease in asset prices

The Indonesian government would likely find justifications to keep utilizing QE in 2022 and 2023. According to Emergency Law No. 2/2020, the situation would last only till 2023. Indonesia will have a general election in 2024. In those two years, the incumbent government tends to spend more. The government needs to restrain its spending and avoid debt monetization through QE. Debt monetization is a process of turning government debt and private corporate debt into money. It is the practice of a government borrowing money from the central bank rather than selling bonds to private investors or increasing taxes to pay public spending. The government usually monetized its deficit to the CB. Evidence of debt monetization is the disparity between actual and targeted interest rates and debt growth. The rise of sovereign debt held by the CB could be used as a signal of debt monetization only if these other money-related characteristics remain unaltered [7], Less government spending will enhance investor confidence.

There is currently no rule in Indonesia or the US governing the maximum amount of publicly held national debt that CB may possess. Currently, the Federal Reserve holds around 25% of the US federal debt, which amounts to 125 percent of the country's yearly GDP. If the CB starts acting as the lender of first resort rather than last resort, debt monetization has reached its maximum level.

The Bank of Indonesia must stick to the timeline and retake control of the money supply and independence in setting monetary policy to stabilize inflation and defend the rupiah. Otherwise, the cost

of borrowing will be higher, and the debt cycle will never improve. QT should be well established in 2023 because investor confidence must be restored.

Conclusion

Bank of Indonesia started the QE when the market could not absorb government securities fully, and SOEs and banks desperately needed more injections. The inflationary risk is unavoidable with the covid-19 pandemic and the Ukraine war because the productive sector was numb. In addition, the longer the monetary authority uses QE, the more significant the depreciation and the higher the cost of borrowing from foreign and domestic creditors. It is better if BI can start QE as the inflation rates or depreciation are above the expectation, or no longer than 2023.

Refrences

[1] The 2020 report that consolidates the balance sheet of the Government and the most critical SOEs) listed four state-owned banks : Bank Mandiri, Bank Negara Indonesia, Bank Rakyat Indonesia, Bank Tabungan Negara.
[2] PT Adhi Karya, PT Hutama Karya, PT Pembangunan Perumahan, PT Waskita Karya, and PT Wijaya Karya.
[3] Regulation Number 28/2022 concerning Management of State Receivables by the State Receivables Affairs Committee, September 7, 2022.
[4] In August 2021, at the inauguration of the State Billing Rights Task Force (Satgas) related to the BLBI case, the Minister of Finance stated that the government is still providing BLBI funds to the central bank. https://voi.id/en/economy/78685/the-long-road-to-the-blbi-case-that-loses-hundreds-of-trillions-to-the-state-and-the-summoning-of-tommy-suharto
[5] Remember the Quantity Theory of Money
[6] D. Caldara, S. Conlisk, M. Iacoviello, and Maddie Penn, 2022 May 27, *The Effect of the War in Ukraine on Global Activity and Inflation*, Ferderalserve.gov,
 https://www.federalreserve.gov/econres/notes/feds-notes/the-effect-of-the-war-in-ukraine-on-global-activity-and-inflation-20220527.html
[7] Thorton, https://files.stlouisfed.org/files/htdocs/publications/review/84/12/Monetizing_Dec1984.pdf.

Optimizing Women Leadership and the Role of Women in Coming to the Era of Society 5.0 in Indonesia

Andiwi Mefilina

Introduction

As time goes on, with all its influence and power, we are no longer faced withera 4.0, where all production processes use technology, but we are already dealing with the era of society 5.0. As we already know, Indonesian women today are not women who existed in the past. Where women are just individuals who are identical with 'kitchens, wells, mattresses'. But now everything is much different, because women can now learn to explore as much knowledge as possible, women have the opportunity to become leaders and other gender equality, including freely using existing information technology.

A leader is a person who has skills and advantages, especially skills / strengths in one field so that he is able to influence others to jointly carry out certain activities for the achievement of one or more goals [1]. And also leadership involves a process of social influence which in this case is the deliberate influence exerted by one person on others to structure activities and relationships within a group [3]. Women through their leadership in the family are the key to the civilization of a nation. Especially in welcoming the era of society 5.0, every individual is required to be ready to face challenges and social problems by utilizing various innovations. For this reason, women's leadership in Indonesia needs to be optimized in a wider scope and support from all parties to build and support women's awareness in Indonesia to participate in various fields, including in decision-making positions for the benefit of society and the nation.

In addition, so that more and more Indonesian women occupy strategic positions and excel at the national or global level. Women today must be able to take an active strategic role through the contribution of thoughts, ideas, and views towards nation building, in accordance with the sensitivity and social intelligence that are their strengths. Women must also empower their potential and improve their quality so as to give birth to creativity, innovation, constructive thinking in the perspective of gender equality in all lines of people's lives. The hope of the nation is that at this time women must be able to become pioneers or initiators of goodness.

Historically, the role of women in Indonesia has been recorded since the time of Kartini's struggle, then a ministry emerged that handled the affairs of the role of women in the cabinet in 1978, until it continues today.RA Kartini is an important role model for Indonesian women. She is a figure who fights for women's rights such as the right to study in school and the right to lead an organization. Eagly stated that a woman has a democratic nature and a high sense of caring so that a woman figure is competent to become a leader in an organization [1]. Various activities to promote women continue to be promoted by the government, including the issuance of Presidential Instruction No. 9/2000 on Gender Mainstreaming in National Development to integrate gender equality into national development policies, programs and activities. The presence of this very advanced thinking when compared to what has happened in many other countries in the world by adopting a gender mainstreaming strategy, Indonesia aspires that everyone, women and men, must be taken into account in development so that there are no gaps and backwardness.

Women's Leadership

Women are part of a larger society than men. The creation of men and women has the same position, degree, rights and obligations. In Javanese philosophy, women have the meaning of "wani laid out" or dare to be arranged. The development of the times, especially in meeting the needs of a decent life, makes women take part in all fields. Economic pressures, especially for the lower classes, require women to also play a role by participating in work. The work that was originally done by women only in the household environment has now shifted as the backbone of the family economy. This means that the current customary philosophy is no longer relevant where women should receive economic protection from their husbands and get a higher place. In culture and customs in Indonesia, women have positioned a higher degree, but in line with the shifting of women's roles to a wider dimension, especially in the reform era in Indonesia, it has given great hope for women. The rise of women in the era of globalization has brought changes in the development of development no longer as mere wives or mothers, but has been oriented to the quality of their existence as human beings.

Women's leadership style

The position of women not only as a development process but also as a foundation that supports development is a necessity because it is in line with the women's emancipation movement such as the

figure of Raden Ajeng Kartini. The emancipation and gender movement essentially seeks equality of women's rights in various fields of life so that it slowly shifts the stigma about the woman herself. is no longer seen as a weak figure but has the same ability to be at the top of his career. Women's comprehensive leadership style along with other positive values make them suitable for top manager or leadership positions. Many female world leaders have become role models such as Margaret Teacher in England, Indira Gandhi in India, Cory Aquino in the Philippines who is able to position herself as a smart woman by not seeing herself as a weak woman but strength & intelligence in placing herself at home, the world of work, places of worship, and the community. The role of women now indirectly has an extra position that cannot be replaced by men. By providing opportunities and encouraging women to play a role as leaders, governments and organizations.

Basically, women have the basic traits to succeed as leaders. They tend to be more patient, empathetic, and multitasking. Women also have a talent for networking and negotiating. According to Helen Fisher, these abilities are, of course, not exclusive to women. However, compared to men, women tend to show these traits more often [4]. Women are also responsible and like to overcome challenges in their work.Since ancient times, women and men have done different jobs. The tasks they perform require different skills. These cultural factors also influence how women and men act and think. This cultural factor is also seen in the organization. Men are required to be firm in leading. But when a woman is assertive, she is often called aggressive. Most male leaders also mentor their male subordinates. It is still rare for male leaders to mentor women.

Women and the Technological Challenge

In this era of society 5.0, women should not be mere connoisseurs, but movers of national civilization, becoming leaders in the midst of technological challenges that are increasingly rapidly developing. Women must also be wise in technology, such as utilizing existing technology, and avoiding possible crimes that occur in this era of digital technology. Today's Indonesian woman must be a woman who is technology literate or digital literate, moreover she will be the first school for her children in the future. The role of women in the family, of course, is to provide education to the family, especially for children. Then, it becomes control in terms of association, how to accompany children with the era of technology that continues to advance today.

With this 5.0 era, women in Indonesia will be able to more freely express, be creative, explore themselves with existing technology. Not only that, girlIn Indonesia, they can become public figures, content creators, MUA, sellers and other professions, which will be easier for people to recognize and the market will be wider if they master digital technology. Because actually in the 5.0 era, it is how humans can adapt to existing information technology, so that people's living standards can be even better. On the other hand, if women are left behind in the knowledge of the era of society 5.0, then women today will be worse off and what will the future generation of the nation be like? Therefore, the role of women in Indonesia must be ready and able to answer the challenges of the times they face. Women must be intelligent and are not expected to be inferior to artificial intelligence (artificial intelligence). Indonesian women must strive to move forward and show their abilities and identity as productive, innovative, creative, and inclusive "mothers of the nation". Whereas in the future, the challenges for Indonesian women in carrying out their roles and functions in the digital era will certainly not be easy because theyociety 5.0 was created as a solution to Revolution 4.0 which was also feared to degrade humanity and human character. Therefore, in the era of Society 5.0, character values must be developed, empathy and tolerance must continue to be strengthened and nurtured along with the development of competence and critical, innovative, and creative thinking.

The current era of Society 5.0 aims to integrate virtual space and physical space into one, so that everything becomes easy with artificial intelligence in transforming into big data collected via the internet in all walks of life. In addition, it also becomes a new wisdom to be dedicated in improving human abilities, opening up opportunities for humanity. This transformation will help humans to live more meaningful lives where a touch of humanism in the concept of Society 5.0 will be the basic capital in this era. Technological advances in the era of Society 5.0, will create various opportunities by increasing women's access to education, careers, and self-actualization. But on the other hand it will also bring up various challenges, including the increasingly competitive world of work, changing parenting patterns in the family, and how to divide and balance the roles of women in the family and society. Therefore, so that women in Indonesia can seize opportunities and overcome these challenges, one solution is to reaffirm the role of the family by improving relations between family members, improving family functions, developing norms and cultural standards, forming media

literate families or digital and information literacy, and apply democratic communication patterns.

Refrences

[1] A. H. Eagly and B. T. Johnson, *Gender and Leadership style: A Meta Analysis*. CHIP Documents, 1990, Paper 11.

[2] L. Gibson, James, *Organization, Behavior, Structure and Process. 5th Edition. 3rd Printing,* Jakarta, Erlangga Publisher, 2005.

[3] H. Pasolang, *Bureaucratic Leadership,* Bandung, Alfabeta, 2010

[4] A. Fitriani, Women's Leadership Style*, Journal of TAPIs, 11*(2), 1-24, 2015.

Ibn Sina's Thought on Human Being: An Account on Philosophy of Islamic Education

Arba'iyah Yusuf[1],Muh. Tajab[2]

Introduction

Ibn Sina's notion of the human being must be discussed, because the notion of the human being provide an entry to discussion of the philosophy of Islamic Education. This article discusses two aspects: human existence and the elements of the human being. The former presents the idea of human existence in relation to the Creator, while the letter presents Ibn Sina's view on the human body and human soul.

Discussion
Human existence

The concept of existence has always been very important for three groups: theologians [1], philosophers , and mystics or sufis. All three groups discuss both the existence of God and the existence of the universe. For understanding Ibn Sina's view on human existence, his views on God's existence cannot be neglected, for, to him as to other philosophers, al-Farabi for example, God is the giver of existence. According to Ibn Sina, as Fazlur Rahman explains "the sole principle of individual existence is God- the giver of existence; matter is the occasional cause of existence, supplying external attribute of multiplicity [2]." "God is unique in that he is the necessary being; everything else is contingent in itself and depends for its existence upon God" Ibn Sina posits God's existence as necessary, and explains that human existence is the proof of His existence.

This position or view is as pointed out by Netton, by no means unique to Ibn Sina but also deployed by al-Farabi who was, indeed , its instigator, it rested upon the firm distinction that Ibn Sina made between that which is necessary and that which is possible or contingent. This is perhaps Ibn Sina's most famous proof and the one that had the most wide-ranging influence in both the east and the

---

[1] English Education Study Program, Faculty of Teacher Training and Education, Sunan Ampel State Islamic University Surabaya, arba.gusti@gmail.com

[2] Islamic Religious Education Masters Study Program, University of Muhammadiyah Ponorogo, muh.tajab@umpo.ac.id

west. It runs as follows: every being which exists can be classified as either necessary (wajib) or possible/contingent (mumkin). Possible being is define as that whose non-existence does not produce an impossibility. In other words, it does not have hypothetical non-existence would result in an impossibility: that is , it must exist. Now it is in the nature of possible being that it is dependent or contingent. In view of the impossibility for Ibn Sina of an infinite regress of possible beings, the series of possible beings therefore originates from some being who owes his existence to himself and in whom, uniquely, essence, and existence are merged.

That necessary being is, of course, God himself [3]. God, therefore, is the first cause. This idea is elucidated by Ibn Sina [4] in terms of his theory of emanation, which seeks to explain "how the many are brought forth from the one who is the same time transcendent with respect to all multiplicity [5]." Ibn Sina's [6] cosmology and cosmonogy aim at depicting the continuity that exists between the principle and its manifestation [7].

The Elements of Human Beings

It is clear from Ibn Sina's idea of emanation that human beings are part of the world of generation and corruption which emanates from the tenth Intellect. Thus, the human being is part of creation and a "possible'being. The human being consists, according to Ibn Sina, of two elements, the body and the soul. In the words of Fazlur Rahman, "the soul is to the body as the pilot is to the ship ." The discussion of the two elements of the human being in this part will be followed by a discussion of the power possessed by human being to reach a position of perfection.

A. Body

Ibn Sina's view on the body may be studied with reference to his Metaphysics where he talks at length about the body in general. He also discusses the body, specifically that of the human being, in his discussion of psychology. The latter discussion will form part of the section on the soul.

Ibn Sina's basic view of the body is the following:
Substance which is body [jism], is a composite [murakkab] of matter [madda] and form [sura]. Accordingly, body is that substance [jauhar] into which one can place [numudan] a first longitude [i.e., a straight line] and another longitude in the figure of a cross [khalipa] such that the second intersect

with the first without being inclined in a horizontal direction [8].

Thus, a body is such an entity that, if one posits a longitude on it, another longitude will be found intersecting it at a right angle, and a third longitude of these two lengths will stand as a perpendicular on the point of the previous intersection. Whatever can be placed under these three magnitudes in the aforesaid manner and is also a substance is called a body [9].

This basic conception of the body holds for kinds of body without any differentiation, given that the difference of bodies is based on form, not matter, and body itself is matter. The human body, according to Ibn Sina, plays the role of matter for the soul [10]. Under the influebce of Aristotle, Ibn Sina is also attracted to Plato's notion of the body as the prison of the soul. Ibn Sina holds that the study of man belongs, first of all, to the science of nature, since man's body as a living being is a natural phenomenon which is the object of this science. To Ibn Sina, " the sole principle of individual existence is God—the Giver of existence: matter is the occasional cause of the existence, supplying external attributes of multiplicity."

B. The Soul
    It is said by B.C. Law in his writing "Avicenna and His Theory of the Soul",

> According to Avicenna the soul has come down upon human life. It is radiant in its beauty and liveness, although it is invisible. As it resides in human body, it is tormented by griefs. The soul formally dwelt freely in the high abode, till at last it is encaged in human body. It seems that its coming down was necessary woe. God brought it low with a wise purpose unknown to men. Although human body retarded its onward movement and entangled it in the narrow cage of the body, after all it was a lightning-flash that brightly glowed upon human beings for a moment and then it was hidden, leaving no trace behind [11].

The above quotation shows that there is a close relationship between the existence of the body and the existence of the soul. Further, the human being can be called 'alive' when the soul comes down to the world and resides in the body. The soul itself is defined by Ibn Sina as the "the entelechy of a natural body possesing organs."

He also states that "the soul is not a mere mixture or harmony of the elements but something over and above it." Ibn Sina further asserts: 1. That soul is form in relation to body, which is matter. 2. That soul is a substance in the sense that it is immortal. As form, the soul is the perfection of the body, whereas the latter pint signifies that there is no relation between the soul and the body.

In characterizing the soul as the perfection of the human body, Ibn Sina describes several kinds of soul:

> 1) First, the vegetative soul is the first perfection of the organic natural body insofar as it reproduces, grows, and is nourished; 2) Second, the animal soul, which is the first perfection of the organic natural body insofar as it perceives particular and moves into its body according to the will; 3) Third, the human soul which is the first perfection of the organic natural body insofar as it commits acts of rational choice, deduction through opinion, and insofar as it invents art (industry) and perceives universal rational ideas.

According to the Jamalpur, the third kind (i.e., "the human soul which is the first perfection of the organic natural body insofar as it commits acts of rational choice...") refers to what is meant by the soul as the substance. This is the human soul as the immaterial, intellectual, individual substance which is the first perfection of the human body, yet is independent of the body. Ibn Sina [12] asserts that each soul possesses several powers of faculties which become the basis of differentiation between the three kinds of soul, i.e., the vegetative soul, the animal soul, and the rational soul. The following divisions will explain these faculties of the soul.

1. The vegetative soul

The vegetative soul is the first perfection of the organic natural body insofar as it reproduces, grows, and is nourished. In the view of Ibn Sina, the vegetative soul possesses three faculties, i.e., the faculty of reproduction, the faculty of nutrition, and the faculty of growth. The faculty of nutrition transmits food and replaces what has been dissolved with it. The faculty of growth increases the substance of the main structural organs in length, breadth, and depth, not haphazardly but in such a way that they can reach the utmost perfection of growth. The faculty of reproduction or the reproductive faculty takes from the body in which it resides a part which is potentially similar to bodies as such, generating and mixing it so as to render that part actually similar to the body (to which actually it had been only potetially similar).

2. The animal soul

The animal soul is "the first entelecy of a natural body possessing organs in so far as it perceives individuals and moves by volition." The animal soul, Ibn Sina says, has two chief faculties: 1) The motive faculty; and 2) The cognitive faculty. The motive faculty is of two kinds : the stimulative faculty and the efficient faculty [13]. The stimulative faculty is motive in so far as it gives an impulse. This faculty has two subdivisions: the faculty of dsire and the faculty of anger. The faculty of desire provokes a movement (of the organ) that brings one near to things imagined to be necessary or useful in the search for pleasure.

The faculty of anger impels the subject to a movement of the limbs in order to repulse things imagined to be harmful or destructive, and thus to overcome them. The efficient faculty is motive in so far as it is active. It is a power which is distributed through the nerves and muscles, and its function is to contract the muscles and to pull the tendons and ligaments toward the starting-point of the movement, or to relax them or stretch them so that they move away from the starting point.

The cognitive faculty (also called the perspective faculty), can be divided into the external sense and the internal sense [14]. The external senses, Ibn Sina says, are five or eight, though he lists only five. Nor do scholars writing on Ibn Sina explain what he might mean by eight senses. The five senses are, of course, sight, hearing, smell, taste, and touch.

3. The rational soul or the human rational soul

The human rational soul is "the first entechy of a natural body possessing organs insofar as it acts by rational choice and rational deduction and insofar as it perceives universas." The human rational soul is of two kinds: a practical faculty and a theoretical faculty in which both of these are equivocally called intelligence [15].

The practical faculty has a certain correspondence with faculties of stimulation, imagination, and estimation possessed by animals. The function of this faculty is "as the principle of movement of the human body, which urges it to individual actions characterized by deliberation and in accordance with the purposive consideration."

The relation of this faculty to the animal faculty of stimulation is that "certain states arise in it peculiar to man by which it is disposed to quick actions and passions such as shame, laughter, and weeping." Next, its relation to the animal faculty of imagination and estimation is that "it uses that faculty to deduce human arts [16]."

The preceding detailed discussion of the human soul gives a clear view of all the faculties of the soul. Those faculties are imporatnt in the life of the human beings, since every faculty contributes uniquely to the life experience. It is important to note that Ibn Sina's conception [12] of the soul [17] is parallel to al-Farabi's [18].

Finally, intellectus adeptus or acquisitus is the highest stage open to man, excluding the prophet who enjoy a special state because of the total perfection of their nature. Above these levels of the intellect stands the universal, or Active intellect, through whom all knowledge is received by illumination and with whom the human intellect at its most exalted level becomes united.

Conclusion

There is close connection among human existence, human body, and human soul. Since human being is existing because of two things: human body and human soul. In term of philosophy of Islamic education is more for human soul. However human soul soul must exist at its home called human body.

The Ibn Sina's conception of the soul is parallel to al-Farabi's. This similarity is quite easy to understand since al-Farabi was his second teacher after Aristotle. Ibn Sina's treatment of the rational soul shows the influence, besides al-Farabi, of al-Kindi, the first famous Muslim Philosopher.

References

[1]   Jami, *Durrah al-Fakhirah fi Tahqiq Madhhab al-Sufiyah wa al-Mutakalimin wa al-Hukama al-Mutaqaddimin*. Tehran: Danishga-I Tihran, 1980.

[2]   Fazlur Rahman, *"Ibn Sina", A History of Muslim Philosophy*. Karachi: Royal Book Company, 1963.

[3]   Ian Richard Netton, *Allah Transcendent: Studies in the structure and semiotics of Islamic Philosophy, Theology, and Cosmology*. London and New York: Routletge, 1989.

[4]   Ibn Sina, *Al-Isarat wa al-Tanbihat*. Cairo: Dar al-Maarif, 1947.

[5]   Seyyed Hossein Nasr, *Three Muslim Sages: Avicenna, Suhrawardi, Ibn 'Arabi*. New York: Caravan Book, 1964.

[6]   Ibn Sina, *Fi Ithbat al-Nubuwat*. Beirut: Dar al-Nahar, 1968.

[7]   Ibn Sina, *Kitab al-Najat*. Cairo, 1938.

[8]   Parviz Morewedge, *The Metaphysica of Avicenna (Ibn Sīnā) A Critical Translation Commentary and Analysis of the Fundamental Arguments in Avicenna's Metaphysica in the 'Dānish Nāma-i "Alā'ī" ('The Book of Scientific Knowledge')*.

London: Routledge, 1973.

[9]   A. B. I. Tufail, *Abu Bakr Ibn Tufail, The History of Hayy Ibn Yaqzan*. New York: Fraderik A. Stokes Company, 1929.

[10]   Bahran Jamalphur, "God and Man : A historical and Critical Comparison of Ibn Sina and Molavi within the Esoteric Iranian Tradition of Islamic Philosophy," University of Notre Dame, 1970.

[11]   B. C. Law, *Avicenna and His Theory of the Soul*. Calcuta: Avicenna Commemoration Volume, 1956.

[12]   S. Reza, "Konsep Nafs Menurut Ibnu Sina," *Kalimah*, vol. 12, no. 2, p. 263, 2014, doi: 10.21111/klm.v12i2.239.

[13]   M. Waliur-Rahman, *The Psychology of Ibn Sina*. Islamic Culture 9, 1935.

[14]   M. K. H. Irqsusi and H. M. Uthman, *Ibn Sina Wa-Al-Nafs Al-Insaniyah*. Mu Assasat Al-Risalah, 1982.

[15]   Henry Corbin, *Avicenna and the Visionary Recital*. Princeton, New Jersey: Princeton University Press, 1988.

[16]   William E. Gohlman, *The Life of Ibn Sina: A Critical Edition and Annotated Translation (Studies in Islamic Philosophy Science)*. New York: State University of New York Press, 1974.

[17]   M. Miovic, "An Introduction to Spiritual Psychology: Overview of the Literature, East and West," *Harv. Rev. Psychiatry*, vol. 12, no. 2, pp. 105–115, 2004, doi: 10.1080/10673220490447209.

[18]   Fuad Said Haddad, *Alfarabi's theory of Communication*. Beirut: The American University of Beirut, 1989

.

Civic Education the Context of Developing Digital Literacy for Global Citizens

Ardhana Januar Mahardhani[1], Rudi Ruhardi[2]

Introduction

At this time the importance of digital literacy is needed to be applied to students. The number of internet network users and digital media at the age of teenagers, children and adults, along with the easy way of accessing only by using a smartphone, this can have a bad impact on teenagers and children in Indonesia. The number of Indonesian teenagers and children accessing the internet network, social media without minimal attention or supervision from parents, can have a bad impact on teenagers and children where this will lead to negative behavior, because there is no information contained in social media. or the internet network is suitable to be followed or consumed among teenagers and children in Indonesia.

The Ministry of Communications and Information Technology in 2014 conducted a study with the results reaching around 30 million uses of social media involving children and teenagers in Indonesia. The negative impact arising from the use of social media is that there will be social deviation behavior in society. Children will easily imitate inappropriate actions in society, so the need for supervision, regular assistance by parents is very important. The information on the internet is very easy and can be imitated by children if there is no control, children and teenagers are very observant of what they see and will definitely be imitated because they have not been able to distinguish between appropriate norms or not. The internet network is getting more advanced and entering the villages, there are also more and more digital media. This is shown from the data that internet users with a percentage of 80% of 30 million are children [1]. The majority of them access the internet using media such as computer gadgets and laptops.

There are several things that affect children's motivation to play social media, including 1) As a means of filling spare time, 2)

[1] University of Muhammadiyah Ponorogo
[2] Institut Islam Studies Muhammadiyah Pacitan

media to find information and as a means of communication between friends and family. The results of research by the ministry of communication and informatics show that many children in Indonesia use social media in their daily lives and this social media has become a part of themselves. The study also showed unexpected results, namely 90% of children in Indonesia understand and use the internet with a percentage of 79.5%, children provide personal data such as home address, full name, telephone number, email, school, education , place of birth and names of parents. The role of parents in supervising and educating children in using the media is very important [2] so as not to fall into something that is not in harmony with Indonesian society, in the current era parents in supervising their children are very limited, because most parents are busy with the activities they do and are also busy with the work they are doing. Parental supervision will have an impact because the speed of social media is sometimes unstoppable.

In this case, the importance of digital literacy in children is intended to be able to filter the news that has been presented on the internet. Digital literacy can be interpreted as a person's ability to understand, then be able to analyze, assess, and implement digital technology properly [3], [4]. Digital literacy is the ability to know correctly and to interpret information presented in social media as a whole.

As for some research data in the ministry, it is stated that the use of the internet in the digital world cannot be separated from the daily activities of children in Indonesia. The number of digital media users makes many social problems that occur, this is due to the lack of parental assistance. This can trigger a negative impact on adolescent behavior. The emergence of negative traits in children comes from information that is not suitable for consumption on social media and the internet. In addition, this will trigger negative behavior in children, for example, acts of bullying, a culture of cursing and berating that appear on social media, as we often see on social media such as Instagram, Facebook, Twitter, and bad behavior that is intentionally spread in social media.

The emergence of a bad attitude due to opening negative content without any monitoring and supervision from parents,

sometimes arises because of the lack of parental attention to their children regarding the use of social media, as well as the lack of parental knowledge of digital technology, therefore parents are required to do this. restrictions on the use of smartphones to reduce the negative impacts arising from social media. It is hoped that with the Civic Education subject, educators can grow norms and values through the integration of digital literacy to students. This can be done through increasing understanding and knowledge of digital literacy, as well as strengthening soft skills and hard skills in adapting to new technologies.

In the subject of civics education, it is hoped that it can play an important role in growing students' digital ethics as part of young citizens. The existence of responsibility and students' understanding of procedures for using social media positively and communicating properly and safely. Citizenship education can provide a fairly good contribution to improving the character of reading pleasure and also good morals and in accordance with Indonesian culture and character.

Civics education lessons can be effectively used as a means to improve and develop digital literacy for students, if teachers implement appropriate learning models. In the process of learning civics education in schools, there are many things that must be strengthened when there is a phenomenon about the weakening of parental assistance to their children related to the use of social media by children. Schools can overcome this through teachers, by growing and instilling and developing digital literacy for students through civics education learning which is one of the right teaching materials to strengthen the character of citizens.

Discussion
Interpreting Citizenship Education Materials as Strengthening the Identity of the Indonesian Nation

There are several implementations of civic education in the world. The approach model used varies according to the characteristics of the region. Civic education that is used in various countries is through cross-curricular learning techniques where it is integrated or included in social science subjects, history and is used as a separate subject. Civic education is a lesson that is able to prepare the younger generation to become citizens with the skills,

understanding, and qualities needed to fulfill the rights and obligations of citizenship in a global context. [5]. In practice, citizenship education in Indonesia is seen as one of the disciplines that focuses on developing citizens to be skilled, intelligent, and understand Pancasila and the Constitution. In civic education, the important mission is to develop smart and good citizens.

Citizenship Education is a means of character education that has a full vision and mission, namely building citizen competencies which include the ability to develop citizens' self, citizen character, citizen knowledge, citizen confidence, and citizen commitment. [6] seen from the conceptual and pedagogical aspects as well as socio-cultural and psychological aspects.This is to implement and form students who have the nature of the national spirit and a sense of love for the homeland, in accordance with the values contained in Pancasila and the Constitution of the Republic of Indonesia, as well as a commitment to *Bhinneka Tunggal Ika*.

In dealing with the complexities of society and the problems of each individual in the field of civic education proactively, it is hoped that they will be able to contribute to growing and facing awareness of democratic procedures. Citizenship Education, the aim is to teach values related to humanity, openness, empathy, negotiation, equality, and awareness of love for the natural environment.

The purpose of civic education is to direct students as individuals who are able to act and think democratically. Where for civic education refers to students who have the competence of knowledge and basic skills where this can indirectly apply critical things in living everyday life. Citizenship Education has a relationship with strengthening and developing and strengthening student character. [7].

Digital Citizenship: Current Views

People who are aware of the good and the bad show the intelligence of technological behavior and make the right choices when using technology is the understanding of the digital citizen. How is it different from digital citizenship. Digital citizenship is appropriate norms or responsible behavior by paying attention to the use of

technology or it can be a concept that can be used to provide knowledge about the use of cyber technology properly.

Digital citizenship is the behavior or norms of how a person uses information technology well. Similarly, when we live side by side in a school or community environment, in cyberspace we also need ethics or rules in communicating and socializing well, for example, choosing the right use of words in digital communication. Not offending other parties in status updates, the meaning here is that before we update or post we must first think about whether our posts can offend other parties or not is also one of the ethics in digital citizenship. Furthermore, we also need to protect our privacy data that should not be carelessly given to other people, for example, such as giving a home address and then providing an identity number. Finally, in our code of conduct as digital citizens, we don't need to open suspicious links because when we open suspicious links, it usually brings up harmful links and can be used by irresponsible people to do things like theft. Not spreading hate speech or fake news is also important and must be used as a guide so that our digital life can be comfortable.

The components in digital citizenship include: first, citizens who have digital access (full electronic participation); second, digital communication; third, digital literacy, namely the teaching and learning process about technology and the use of technology; fourth digital ethics, namely standards of behavior in using media digital and internet; fifth, digital law, namely responsibility for actions and actions using electronics; sixth, digital security, namely electronic prevention measures to protect students, community groups, organizations and citizens; seventh, digital fitness and wellbeing, namely physical health and psychology in the digital world; eighth, digital rights and responsibilities [8].

Citizenship Ethics as a Global Citizen

Ethics in digital citizenship is the norm of honest, responsible, and caring behavior related to the use of information and communication technology. The concept in digital citizenship ethics is to provide awareness of the responsible use of information technology in cyberspace. Digital citizenship is the behavior of people

in using information technology honestly and responsibly. In the virtual world we must also pay attention to good rules and manners and when socializing in the real world we must be smart in choosing the right words in communicating, as well as in the virtual world so we strive when we communicate in the virtual world. not offend the other party. In a food status update like that, before we update or post our activities or something that we will appear in cyberspace, we must first think about whether this will offend others or not. Another example is that we must not spread hatred regarding certain ethnic groups, races and groups. There are three components of the implementation of digital citizenship, namely the learning environment, the school environment, and the out-of-school environment where each of these components is interconnected.

The act of violating the law is the activity of stealing personal data, as well as other people's property. In Indonesia, this activity is categorized into 5 aspects, namely: 1) copyright; 2) trademark; 3) slander and defamation; 4) privacy; and 5) jurisdiction in cyber space for example as we know many cases of defamation occur, which are carried out by irresponsible people and as a result they will be exposed to these cases.

Then the second is digital transactions or digital commerce, currently there are lots of buying and selling sites that can be easily accessed by sellers and buyers online, so for that the seller and buyer transaction process needs to be aware of the advantages and risks obtained from each transaction. on line. For this reason, it is also necessary to know the advantages and disadvantages of digital transactions because currently there are many cases of fraud in cyberspace in the name of digital transactions. Another thing is digital health, which has talked about the benefits of digital technology, it turns out that behind the benefits of digital technology there are health threats as well. It is necessary to pay attention to the health of the eyes, hands, and even the whole body. When we play gadgets sometimes we don't feel like it looks for a moment but for hours it will make our bodies less mobile and exposed to radiation, besides affecting physical health it also affects mental health. If you do not regulate the use of digital technology proportionally because there are

so many cases, such as online game addiction, which often occurs in school-age children.

Understanding the ethics of digital citizenship, the first is a creative commons license, which is a non-profit organization that aims to expand the scope of creative work so that the work is feasible. The work is used by others knowingly to use this license, there are two codes, the first is in the owner of the original work and the second is the possibility of derivative works from the same license, then the third is non-commercial, a work may be used for commercial purposes.

Citizenship Education as a Barrier to Digital Progress

In the development of student character that through civic education it will be more effective if the institution provides civic education material by giving students the opportunity to explore themselves and their surrounding environment. When learning takes place very effectively, it will encourage the growth and development of the quality of students in applying Pancasila values and will be able to actively participate in democratic activities in society. Teachers must innovate and attract students to participate in various positive activities as a form of love for the homeland, it is necessary to have ideas and strategies to encourage students to achieve the expected learning goals.

Learning that is done well and continuously will have an impact on the ability and habituation of students, if the teacher does examples or various forms of implementation that are not good it will be imitated by students, to avoid things that are not desirable then the need for supervision and teachers must provide good examples in life daily. Because basically students will see what a teacher is doing, and a teacher must be careful in acting so as not to be imitated by students. It can be concluded that the bottom line is that a teacher is a role model for students, so a teacher must maintain attitudes and behavior and speech so that students imitate and carry out good behavior and can be applied in the school environment or community environment. This is in line with research which results that a teacher has a positive impact on the development and character of students while at school.

This factor determines the character formation of students while in school.

The school environment and student life are core components in the implementation of learning. In a digital access-based learning environment, the main thing is the acquisition of equal rights in accessing information technology facilities intelligently and responsibly. The meaning of being smart and responsible here is that in choosing information we must be smart and responsible for all the activities we do in cyberspace. Communication between students and teachers must also be intense to find out various things that can be accessed using digital media. Nowadays, there are many types of digital media that we use so that every digital citizen must know the advantages and disadvantages of this type of communication media so that later they can choose the right media usage according to their needs.

Digital literacy is a learning process about technology and its use, which is now emerging with many new technologies, so that many technologies are emerging, so we can choose some of the most appropriate media and we can adjust it to our needs. Later a digital citizen must be able to adapt existing technology and it will become a component of the learning environment in schools. There is access to digital communication and there is digital literacy. Digital literacy explains how to communicate and is more towards the use of social media, and the internet in general. Media literacy is actually not digital literacy even though the media contains digital because the media uses our technology but not digital literacy. Literacy is related to reading and understanding a text, as we know that the literacy quality of the Indonesian people is very low [9].

Conclusion

Problems related to teenagers and children must be immediately eradicated to the roots, this is the result of the misuse of digital media. Penus recommends that Citizenship Education teachers use and apply clarification as a basis for improving and growing civic character as an alternative in creating students' character of persistence in digital literacy. Schools are a source of knowledge and have a very urgent role in the progress of today's development. Digital literacy is a bridge so that students are able to use online media wisely,

safely, appropriately, with personality and responsibility. School as a medium has a very big influence on the growth and personality of children. Schools as format institutions have an important role in promoting and honing student innovation. In addition, the role of parents plays a big role in creating this digital literacy culture. Parents are required to be literate in education in order to create goals and progress for the future.

References
[1]   E. Herianto *et al.*, *Pendidikan Kewarganegaraan Digital*. Bandung: Widina, 2022.

[2]   T. Gunawan and S. Muhabbatillah, "Pola Asuh Orang Tua Dalam Penggunaan Media Sosial Facebook Pada Anak Sekolah Dasar," *Sos. Horiz. J. Pendidik. Sos.*, vol. 6, no. 1, pp. 82–95, Jun. 2019, doi: 10.31571/SOSIAL.V6I1.1006.

[3]   S. A.-Z. Hakim, A. A. I. Tristanty, and M. G. R. Pandin, "Digital Literacy Prominence At Digital Era From The Perspective Of Philosophy Of Value (Axiology)," 2021, doi: 10.31219/OSF.IO/329YT.

[4]   F. Adibah and I. W. Sari, "Video Math Fest: Sarana Meningkatkan Literasi Digital Oleh Wali Siswa Jenjang Sekolah Dasar," *Transformatif*, vol. 2, no. 2, 2021, Accessed: Jul. 15, 2022. [Online]. Available: https://ejournal.uinsaid.ac.id/index.php/transformatif/articl e/view/3931.

[5]   J. A. Dewantara, I. F. Suhendar, R. Rosyid, and T. S. Atmaja, "Pancasila as Ideology and Characteristics Civic Education in Indonesia," *Int. J. Educ. Vocat. Stud.*, vol. 1, no. 5, pp. 400–405, Jul. 2019, doi: 10.29103/IJEVS.V1I5.1617.

[6]   A. Salamah, R. A. A. Rashid, and M. Mukhtar, "The Development Of Citizenship Education Learning Models Through The Addie Model To Improve Student Characters At Mulawarman University," *PalArch's J. Archaeol. Egypt*, vol. 17, no. 9, Nov. 2020, Accessed: Jul. 15, 2022. [Online]. Available: https://archives.palarch.nl/index.php/jae/article/view/328 1.

[7]   H. Fitria, "Penguatan Karakter Bangsa Melalui Pengembangan Kurikulum dan Pembelajaran Pendidikan Kewarganegaraan," *J. Pendidik. Kewarganegaraan*, vol. 1, no. 1, 2017, doi: https://doi.org/10.31571/pkn.v1i1.510.

[8]   V. A. Purbasari, R. Samidi, E. N. Sari, R. K. Habibi, and R. Setiawan, *Framework Pendidikan Kewarganegaraan Abad 21*.

UNY Press, 2019.

[9]   F. Eko Hardiawan, Q. Irfan Rifa, and A. Januar Mahardhani, "Menumbuhkan Karakter Gemar Membaca Melalui Komunitas Gubuk Literasi Pada Masa Pandemi," Jan. 2021. Accessed: May 26, 2021. [Online]. Available: http://ejurnal.mercubuana-yogya.ac.id/index.php/Prosiding_KoPeN/article/view/1672.

Effective Public Relations Model Edward L. Bernays Perspektive

Badrut Tamam[1]

Introduction

The flow of information disclosure is the main key that indicates the world's civilization is getting more advanced[1]. The discourse and the rapid development of information media have had a very significant impact on developing countries such as Indonesia. The mobility of information is so powerful that it brings positive and negative changes in the manifestations of life, both personally and institutionally.

With the disclosure of information as seen today personally, people are increasingly aware of the needs and fulfillment of their personal rights in obtaining good and quality education. Nowadays, people seem to be more familiar with the various information they get through various news media channels and their social media. This, of course, will bring new issues of character and morality education and are far different from the problems of past education. Islamic boarding school is an Islamic educational institution that has a special character in the dynamics of national education. He is required to take a role in addressing educational issues from time to time. Especially if you look at the position of Islamic boarding schools among educational institutions in Indonesia, Islamic boarding schools are educational institutions with high the oldest system and contains the meaning of authenticity of Indonesia[2]. Education as organized in the pesantren system has existed and started since the emergence of Islamic society in the archipelago in the early 13th century [3].

The presence and origin of the emergence of the pesantren system to color the face of education in Indonesia has led to various speculations among experts. There are seven theoretical perspectives that have emerged, among others, pesantren is a form of transformation and adaptation of Hindu and Buddhist education before Islam Nusantara was present in Indonesia. The second theory says pesantren originated in India. The third theory suggests that the pesantren model was found in Baghdad. The fourth theory states that pesantren originated from a mix of pre-Muslims in Indonesia and India. The fifth theory states that pesantren originates from Hindu-

[1] Sultan Aji Muhammad Idris State Islamic University Samarinda, badruttamam@uinsi.ac.id

Buddhist and Arabic cultures, the sixth states that pesantren originates from India and Muslims in Indonesia and the last theory considers that pesantren that developed in Indonesia came from India, the Middle East, and older local traditions [4].

To be able to approach how Islamic boarding schools in overcoming problems and problems of public relations management, then this research will make the Miftahul Ulum Islamic Boarding School Sumber Taman Glagahwero, Kalisat Jember, East Java as the research subject. In terms of development both in terms of institutional managerial systems and student achievements, these two Islamic boarding schools are one of the successful Islamic boarding schools in fostering a public relations managerial system both institutionally and outcome and image or reputations in the midst of society.

Discussion

Apart from the most powerful theoretical context in stating the origins of pesantren, currently the oldest educational institution in Indonesia is faced with a more complex societal reality with the progress of the times that accompany it. The historical perspective has placed pesantren in a quite special position, especially with the presence of the Islamic Boarding School Law No. 18 of 2019 and PMA No. 30 concerning the establishment and operation of Islamic boarding schools. The terminology of pesantren in the Pesantren Law is very clear, as stated in article 1 paragraph 1 which states that pesantren is a community-based institution and was established by individuals, foundations, Islamic community organizations and or communities that instill faith and piety to Allah SWT, sow morals. noble and uphold the teachings of Islam rahmatan lil 'alamin which is reflected in a humble, tolerant, balanced, and moderate attitude as well as other noble values of Indonesian culture through education, Islamic da'wah, exemplary, and community empowerment within the framework of the Unitary State of the Republic of Indonesia [5].

The uniqueness of pesantren education in the Pesantren Law does not only come from its origins. However, more than that, this typical Indonesian education has a very characteristic learning system, namely sorogan and bandongan. According to Halim Soebahar, The practice of sorogan learning is carried out because the students thrust their books one by one in front of the kiai. This method became very good because it was intensely guided by the kiai. From this method, there were once born kiai and national figures who led large Islamic boarding schools in Indonesia. In terms of educational practice, boarding schools are not only learning science and theory

but also carried out with practice. The practice of pesantren-style education like this is very distinctive and different. That is the advantage of the pesantren education system. Theory and practice are very well integrated and last 24 hours in a conducive climate.

This important position with uniqueness is currently being used by many Islamic boarding schools to improve in order to become an ideal and quality institution according to the needs of the community. In the process of improving, the pesantren has intensively developed a pattern of communication to the community, both internally and externally. This is solely to support the achievement of the mission and vision of the pesantren as stated in the Pondok Strategic Plan (Renstra).

Managing an institution such as an Islamic boarding school is a very complex task. One of these complexities is the managerial system in the management of human resources that is good and correct, which until now is known to be a common problem faced by Islamic boarding schools.

In line with this, several pesantren educational institutions have formed management to plan, implement, and evaluate various pesantren activities related to internal and external parties through various recitation activities, da'wah activities, communication, coordination, empowerment activities related to the community and hereinafter referred to as with Public Relations.

When examined more deeply, according to Edward L. Bernays, an Austrian-American pioneer in the field of public relations and widely known as the father of public relations, public relations has at least three meanings, namely a conscious effort and systematic empowerment of a system to provide information to the public through management. Public Relations also has the meaning of systemic empowerment in an effort to directly persuade the community to change attitudes and actions, then public relations is a management function carried out by efforts to integrate attitudes and actions [6]. In an effort to generate and provide information to the public, various strategies are needed that need to be developed in public relations work.

Public Relations functions as a mediator in various activities both to provide information, namely as a source of informants and recipients of information (customers). Edwar L Bernays divides public relations duties as follows, disseminating information about organizational ideas and ideas so that the objectives and benefits of various external parties are known, codifying and preparing materials to conceptualize and communicate to leaders and the public or certain parties. Provide an explanation of the information that has been

stored by the leadership in the relevant community. Prepare and develop plans related to public services that are submitted to the leadership[7].

These activities are in order to achieve what is the vision of the institution in general and the purpose of having public relations in particular. The purpose of public relations itself can actually be explained from what is the understanding of public relations, including increasing participation by gaining community support for organizational goals. Coordinate and reduce people to become organizational problem solvers. Building a positive image for the organization towards external parties [8].

In the Qur'an Almaidah verse 67 it is explained that public relations as follows::

يَٰٓأَيُّهَا الرَّسُوْلُ بَلِّغْ مَآ أُنْزِلَ اِلَيْكَ مِنْ رَّبِّكَ ۗوَاِنْ لَّمْ تَفْعَلْ فَمَا بَلَّغْتَ رِسٰلَتَهٗ ۗوَاللّٰهُ يَعْصِمُكَ مِنَ النَّاسِ ۗاِنَّ اللّٰهَ لَا يَهْدِى الْقَوْمَ الْكٰفِرِيْنَ

Translation: O Messenger, convey what has been sent down to you from your Lord. And if you do not do (what was ordered, it means) you do not convey His message. Allah will protect you from human (interference). Verily, Allah does not guide those who disbelieve. (Q.S. Al-Maidah 67)[9]

From the quote above, it is explained about the position of the Prophet Muhammad SAW as a publicist who was ordered by Allah SWT to convey information through good communication as a form of trust. From the excerpt of the surah above, it can be understood that Rasulullah is a reliable communicator and can be an excellent role model for the development of Islamic boarding school public relations management.

The juridical role of Public Relations or Public Relations is contained in Law Number 14 of 2008 concerning the disclosure of public information in article 1 paragraph 1 which reads: Information is information, statements, ideas and signs that contain values, meanings, and messages, both data and facts. as well as explanations that can be seen, heard and read which are presented in various packages and formats in accordance with the development of information and communication technology electronically and non-electronically [10].

Similar legitimacy is also found in PMA No. 30 concerning the establishment and operation of Islamic boarding schools and the Pesantren Law Number 18 of 2019 and states that the data and

information from the management are used for the development of Islamic boarding schools [11]. The development and development of a pesantren should be known by the community as a supporting element in the existence of a pesantren.

In the current era of globalization, Islamic boarding schools need an image and reputation in the midst of developing educational institutions that present modernity. Image is a public perception of a person or institution, while reputation can be interpreted as a good name or trust of a person or society to an institution or anything that is trusted in an effort to get an award. Image and reputation are built by the flow of information received by the public, if the information received by the public about an institution is good, the image and reputation will be good. And vice versa if the information that comes out of an institution is negatively charged, the feedback from the public will be negative [12]. Except for people who understand confirmation and *tabayyun*. Image and reputation are not born out of nowhere. It is constructed and reduced in institutional activities well through the hands of PR.

Institutions or organizations have the possibility to advance and retreat reputationally. It is wrong if educational institutions or organizations do not require efforts to develop themselves and grow without the support of the community. Moreover, pesantren is allegedly growing and developing by the community and for the community.

Pesantren led by a cleric and kiai from the beginning built their da'wah in a very special way, namely trying to build a just and egalitarian society and being able to adapt to social change and help shape it. This situation was able to attract great attention from the community. Managing and establishing Islamic boarding schools for them is a means and struggle in preaching and instilling Islamic values that always instill high morality, uphold human dignity and respect heterogeneity.

Pesantren with characteristics like this in the community are known as cool-faced and friendly boarding schools. Openness to heterogeneity and diversity as well as independence framed by freedom of responsibility is reflected in the daily life of the pesantren system. On the basis of this habituation, which is framed with the concept of Islam, it is hoped that it will bring up an open attitude in the students, tolerant of differences and upholding human values that are in line with Islamic teachings that prioritize the principle of equality among others.

Islamic boarding schools in the current era of industrialization are expected to maintain cultural identity by

promoting open attitudes with the times. The current industrialization needs to be viewed and responded to well by the pesantren community, this is because the values that have developed among the pesantren since its inception have internalized openness and are very compatible with the times.

As part of a formal organization, Islamic boarding schools also want all policies and programs as well as the vision and mission to be achieved well based on the principles of efficiency and effectiveness. For this reason, the pesantren implements supervision on its members who are the driving locomotive of the pesantren system that has been constructed by the founders. Supervision or controlling for pesantren is needed in the process and performance of the organization. This is because with supervision, the work structure of organizational members will be more secure in accordance with the rundown and institutional policies. For this reason, Islamic boarding schools apply various management principles such as planning, regulation, implementation, supervision, and evaluation with great hopes that they can assist management performance in achieving quality results in accordance with organizational orders. For this reason, Islamic boarding schools are required to stimulate, motivate, synergize and fuse with organizational members to create a committed, solid organization with strong team work so that certain organizational behavior can be created from members as desired [13].

Conclusion

Based on the data and analysis it was found that: public relations management Islamic boarding school is a development of the theory of Edward L. Bernays namely the existence of the principles of trust, khidmah and barokah which can be described as follows: first, public relations management planning is carried out through the identification process. planning to the establishment of the cottage because of the trust of the community. Trust is built from small, simple, simple but meaningful things. There is a community need for quality Islamic education. The principles of independence and self-confidence are internalized in every unit of the institution. According to the involvement of actors, it was found that there was brainstorming planning and top down planning. While the substance of planning is classified by the identification of circumstances in the form of strengths and weaknesses and several indicators such as the ability to communicate, ability to organize, ability to get on with people. second, the implementation of public relations management found the formation of a technical team (kiai assembly, public relations, internal & external experts), preparation and

implementation of public relations was shown by building communication and coordination networks, preparing kiai protocols, coordinating with resource persons, internal communication, preparing equipment & work delegation . The implementation of the substance of public relations management according to the Communication Ability indicator is shown by managing interpersonal services, managing the institution's website & social media, praying and seeking blessings. Organizing Ability is shown by managing the strategy to build opinions, division of public relations tasks, optimization of the budget. Ability To Get On With People is demonstrated by building a coordination system with leaders and units in the institution, building relationships with online/print media, prioritizing the principle of khidmah. Third, monitoring and evaluation are carried out regularly and consistently through mentoring, monitoring through integrated weekly coordination evaluation forums and kiai assembly meetings.

References

[1]　D. Setiawan, "Dampak Perkembangan Teknologi Informasi dan Komunikasi Terhadap Budaya," *Jurnal Simbolika : Research and Learning in Communication Study*, vol. 4, hlm. 62, Apr 2018.

[2]　S. Mukaromah, "Pemikiran Nurcholis Majid dan Pengembangan Pendidikan Islam: Analisis Spirit Keislaman dan Keindonesiaan," *Panangkaran: Jurnal Penelitian Agama dan Masyarakat*, vol. 3, 2019.

[3]　M. Sulthon, M. Khusnuridlo, dan Z. Tasnim, *Manajemen pondok pesantren dalam perspektif global*. Yogyakarta: LaksBang PRESSindo, 2006.

[4]　M. Hasan, "Perkembangan Pendidikan Pesantren di Indonesia," *TADRIS: Jurnal Pendidikan Islam*, vol. 10, no. 1, Art. no. 1, Nov 2015.

[5]　N. F. Azzahra, "Dampak Undang-Undang Pesantren Terhadap Sistem Pendidikan Indonesia – Sebuah Proyeksi," hlm. 32.

[6]　E. L. Bernays, *Public Relations*. University of Oklahoma Press, 2013.

[7]　R. D. D. Smith, *Strategic Planning for Public Relations*.

[8]　P. F Drucker dan J. A. Maciarriello, *Management*, Revised Edition. California: Harper Collins, 1999.

[9]　Departemen Agama RI, *Al-Qur'an dan Terjemahnya*. Semarang Indonesia: Karya Toha Putra, 1999.

[10]　A. Faizin dan A. Mansur, "Penerapan Undang-Undang Nomor 14 Tahun 2008 Tentang Keterbukaan Informasi Publik Di Perguruan Tinggi Keagamaan Islam Negeri (Studi Kasus UIN

Syarif Hidayatullah Jakarta)," *SALAM: Jurnal Sosial dan Budaya Syar-i*, vol. 5, no. 2, Art. no. 2, Agu 2018.

[11]   Panut Panut, Giyoto Giyoto Yusuf Rohmadi, "Implementasi Undang-Undang Nomor 18 Tahun 2019 Tentang Pesantren Terhadap Pengelolaan Pondok Pesantren | Panut | Jurnal Ilmiah Ekonomi Islam." http://jurnal.stie-aas.ac.id/index.php/jei/article/view/2671 (diakses 18 Juli 2021).

[12]   N. I. Afkarina, "Strategi Komunikasi Humas dalam Membentuk Public Opinion Lembaga Pendidikan," *Idaarah: Jurnal Manajemen Pendidikan*, vol. 2, no. 1, Art. no. 1, Jun 2018.

[13]   P. Hersey, K. H. Blanchard, dan D. E. Johnson, *Management of Organizational Behavior: Leading Human Resources*, 11 ed. London ; Britania Raya: Pearson, 2013.

Virtual Museum in Communication Museum Perspective
(National Sports Museum Study Case)

Ciwuk Musiana Yudhawasthi[1]

Introduction

Museums are tourist destinations that have been affected during the pandemic. However, this situation has changed the way museums view the digital world. Based on a survey conducted by ICOM [1], many museum institutions are aware of the importance of digitalization, despite uncertain economic conditions and limited human resources who understand technology in museums. This also happened in Indonesia. The Jelajah Community Survey found an increase in the use of internet-based technology, especially social media in 2020-2021 [2].

Instagram is the most widely used social media by museums in Indonesia (65%). The most widely used format of activities is seminars using the conference meeting application. Where 20% of the museum then uploads the recording of the seminar to the museum's official Youtube. In addition to seminars, internet-based activities carried out by the museum include discussions, workshops, book reviews, talk shows, exhibitions, competitions, training, and film screenings. In addition, data obtained from 35% of museums updated their website in 2020-2021.

The public program that museums have started to offer during the pandemic is virtual tours. A virtual tour is actually an educational tool that provides pictures and information to enhance the learning experience at the museum. The virtual museum is an extension of the traditional museum service method based on network technology and contains multi-dimensional and hypermedia works. This activity has changed the traditional perspective of museum exhibitions, as virtual visitors have complete control over the activities [3], [4].

The virtual museum is the result of the conjunction of the traditional concept of a museum with the multimedia computer and communication technology of the Internet [5]. The virtual museum is

[1]Faculty of Communication Studies, Bhayangkara University Jakarta,
  ciwuk.musiana.yudhawasti@dsn.ubharajaya.ac.id

dematerializing the object for the benefit of providing much more information on the object: the image in all its manifestations (2D, 3D, details, Physico-chemical analyses, facsimiles, etc.) and the knowledge of the image (intrinsic information on the object, extrinsic information on the context of the object, historiographical information, reference information, etc.). It dematerializes the museum itself by making possible a "remote visit" [6].
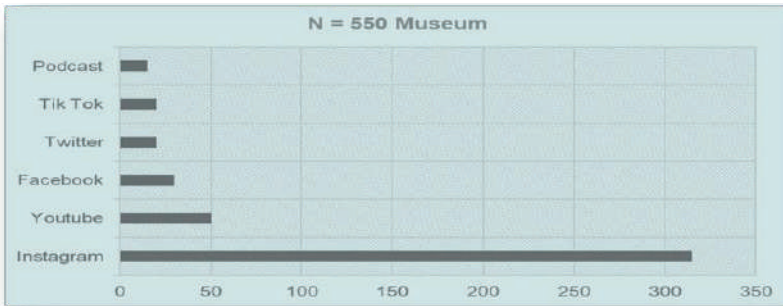
Table 1. Use of Social Media by Museums in Indonesia 2020-2021
Source: Report of Indonesia Museum Awards Survey 2021 by Komunitas Jelajah

Virtual tours are a branch of Virtual Reality (VR) technology, but virtual tours use a real environment. Through panoramic image technology, visitors who cannot attend in person will get an immersive experience of museum collections using smartphones or computers. Virtual museum tours are carried out in various forms:

A. A website-based online virtual museum with AR technology
B. Museum Profile Video, which is recording the museum and the collections, then uploaded through various internet-based media
C. Live Program, which is to report directly on the museum and its activities using social media and/or conference meeting applications. The recordings are then uploaded to various internet-based media.

One of the museums that is actively running a virtual museum during the pandemic is the National Sports Museum (MORA) located at Taman Mini Indonesia Indah (TMII). The museum which was founded on April 20, 1989 is under the Ministry of Youth and Sports. MORA has to bring in visits of at least 5000 people per year. To

overcome this, MORA created an online virtual museum, museum profile videos, and also a Live Program. As a result, in 2021, as many as 18,102 people visited online. In addition to making virtual museum tours, MORA also makes routine programs through conference meetings called "Bedah Koleksi" (the program to introduce the museum collections which are not exhibited due to limited exhibition space). In February 2022, the virtual tour of the museum was renamed MORA Virtual Experience.

The MORA virtual museum tour was built to intensify visitor interaction with exhibitions, media, and museum spaces. To make it happen, MORA must construct exhibition architecture, media, and space into a virtual museum. This means that the museum manager plays an important role in the process of improving cognition, perception, and intellectual recognition of visitors in a pleasant experience. Currently, MORA is constrained by space. With the rebuilding of Taman Mini Indonesia Indah (TMII), MORA is one of the museums that must move from TMII. This situation makes MORA no longer have a real museum location and building. The presence of the MORA virtual museum in http://virtualmuseum.kemenpora.go.id/ This situation indirectly has shown the role of the virtual museum not only to be an extension of the museum in a period of time but can show an effort to maintain the existence of the museum. Although physically the MORA's building no longer exists, MORA's digital track record at TMII can provide evidence of the presence of museums and national sports and cultural artifacts that have been collected before.

Based on the above explanation, the researcher wants to know how museum managers construct knowledge, skills, and attitudes through exhibitions, media, and virtual museum spaces. For this reason, the researcher constructs an instrument to evaluate the virtual tour program MORA. The instrument is carried out by developing a heuristic evaluation based on Museum Communication. The heuristic evaluation developed consists of four dimensions of Museum Communication, namely: Spiritual, Educational, Recreational, and Ukhuwah, or the SERU dimension [7]. This research was conducted with a qualitative approach. The data collection was carried out through FGD with 5 resource persons, namely the Head of the Museum, Educator, Curator, Conservator, and Register. In this museum virtual tour program, the educator acts as a host, the register carries out streaming technical duties, the conservator carries out the functions and duties of public relations and the curator acts as the program supervisor. Data collection was also carried out by conducting a content analysis of 10 of 29 videos of the museum's virtual tour program that had been uploaded to MORA's Youtube

during 2020-2021. Ten videos were analyzed and randomly determined with the aim of ensuring consistency in constructing messages based on activity achievements.

Discussion

At first, virtual information was used to complete the presentation of the objects. It replaced the obsolete and inadequate labels identifying the objects and the outdated explanatory panels. It supplied information that could be more detailed if desired or modified, on a support that was reusable and replaceable without losing the information (projections, flat screens). Then the virtual information goes beyond the real object in order to respect all the requirements for correct conservation (Cabinet des Dessins of the Louvre Museum) or for a presentation that does not saturate the public (from the accumulation of objects to the presentation of exceptional pieces). In extreme cases, where the object can no longer be visited, it is replaced by a facsimile, as it was the case for the prehistoric caves (Lascaux II, Muséede la Grotte Chauvet, Musée de Tarascon sur Ariège, etc.). The virtual museum, consequently, can be visited at a distance, Internet technology offering the possibility of seeing a part of the collections presented to the public and different kinds of services; in this way, it becomes a true commercial tool for the promotion and sale of the site-related products. On a computer level, the virtual museum is a portal that offers a particularly wide variety of functions and services [8], [9].

Virtual museums are often referred to as online museums, electronic museums, hyper museums, digital museums, cyber museums, or Web museums [10]. According to Andrews and Schweibenz, the presence of a virtual museum is to create a museum without walls and to build a digital extension of the museum on the Internet. Specifically, Andrews and Schweibenz declared virtual museums logically related collections of digital objects composed in a variety of media which, because of its capacity to provide connectedness and various points of access, lends itself to transcending traditional methods of communicating and interacting with visitors, it has no real place or space, its objects and the related information can be disseminated all over the world [11].

Does the virtual museum program provide a positive experience for visitors? Based on the research of Li J about the evaluation of the application of virtual museums in Forbidden City, the virtual exhibition fostered a good sense of reality overthought the interactivity of the exhibition is merely general and needs to be improved [12]. From research by Domínguez-Quintero, A., González-

Rodríguez, R., & Luis Roldán, J. virtual museum has a direct and positive influence on the two dimensions of authenticity (objective and existential) on experience quality. The results confirm the importance of concepts such as authenticity, quality of experience, and emotions during the visit in cultural tourism consumption. Cultural tourism attractions in a destination should be offered to provide visitors with an authentic, positive, and high-quality experience which in turn should favor the satisfaction of the tourist. Regarding the notion of authenticity, the findings of this study reveal that cultural offerings were perceived not only as tangible tourism attractions but also as existential experiences derived from the different feelings attached to the tourism products (sense of enjoyment and escape). Results clearly show that visitors interpret authenticity in its double dimension (object-based and existential authenticity) and that the concept of authenticity may have different meanings depending on the destination characteristics [13]. The consideration of authenticity constitutes a key element in the present study since not many studies in the generic and cultural-heritage tourism literature have paid attention to the influence of perceived authenticity on either satisfaction or behavioral intentions [14], [15], [16]. The findings are in line with Kolar and Zabkar [17] and Ramkissoon and Uysal [18] who also noted that perceived authenticity in its double perspective influences the successful consumption of cultural attractions.

The studies above, evaluate from the visitor's point of view. While the public program as an element in the museum's communication taxonomy will involve three main factors, namely the museum as an institution, the museum manager as an actor who plays a role in communicating, and the visitor museum as an active message recipient who can provide feedback on the message received [19]. Therefore, it is necessary to evaluate the activities that have been carried out. The theoretical contribution of this research aims at enriching the understanding of the complexity of a multi-dimensional construct and to provide relevant information about communication strategies to transfer the museum experience on a virtual tour museum.

Based on four dimensions of museum communication, MORA tried to construct all values through the roles of Educator, Curator, Public Relations, and IT team. The virtual tour program does not only use the museum's profile recording system but also interacts directly with visitors through conference meeting platforms and Live social media features such as Instagram. To expand the reach of visitors, all online programs are uploaded with recordings through the museum's

YouTube account. To inform the virtual tour program at the museum, there are two systems, namely, offering the program to stakeholders and receiving requests from stakeholders. The offer will be made through the museum's social media as well as by sending letters to all schools in the Jakarta, Bogor, Depok, Tangerang, and Bekasi areas.

MORA has 1500 collections consisting of sports equipment (sports equipment, uniforms/sports clothes, shoes), proof of achievement (medals, trophies, certificates), traditional game/traditional sports equipment, and mascots as well as important sporting moment artifacts, such as the PON Torch. The collection arranged in a three-story building at Taman Mini Indonesia Indah is only about 40%, the rest stored in the museum storage. In order to implement the virtual tour program in an effective, focused, and efficient manner, all relevant teams, namely Educators, Conservators, led by the Head of the Museum hold regular meetings to determine topics, collections, and tour locations. This team is also assisted by the Register, Conservators, and even temporary staff. Due to the fact that the museum does not have a special PR staff, the function and duties of public relations are concurrent with the Conservator, in the form of managing social media and coordinating with stakeholders, especially visitors.

At the beginning of this program, the topic of the virtual tour material was decided by the museum team, but as the demand grew, the topic was more tailored to the requests of visitors who were generally groups from schools. The most important step in this process is to determine the expected outcomes of the activities carried out. The important thing that needs to be formulated is what knowledge you want to convey, what attitude you want to build, and what skills you want to train. To construct this, the team had to curate the collection, then determine the story to be presented, design a scenario for exploring the museum, and make a dialogue plan starting from the opening, content, and closing. Including exploring feedback from virtual participants in the form of games, quizzes and questionnaires at the end of the event. The next step is to determine the right host in order to deliver the material and interact well. Hosts are expected to be able to communicate informative and persuasive, as well as transfer knowledge and convey interpretations of positive values from museum collections. Such as gratitude, example, discipline, hard work, sportsmanship, cohesiveness, cooperation, fighting spirit, and a nationalist spirit. Providing hands-on experience through virtual reality is recognized by the MORA team as very difficult to do, especially in skills-training activities such as traditional games, football, basketball, badminton, and archery, all of which can

be facilitated in the public museum space. To overcome this, the museum will show a demo video. The sport that is easier to do together virtually is gymnastics without tools.

Taking into account the four dimensions, SERU, the museum has tried to actively construct messages through verbal and nonverbal communication. Although it is acknowledged that nonverbal communication is constrained because basically the communication carried out is mediated by computer-based tools (Computer-Mediated Communication or CMC). CMC is simply defined as communication that occurs between people using computer media or through computers, where in CMC there will be a minimum of nonverbal (signs) and frequency of decision-making [20], [21]. Culnan and Markus suggest that the shrinking of the nonverbal cue system occurs due to a lack of normative behavior, politeness, coordination, empathy, and friendliness, or a lack of ability to reduce uncertainty. This is what is called a cue filtered-out condition, namely a communication situation that reduces a person's opportunity to catch communication signs, including nonverbal signals involved in communicating with him [22].

In the case experienced by MORA, the host played an important role in eliminating this communication barrier by providing treatment in the form of games and quizzes and seeking feedback through a questionnaire at the end of the activity. This situation builds a conducive climate in virtual space, as stated in Al-Badayneh's research [23], social interaction between participants and their mental maps of the virtual community produce place in virtual behavior settings. Social interaction can be defined as the process in which people act toward or respond to others. People can interact with the help of the symbolic system such as language and gestures. According to Herbert Blummer [24] people interact with each other and toward things according to the meaning they give them and meaning arises out of social interaction through an internal process of interpretation. On other hand, George Homans-Exchange Theory, argues that self-interest is the universal motive behind the way people behave toward one another. Exchange Relationships occur when a person acts in a certain way toward another to receive a reward or return [25]. People are looking for meaning and exchange in a physical society or in a virtual society. Two of the biggest differences between physical and virtual behavior settings are how the concepts of time and place are dealt with. Time and place boundaries are fundamental attributes of physical behavior settings [26].

SERU Dimension Evaluation

The spiritual dimension is constructed through verbal and nonverbal communication about the meaning of life, role models, being grateful, and a sense of nationalism by displaying a collection of achievements and touching, proud moments in a match. Implicitly, the educational dimension is conveyed through exemplary examples that inspire and encourage positive character development without leaving the recreational element through the experience of interacting in a computer-mediated virtual exploration. This means that the recreation dimension is achieved through the MORA team's hard work utilizing virtual learning spaces in virtual recreation facilities. Where participants are encouraged to appreciate as well as reminisce on the achievements of Indonesian national athletes on the international and national levels. In the Ukhuwah dimension, although there are limitations to physical interaction, Bernard, stated that: "The distribution of people in dispersed social systems is not only spatial but mental. Some people are in a planetary community; some are in a national community; still, others are in a community bounded by their limited interests. The bodies of people might be in one spatial area, but not their social worlds. The concept of locale has little meant in this context. The concept of communality was once proposed to refer to these locale-independent relationships. Now the implications for the community of the independence from the locale as shown by these new kinds of relationships are becoming overwhelming." [27]. The following is a message construction map based on dimensional evaluation from the perspective of Museum Communication.

VIRTUAL TOUR MUSEUM MESSAGE CONSTRUCTION MAP - MORA 2021

DIMENSION	MESSAGE	CODE OF MESSAGE	KEY INTERACTION	NATURE OF MESSAGE
SPIRITUAL	- Meaning of life - Role Model - Be grateful - Nasionalist	- Language - Gesture - Collection	- Educator - Curator - IT Team	- Informative - Persuasive
EDUCATIVE	- Learning tools - Character builder - Inspiring	- Language - Exhibition - Gesture - Collection - Facilities	- Educator - Curator - IT Team	- Informative
RECREATIVE	- Tourism facilities - Entertainment - Nostalgia	- Language - Exhibition - Gesture - Collection - Facilities - Service	- Educator - PR - Curator - IT Team	- Informative - Persuasive
UKHUWAH	- Silaturahmi virtually - Compact - Cooperation	- Language - Service - Gesture - Facilities	- Educator - PR	- Informative

Table 2. Construction Map of the 2021 MORA Message
Source processed by Yudhawasthi, 2022

Conclusion

1. The virtual museum is an attractive alternative to tourism; it is easily accessible and eliminates the limitations of space and time.
2. Virtual museums open up opportunities to increase the attractiveness of museums through technological innovation, program creativity, and graphic presentations that are favored by today's young generation.
3. Museum virtual tours allow visitors to do self-guided, room-by-room tours of exhibitions and certain areas within the museum from their desktops or mobile devices. Therefore, museum managers must be able to maximize message construction in virtual spaces by taking into account the four dimensions of museum communication, namely Spiritual, Educational, Recreational, and Ukhuwah or SERU
4. The technical obstacle of a virtual museum tour is that there is no technology that is able to facilitate non-verbal things, such as taste and smell, as well as communication situations that reduce a person's chances of capturing communication signs
5. Virtual museums must be supported with adequate telecommunications infrastructure, networks, and by all the stakeholders.
6. Virtual Museum is an option to manage the museum in the digital era as the program can be offered to get some budget for the museum's sustainability.

Reference

[1] International Council of Museums, Survey: Museums, museum professionals and COVID-19, 2020, *Icom.com*, https://icom.museum/en/covid-19/surveys-and-data/survey-museums-and-museumprofessionals   Accessed Juli, 2020.

[2] Komunitas Jelajah. *Laporan Indonesia Museum Awards 2020. Unpublished*, 2020.

[3] M. Achyarsyah, R. A. Rubini, H. Hendrayati, N. Laelia. Strategi Peningkatan Kunjungan Museum Di Era *Covid- 19* Melalui *Virtual Museum* Nasional Indonesia. *Journal IMAGE* Volume 9, Number 1, April 2020, p. 20-33, 2020. Accessed August 1, 2022.

[4]   L. Marpelina, dan R. F. Asrofin, The Existence of Virtual Museums During The Covid 19 Pandemic, *Jurnal Penelitian Sejarah dan Budaya* Vol. 8 No, 1 Mei 2022 p. 42-66, 2022. DOI: 10.36424/jpsb.v8i1.282. Accessed August 1, 2022.

[5]   J. Andrews, and W. Schweibenz, (1998). "New Media for Old Masters: The Kress Study Collection Virtual Museum Project", in: Art Documentation, *Spring Issue 1998*, Vol 17 No 1, 19-27. 1998. Accessed August 1, 2022.

[6]   F. Djindjian, "The Virtual Museum: An Introduction". *Archeologia e Calcolatori Supplemento* 1, 2007, 9-14. Accessed August 1, 2022.

[7]   C. M. Yudhawasthi, *Komunikasi Museum Universitas: Studi Kasus Mengenai Komunikasi Museum FKIK Unika Atma Jaya dan Museum Pendidikan Nasional UPI. Disertasi*. Bandung: Universitas Pandjadjaran, 2020.

[8]   F. Djindjian, "The Virtual Museum: An Introduction". *Archeologia e Calcolatori Supplemento* 1, 2007, 9-14. Accessed August 1, 2022.

[9]   T. Navarrete, A history of digitization: Dutch Museums, *Ph.D., thesis*. University of Amsterdam. 2014. Retrieved from http://hdl.handle.net/11245/1.433221 Accessed Oct 30, 2021

[10]   T. Navarrete, Digital Heritage Tourism: Innovations in Museums, *World Leisure Journal 2019*, Vol. 61, No. 3, 200–214, 2019.   https://doi.org/10.1080/16078055.2019.1639920 Accessed October 30, 2021

[11]   J. Andrews, and Werner Schweibenz. "New Media for Old Masters: The Kress Study Collection Virtual Museum Project", in: Art Documentation, *Spring Issue 1998*, Vol 17 No 1, 19-27, 1998. Accessed August 1, 2022.

[12]   J. Li , J. W. Nie, J. Ye, Evaluation of virtual tour in an online museum: Exhibition of Architecture of the Forbidden City, *PLoS ONE 17*(1): e0261607, 2022. https://doi.org/10.1371/journal. pone.0261607 Accessed October 10, 2022.

[13]   A. D. Quintero, R. G. Rodríguez, & J. L. Roldán, The Role Of Authenticity, Experience Quality, Emotions, And Satisfaction In A Cultural Heritage Destination. *Journal of Heritage Tourism 14* (1), p. 1-15, 2019. DOI:10.1080/1743873X.2018.1554666. Accessed Oct 30, 2021.

[14]   J. Li, J. W. Nie, J. Ye, Evaluation of virtual tour in an online museum: Exhibition of Architecture of the Forbidden City, *PLoS ONE 17*(1): e0261607, 2022. https://doi.org/10.1371/journal. pone.0261607 Accessed October 10, 2022.

[15]   H. Ramkissoon, & M. S. Uysal, (2011). The Effects of Perceived Authenticity, Information Search Behaviour, Motivation and Destination Imagery on Cultural Behavioural Intentions of Tourists. *Current Issues in Tourism, 14*(6), 537–562. 2011.

[16]   G. Sedmak, & T. Mihalič, Authenticity in Mature Seaside Resorts. *Annals of Tourism Research, 35*(4), 1007–1031. 2008.

[17]   T. Kolar, & V. Zabkar, A Consumer-Based Model Of Authenticity: An Oxymoron or The Foundation of Cultural Heritage Marketing? *Tourism Management, 31*, 652–664, 2010. Accessed October 30, 2021.

[18]   H. Ramkissoon, & M. S. Uysal, The Effects of Perceived Authenticity, Information Search Behaviour, Motivation and Destination Imagery on Cultural Behavioural Intentions of Tourists. *Current Issues in Tourism, 14*(6), 537–562. 2011.

[19]   C. M. Yudhawasthi, N. A. Damayani, P. M. Yusup, & A. Suryana, Museum Communication: A Conceptual Study, *Opción, 35*, 28, 2019. Recuperado a partir de https://produccioncientificaluz.org/index.php/opcion/article/view/29105 Accessed October, 12 2020

[20]   S. C. Herring, Computer-Mediated Discourse Analysis: An Approach to Researching Online Behavior. Preprint. To appear, 2016. in S. A. Barab, R. Kling, & J. H. Gray, (Eds.). Designing for Virtual Communities in the Service of Learning (pp. 338-376). 2004. New York: Cambridge University Press. DOI: 10.1017/CBO9780511805080.016 Accessed, Juli 23, 2019

[21]   C. R. Berger, E. M. Roloff, dan D. R. Ewoldsen, *Handbook Ilmu Komunikasi*. Bandung. Penerbit Nusa Media. 2014

[22]   D. Al-Badayneh, Human Behaviour When And Where Virtual Society Meets Physical Society?, *European Journal of Science and Theology*, February 2013, Vol.9, No.1, 105-110. 2013

[23]   D. Al-Badayneh, Human Behaviour When And Where Virtual Society Meets Physical Society?, *European Journal of Science and Theology*, February 2013, Vol.9, No.1, 105-110.

[24]   H. Blumer, *Symbolic Interactionism; Perspective and Method, Prentice-Hall*, Englewood Cliffs, 1969.

[25]   G. Ritzer, *Sociological Theory*, McGraw-Hill Companies, New York, 268. 2008,

[26]   L. Garton and B. Wellman, *Communication Yearbook*, 18, 434-453. 1996.

[27]   J. Bernard, *The Sociology of Community*, Scott Foresmsan, Glenview, 183, 1973

Online Bipa Learning For Sepama Teachers (Musa Asiah Integrated School) Cambodia

Dewi Kusumaningsih[1], Agus Efendi[2] , Mohamad Zain Musa[3] , dan Muhlis Fajar Wicaksono[4]

Introduction

YASMA – SEPAMA is a private primary and secondary school that combines cambodian national education and Islamic education. Since 2012, all Islamic teachers have graduated from education in Malaysia, so these teachers are able to teach Islam with the introduction of Malay. Malay in the school became the second language used in the introduction to his education. While the spoken language commonly used is a mixture of Khmer, Cam, and Malay [1].

Malay is very important for Cambodian children in Sepama. Because the Malay language is cognate of Indonesian, hence the many similarities between these two languages. Therefore, learning Malay is one of the curricula at Sepama School. Sepama has also received teacher assistance several times in Indonesian to teach its teachers and students. The lecturers of this Indonesian include the University of Muhammadiyah Surakarta, the University of Muhammadiyah Malang, and Ahmad Dahlan University Yogyakarta. This is one of the proofs that Indonesia is able to spread to various countries through official learning and various media.

The latest development shows that BI has been studied in 45 countries in the world. Even Vietnam makes BI the 2nd official foreign language parallel to English. BIPA in Asean is in great demand. While in Australia, BI is the number 4 most popular foreign language, being a compulsory subject and taught in approximately 500 schools [2], [3]. Since the establishment of SEPAMA in 2012, Malay has been very important for children in Cambodia. Efforts to find native *speakers* to teach Malay have been made to teach SEPAMA children. However, it

[1] University of Veteran Bangun Nusantara, dewikusumaningsih71@gmail.com

[2] University of Veteran Bangun Nusantara, kambang.leng2@yahoo.co.id

[3] Sekolah Bersepadu Musa Asiah (SEPAMA), mzenbm@gmail.com

[4] Sekolah Bersepadu Musa Asiah (SEPAMA), muchlisfajarwicaksana@gmail.com

has not yet received a native speaker teacher to SEPAMA constrained by facilities and costs. One other reason that makes teaching enthusiasts in Cambodia hard to come by is because if they hear "teaching in Kamboja", the image of Khmer Roujge has come and only fear is on their minds [1]

COVID-19, which is a dangerous wabah, has also brought a lot of wisdom to the Education circles [4]. If before this we did not know LMS (*Learning Management System*), then since the Covid-19 pandemic we have begun to be familiar with LMS. LMS (*Learning Management System*) has become a widely used form plate, such as Zoom meetings [5]. Zoom meeting is an application that provides a virtual face-to-face feature between teachers and students. The conveniences obtained from using the Zoom meeting application are that it can be used at any time and is very accessible. [6]–[8]

The COVID-19 pandemic has changed learning strategies [9]–[11] Distance learning has begun to be implemented in various schools as a solution to learning in the era of the COVID-19 pandemic [12], [13] The existence of an LMS (*Learning Management System*) facilitates distance learning. Teachers can easily interact through synchronous (virtual face-to-face) or asynchronous (without virtual face-to-face) techniques.

The impact of distance learning is also felt by SEPAMA Cambodia teachers. The existence of distance learning allows SEPAMA teachers to learn Indonesian with direct speakers from Indonesia. BIPA's learning strategy for SEPAMA also uses distance learning by using a lot of multimedia. The ease of distance learning is also supported by the ease of accessing learning materials both from within the country and abroad. BIPA learning materials provided by the Language Agency in Indonesia are very accessible to SEPAMA teachers.

The purpose of this study was to describe various findings in the practice of online BIPA learning for teachers in SEPAMA of the Kingdom of Cambodia. The findings were taken from three points of view of the problem, namely the use of multimedia, the basis of teacher competence in SEPAMA, *cross-cultural* understanding or understanding of cultural interactions between the Cambodian royal community and the Indonesian people. This type of research is descriptive qualitative with an analysis content model. The source of the data was taken from interviews with informants, namely teachers at SEPAMA schools. Retrieval of data sources through the whats Aap application media and the zoom application. Data in the form of all information obtained from interviews with informants. A content analysis is carried out to describe various findings coupled with

various descriptions of findings from various information provided both by informants both contextually and textually, as well as other sources. The content of the analysis is also corroborated by looking for supporters of information related to the problem under study.

Discussion

BIPA stands for Indonesian for Foreign Speakers. BIPA (Indonesian for foreign speakers) can be interpreted as a language learning program specifically designed for foreign learners or students who want to learn Indonesian [14], [15]. BIPA is a Indonesian learning program whose subject is a foreign learner. So BIPA can be interpreted as a Indonesian learning program specifically intended for foreign nationals whose first language is not Indonesian or regional language [2], [3], [8], [14]–[16]

Teaching Indonesian for Foreign Speakers (BIPA) is one of the efforts in order to support the government to improve the function of Indonesian to become an international language [3]. The improvement of the Indonesian function will certainly have an impact on increasing Indonesia's position in the international arena, namely strengthening the nation's identity and increasing the nation's competitiveness. One of BIPA's objectives is to introduce Indonesian language and culture to the international world in order to improve Indonesia's positive image abroad and improve the quality of BIPA teaching [15].

Online Learning

Online learning is learning that uses the internet network with accessibility, connectivity, flexibility, and the ability to bring out various types of learning interactions. Online learning connects learners with their learning resources (databases, experts/instructors, libraries) that are physically separated or even far apart but can communicate, interact or collaborate with each other (directly/synchronously and indirectly/ asynchronously).

Online learning is a form of distance learning that utilizes telecommunications and information technology, for example the internet, CD-ROOM. The implementation of online learning is carried out between teachers and students together, at the same time, using various applications such as whatsapp, telegram, zoom meeting, google meet, google classroom, quiepper school, teacher's room and other applications that can support the continuity of online learning.

Multimedia

Recently, multimedia is widely used as a learning medium, as is social media. The availability of learning platforms makes schools use it, including SEPAMA Cambodia. Multimedia is a combination of several components, namely text, images, audio, video, and animation. The use of this multimedia can be regulated with software in the application. This multimedia can encourage interaction between teachers and students because of its interesting nature.

Multimedia allows teachers to make media as interesting as possible, especially during online learning. This is done so that students feel interested in learning that does not get bored quickly. The combination of these components really supports online learning with the features that have been provided.

A.　The Effect of Multimedia on Learning

During the Covid-19 pandemic, multimedia was very helpful in the BIPA learning process which was followed by SEPAMA teachers in the kampuchea kingdom. The use of whatsapp social media and zoom application, supports BIPA learning in the network is well carried out. BIPA learning using multimedia can be accessed anywhere and anytime. Face-to-face with native speakers from Indonesia, this learning can be carried out ideally. With the help of social media, students can practice online and get some meaningful context and communication. As foreign speakers who study Indonesian, students get more learning by understanding the *cross culture* where the language is spoken.

BIPA learning through multimedia during the Covid-19 pandemic has several obstacles. The learning resources provided cannot be understood quickly, it needs guidance from lecturers slowly. Students sometimes experience network problems in their area, so that the delivery of material is cut and accepted incompletely. Thereis no irregularity in the translation of Indonesian into his native language that the speaker conveys to students.

B.　Student Competencies from SEPAMA Kingdom of Cambodia

The competence of students from SEPAMA Kerajaan Cambodia is seen from 3 points of view, namely 1) the origin of the student's last education, 2) understanding of Malaysian Malay, and 3) learning resources obtained. The educational backgrounds of BIPA students from SEPAMA are varied. They are teachers who teach at SEPAMA who have a final undergraduate education of S1 but with various majors, including mathematics,

information technology, engineering, management economics, Arabic, and economics. Most of them graduated from colleges outside Cambodia, namely Malaysia, Arabia, and Sudan. They use 4 languages in social interaction in Cambodia, namely cam language, Kmer language, English, and a little Malaysian Malay.

If you look at the educational background of those who have graduated from undergraduate studies, BIPA learning will not experience difficulties. This is because they are used to reading lecture textbooks from Cam, Malay, and English. As stated by one BIPA student, the habit of studying with textbooks during lectures helps them learn BIPA material books printed by the Indonesian Agency, even though the introduction to the book uses Indonesian and English.

Most of the students already understand Malaysian Malay and only a small part of them do not understand. This makes it easier for teachers to deliver the material they want to teach because there are many similarities between Malaysian Malay and Indonesian. Even so, students also experience difficulties in terms of pronunciation of words similar to Malaysian Malay, this can happen due to the habitual factor of students who are accustomed to using Malay pronunciation which makes it difficult for students to use Indonesian pronunciation properly and correctly. They have a hard time switching sounds, because the sounds of the two languages are similar. Example:

Table 1. Similarities of Malay sounds to Indonesia

Indonesian Vocabulary	English	Limbs
Sedikit	A little	Sedikit
That	That	That
Money	wang	Money

In addition, there are BIPA learners who are accustomed to using the Inggris language in everyday speech, so there are difficulties in pronunciation of Indonesian. For students who do not understand or are new to Indonesian, they will have difficulty in understanding the material presented by the teacher. However, these obstacles were reduced after being assisted by translators from Indonesian to Cambodian. The technique of translating Indonesian into Cambodian has made it easier for them to understand the material and gain a deeper context of meaning.

The learning resources obtained by students also affect the understanding of the material. The more learning resources that students get and understand, the easier it will be to understand the material. But in the student's home area, understanding of multimedia is very limited. Their can only use whatsapp and zoom. Therefore, learning must be maximized by using a language translator who accompanies them, so that even though the multimedia used is limited, students can still understand the material presented by the teacher.

C. Cross Culture Understanding
Cross Culture Understanding (CCU) in BIPA learning greatly influences the success of learning [17]–[19] It requires the cultural understanding of learners to be combined with the cultural context of the terms in Indonesian. Integration with Indonesian culture slowly but deeply for BIPA learners in SEPAMA is carried out considering that the level of BIPA achievement for SEPAMA teachers is still at the A2 level. Integrating BIPA learning with Indonesian culture can improve Indonesian language competence for teachers at SEPAMA. The BIPA learners in SEPAMA are still in the same family of Asean countries as Indonesia, so CCU is still rather easy. In addition, most BIPA learners are familiar with Malaysian Malay. Examples of numerical vocabulary materials. interesting and easy to teach because the vocabulary of numbers in Malay and Cam is the same in writing and similar in pronunciation to Indonesian. Integers 0 – 10 in 3 languages are pronounced as follows:

Table 2. Phonetic Similarity of Numbers in 3 Languages (Indonesian, Malaysian Malay, Cam)

Balance sheet	Phonetic Indonesian		Phonetic language Malayu Malaysia		Phonetic language of Cambodia	
0	Zero	[nθl]	Blank	[kθs$\theta\eta$]	Sound	[sθn]
1	One	[one]	One	[one]	Especially	[especially]
2	Two	[two]	Two	[two]	Two	[two]
3	Three	[three]	Three	[three]	Klaw	[kla∂]
4	Four	[∂mpat]	Four	[∂mpat]	Paa	[but:]
5	File	[file]	File	[file]	Lemew	[l∂m$\partial\omega$]
6	More	[∂male]	More	[∂male]	South	[male]
7	Seven	[seven]	Seven	[seven]	Tejuh	[tejuh

Balance sheet	Phonetic Indonesian		Phonetic language Malayu Malaysia		Phonetic language of Cambodia	
8	Eight	[d∂lapan]	Eight	[eight]	Tepan	[t∂pan]
9	Nine	[s∂mbilan	Nine	[s∂mbilan]	Semlan	[s∂mlAn]
10	Ten	[s∂ten]	Ten	[s∂ten]	Hapuluh	[hapuluh]

The phonetic forms mentioned above indicate the existence of a linguistic kinship relationship between 3 languages, namely Indonesian, Malaysian Malay, and Cam language. The phonetic element of pronunciation of sounds from the vocabulary of numbers shows that there is no noticeable difference from the 3 languages. It even appears to be the exact same phonemic and phonetic, namely the number 2 /duwa/. While the similarity of 2 silabe is found in the number 10 /ten/ and the number 5 /five/ although in Cam language it is pronounced /lim∂ω/; the number 7 /seven/ where in Cam language there is a change in vowels to /tejuh/; While the similarity of 1 silabe is almost from all numbers.

Conclusion.

SEPAMA is one of the schools that provides Indonesian Learning for its students. Learning Indonesian for Foreign Speakers (BIPA) at SEPAMA Cambodia is carried out online using multimedia. The use of the zoom application, supporting BIPA learning in the network is well carried out. BIPA learning using multimedia can be accessed anywhere and anytime and teachers are able to understand the material quickly. However, this online learning is sometimes constrained by signals that are suddenly interrupted. So that the material presented is cut off. Cross Culture Understanding (CCU) in BIPA learning greatly influences the success of learning. It requires an understanding of the culture of the learners to be combined with the cultural context of the terms in the Indonesian. However, BIPA learning in Cambodia with this cross-language is less likely to have difficulties. Because the background of students who are still cognate with Indonesia.

Reference

[1]   Mohamad Zain Musa; and Muhammad Yamin Ismail, *Orang Islam Kampchea*, 1st ed., vol. 2022. Selangor, Malaysia: Ikatan Pembangunan Muslim Selangor ((ASMAK), 2022.

[2]   Wati Istanti, *Menjadi Pengajar BIPA Milenial Bahasa Indonesia Sebagai Penutur Asing*. Semarang: CV. Wicaksana Pustaka (Anggota IKAPI), 2020.

[3]   D. F. Rohimah, "Internasionalisasi Bahasa Indonesia Dan Internalisasi Budaya Indonesia Melalui Bahasa Indonesia Bagi Penutur Asing (Bipa)," *An-Nas*, vol. 2, no. 2, pp. 199–212, 2018, doi: 10.36840/an-nas.v2i2.104.

[4]   J. A. Dani and Y. Mediantara, "Covid-19 Dan Perubahan Komunikasi Sosial," *Persepsi:*, vol. 3, no. 1, pp. 94–102, 2020, doi: 10.30596/persepsi.v3i1.4510.

[5]   R. Zhang, N. C. Bi, and T. Mercado, "Do zoom meetings really help? A comparative analysis of synchronous and asynchronous online learning during Covid-19 pandemic," *J. Comput. Assist. Learn.*, 2022, doi: 10.1111/jcal.12740.

[6]   F. Sharmin, M. T. Sultan, D. Wang, A. Badulescu, and B. Li, "Cultural dimensions and social media empowerment in digital era: Travel-related continuance usage intention," *Sustain.*, vol. 13, no. 19, pp. 1–21, 2021, doi: 10.3390/su131910820.

[7]   M. Mocanu, "Les débuts de la lexicographie multilingue roumaine: ressorts pragmatiques et influences culturelles," *Lexikos*, vol. 32, 2022, doi: 10.5788/32-1-1680.

[8]   A. K. Wirawan, "Pembelajaran Bahasa Indonesia bagi Penutur Asing (BIPA) dengan Meode Immersion Teritegrasi Budaya Indonesia," *Kongr. Bhs. Indones. XI "Menjayakan Bhs. dan Sastra Indones.*, 2018.

[9]   T. A. P. Dewi and A. Sadjiarto, "Pelaksanaan Pembelajaran Daring Pada Masa Pandemi Covid-19," *J. Basicedu*, vol. 5, no. 4, pp. 1909–1917, 2021, doi: 10.31004/basicedu.v5i4.1094.

[10]   F. Firmansyah, "Motivasi Belajar dan Respon Siswa terhadap Online Learning sebagai Strategi Pembelajaran di Masa Pandemi Covid-19," *Edukatif J. Ilmu Pendidik.*, vol. 3, no. 2, pp. 589–597, 2021, doi: 10.31004/edukatif.v3i2.355.

[11]   Mochamad Riyanto, "Strategi Pembelajaran Pendidikan Anak Usia Dini Di Masa Pandemi Covid-19," *J. Suara Pengabdi. 45*, vol. 1, no. 1, pp. 48–54, 2022, doi: 10.56444/pengabdian45.v1i1.14.

[12]   M. Fikri, M. Zaki Ananda, N. Faizah, R. Rahmani, and S. Adelia Elian, "Kendala dalam pembelajaran jarak jauh di masa pandemi covid-19," *J. Educ. Dev.*, vol. 9, no. 1, pp. 144–150, 2021, [Online]. Available: https://doi.org/10.1016/jjheduc.2013.06.00.

[13]   Z. Abidin, A. Hudaya, and D. Anjani, "Efektivitas Pembelajaran

Jarak Jauh Pada Masa Pandemi Covid-19," *Res. Dev. J. Educ.*, vol. 1, no. 1, p. 131, 2020, doi: 10.30998/rdje.v1i1.7659.

[14] N. L. P. S. Adnyani, I. M. S. Paramarta, P. A. P. Sudana, I. N. Suparwa, and M. S. Satyawati, "Pengembangan Bahan Ajar BIPA Kontekstual Berbasis Budaya Lokal Bali," *Semin. Nas. Ris. Inov.*, vol. 2, pp. 73–77, 2014.

[15] D. Widyartono, Dawud, A. S. Ghazali, and T. Harsiati, "Kumpulan Esai Pengajaran BIPA," *Simp. Int. Pengajaran BIPA*, 2017.

[16] Sumarti;, S. Iing, and S. A. Eka, "Lintas Budaya (Interkultural) dalam Pembelajaran Berbicara bagi Peserta BIPA Darmasiswa di Universitas lampung.," in *KIPBIPA XI*, 2020, pp. 357–370.

[17] N. Muzni, "The Mass Media And Pluralistic Society Filteritation Media Hegemony Through The System Of Local Wisdom," *Proceeding Cross Cult. Underst. Wellbeing*, pp. 279–291, 2016.

[18] P. Y. Purwono and P. V. Aster, "Pembelajaran Bipa Dengan Aplikasi Awan Asa Berbasis Pengenalan Lintas Budaya," *Fon J. Pendidik. Bhs. dan Sastra Indones.*, vol. 17, no. 1, pp. 97–107, 2021, doi: 10.25134/fon.v17i1.4199.

[19] T. Eliawati and U. P. Utama, "cross cultural understanding - China.pdf," pp. 17–33.

Analysis of Mathematical Connection Ability Based on Spatial Visualization of Cartesian Coordinates at SMPN 21 Pontianak

Dewi Risalah[1]

Introduction

Mathematics is a science that has a relationship between topics with other topics. Therefore, students are required to be able to connect between topics with other topics. Mathematical ability in connecting between topics with others is the ability of mathematical connections [1]. Mathematical connection ability is the ability of students to find the relationship of a representation of concepts and procedures, to understand between mathematical topics, and the ability of students to apply mathematical concepts in other fields or in everyday life [2]. According [3] that, mathematical connection ability is a person's ability to show internal and external mathematical relationships, which include connections between mathematical topics, connections with other disciplines, and connections with everyday life.

Mathematics is a universal knowledge that underlies the development of modern technology. Mathematics is a science that can improve a person's ability to obtain, select and process information in ordered solve the daily problems he faces in life [4]. Based on the regulation of the ministry of education and culture No. 65 of 2013 that, Mathematics learning in the 2013 curriculum emphasizes the modern pedagogic dimension in learning, namely using a scientific approach (Scientific Approach) including observing, asking, reasoning, trying, forming networks for all lessons. Mathematics learning must be able to develop several skills, namely: 1) mathematical problem solving; 2) reasoning and proof of mathematics learning; 3) mathematical communication; 4) mathematical connection; 5) mathematical representation [5].

Mathematical connections are important for students because with mathematical connections students can connect a material with other materials, students can understand the mathematical concepts they are learning because they have mastered material related to everyday life, in addition if students are able to relate the material being studied with the previous subject with other subjects, then mathematics learning becomes more meaningful [6]. The indicators of mathematical connection ability applied in this study

are: 1) understanding the relationship between mathematical topics; and 2) connecting mathematics in other fields of study or daily life.

In connection with the connection between mathematical topics, geometry is one of the subjects with the ability to understand, visualize, represent, solve problems, communicate, and reason. Geometry, one of the dominant abilities in spatial structure is spatial ability. The material studied in geometry is about points, lines, angles, flat shapes, spatial shapes and their properties and their relationship to one another [7]. Spatial ability is the ability to see the visual-spatial world accurately and the ability to make changes by seeing or imagining [8]. According to [9] spatial ability is the ability to analyze, visualize, understanding and express imaginative signs and shapes.

Spatial visualization ability is one of the important factors in solving geometric problems, one of which is describing an object. In describing an object, students must be able to develop their spatial abilities completely and thoroughly starting from concepts, representation tools to their reasoning thinking processes [10]. If this spatial visualization ability is not developed, it is likely that students will have difficulty learning geometry [11]. In addition, the spatial visualization ability possessed by students will affect their learning outcomes [12]. Therefore, researchers have an interest in knowing how mathematical connection skills are seen from the spatial visualization of students on Cartesian coordinates at SMPN 21 Pontianak.

Discussion
Research Focus and Sub Focus

Based on the background that has been described, what will be the focus of this research is How to analyze Mathematical Connection Ability Based on Spatial Visualization on Cartesian Coordinates at SMPN 21 Pontianak. The sub-focus in this research is:

A. How is the mathematical connection ability of high-level students seen from the spatial visualization of the Cartesian coordinate's material at SMPN 21 Pontianak?
B. How is the student's mathematical connection ability seen from the spatial visualization of the Cartesian coordinate's material at SMPN 21 Pontianak?
C. How is the mathematical connection ability of students low as seen from the spatial visualization of the Cartesian coordinate's material at SMPN 21 Pontianak?

Research Purposes

The purpose of this research in general is "to determine the ability of students' mathematical connection seen from the spatial visualization of the Cartesian coordinates material at SMPN 21 Pontianak. In addition, the purpose of this research is to find out:

A. Students' mathematical connection ability is high by solving Cartesian coordinate problems.
B. Students' mathematical connection ability is moderate by solving Cartesian coordinate problems.
C. The students' mathematical connection ability is low in solving Cartesian coordinate problems.

Benefits of Research

This research is expected to have benefits that can be taken and used as a reference. As for what is meant is theoretical benefits and practical benefits.

The Scope of Research

The variable in this study is the ability of mathematical connections seen from the spatial visualization of students on the Cartesian coordinate's material. While the population or the subject of this research are students of SMPN 21 Pontianak. The operational definition in this study is the ability of mathematical connections which is the ability of students to connect or link between topics, both mathematics topics and mathematics itself, or mathematics with everyday life. Then spatial visualization, which is the ability to visualize the displacement of an object or shape, both spatial and flat. Furthermore, the material Cartesian Coordinates which is the material studied by students of SMPN 21 Pontianak. The Cartesian coordinate system is an arrangement of two number lines that intersect at right angles to the point O (0,0). The horizontal number line is the X-axis, and the vertical is the Y-axis.

Research Methodology

The method used in this research is descriptive method and the type of research used is qualitative research, while the form used in this research is case study research. The background of the research, this research will be carried out at SMPN 21 Pontianak. The data in this study were the results of students' mathematical connection ability tests and interviews, while the data sources in this study were students of class VIII-A SMPN 21 Pontianak. Research procedure

There are three main stages in qualitative research, namely: the description stage: or the orientation stage (preparation), the reduction stage (implementation), and the selection stage (data analysis). Data collection techniques used in this study are observation, measurement, and direct communication. Based on the data collection techniques in this study, the data collection tools used were tests and interviews.

Technical data analysis, in accordance with the research objective to answer "how is the mathematical connection ability seen from the spatial visualization of students on Cartesian coordinates material at SMPN 21 Pontianak?". The steps taken by the researcher are to reduce the data and present the data. In this study, the validity of the data was carried out by using triangulation techniques.

Question:
Complete the following questions:
Observe the Cartesian coordinates below to solve problems 1 and 2.
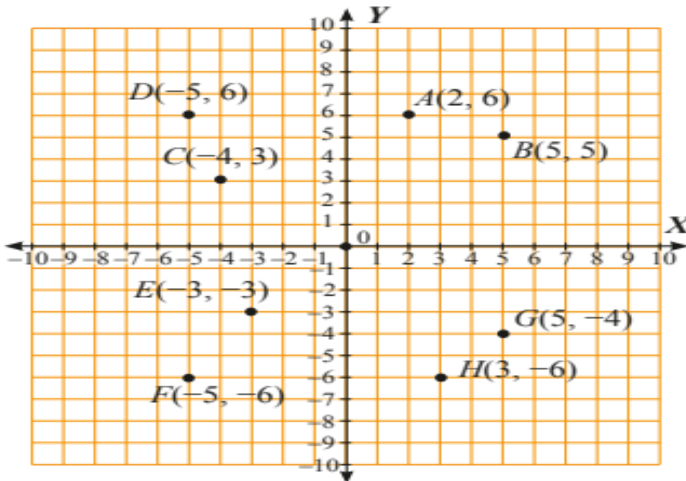
1. Determine the distance of point G to the x-axis and y-axis

Point Coordinates	Distance to x-axis	Distance to y-axis
G(5, -4)		

2. Determine the distance of point H to the x-axis and y-axis

Point Coordinates	Distance to x-axis	Distance to y-axis
H(3, -6)		

Answer:

Table 1 Question the Distance of the Point to the x-axis and y-axis

Nr	Point Coordinates	Distance to x-axis	Distance to y-axis
1	G(5, -4)	4 Units	5 Units
2	H(3, -6)	6 Units	3 Units

In questions no. 1 and 2 there are indicators of mathematical connections, namely understanding the relationship between mathematical topics, while the spatial visualization is seen from the displacement of points G and H on the X and Y axes.

Look at the camp plan below to work on questions 3 and 4
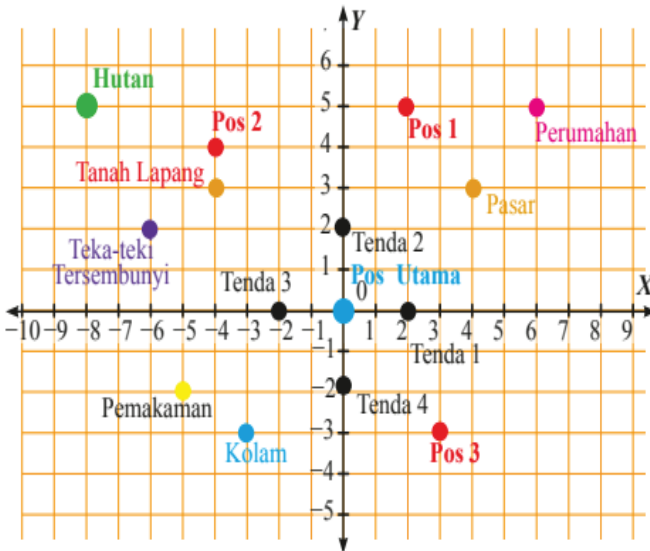
Table 2 Question 3 and 4

Nr	Position and origin (0,0)		Position against		
	Object	Coordinate	Tenda 1 (2,0)	Pos 1 (2,5)	Pasar (4,3)
3	Pemakaman	(-5, -2)	7 units to the left and 2 units down		
4	Pasar	(4, 3)		2 units to the right and 2 units down	

Answer:

Table 3 Specific Place Position

Nr	Position and origin (0,0)		Position against		
	Object	Coordinate	Tenda 1 (2,0)	Pos 1 (2,5)	Pasar (4,3)
3	Pemakaman	(-5, -2)	7 units to the left and 2 units down	7 units to the left and 7 units down	9 units to the left and 5 units down
4	Pasar	(4, 3)	2 units to the right and 3 units up	2 units to the right and 2 units down	0 units to the right and 0 units up

In questions no. 3 and 4 there are indicators of mathematical connections, namely connecting mathematics in other fields of study or daily life, while the spatial visualization is seen from the displacement of the position of Post 1 and the Market to the object, namely the cemetery, the displacement of the position of Tent 1 and the Market to the object, namely the market through X axis and Y axis.

Conclusion

Mathematical connection ability is the ability that a person has in linking or connecting between topics, both between math hats and between other topics and in the real world or everyday life. While spatial visualization is a person's ability to imagine or provide an overview of modalities from the sense of sight about a flat shape or a two-dimensional or three-dimensional space whose parts there are changes or displacements.

References

[1]   E. D. P. Latipah, & E. A. Afriansyah, Analisis Kemampuan Koneksi Matematis Siswa Menggunakan Pendekatan Pembelajaran CTL dan RME, *Jurnal Matematika*, *17*(1), 1–12, 2018.

[2]   S. Isnaeni, A. Ansori, P. Akbar , & M. Bernard, Analisis Kemampuan Koneksi Matematis Siswa SMP pada Materi Persamaan dan Pertidaksamaan Linear Satu Variabel, *Jurnal On Education*, *01*(02), 309–316, 2018.

[3]   M. S. Bakhril, N. R. D., & Kartono, Kemampuan Koneksi Matematis Siswa Melalui Model Pembelajaran Peer Tutoring Cooperative Learning. *PRISMA, Prosiding Seminar Nasional Matematika*, *2*, 754–758. 2019.

[4]   P. Yasinta, E. Meirista, & A. R. Taufik, Peningkatan Kemampuan Berpikir Kritis Matematis Siswa Melalui Pendekatan Contextual Teaching and Learning (CTL), *Asimtot:Jurnal Kependidikan Matematika*, *2*(2), 129–138, 2020.

[5]   U. Ulya, Irmawati, & Maulana, Peningkatan Kemampuan Koneksi Matematis dan Motivasi Belajar Siswa Menggunakan Pendekatan Kontekstual. *Jurnal Pena Ilmiah*, *1*(1), 121–130. 2016.

[6]   A. K. Kenedi, S. Hendri, H. B. Ladiva, & Nelliarti, Kemampuan Koneksi Matematis Siswa Sekolah Dasar Dalam Memecahkan Masalah Matematika. *Jurnal Numeracy*, *5*(2), 226–235, 2018.

[7]   I. L. Nur'aini, E. Harahap, F. H. Badruzzaman, & D. Darmawan, Pembelajaran Matematika Geometri Secara Realistis Dengan GeoGebra. *Jurnal Matematika*, *16*(2), 1–6. 2017.

[8]   F. M. Arnis, E. Syahputra, & E. Surya, Analisis Lintasan Berpikir Siswa SMP Untuk Menyelesaikan Masalah Spasial Setelah Melalui Pembelajaran Pendidikan Matematika Realistik, *Paradikma Jurnal Pendidikan Matematika*, *13*(2), 73–78, 2020.

[9]   Kumastuti, Supartono, & Dwijanto. Pembelajaran Bercirikan Pemberdayaan Kegiatan Belajar Kelompok Untuk Meningkatkan Kemampuan Keruangan, *Unnes Journal of Mathematics Education Research*, *2*(1). 2013.

[10]   K. D. Octaviani, N. Indrawatiningsih, & A. Afifah, "Kemampuan Visualisasi Spasial Siswa Dalam Memecahkan Masalah Geometri Bangun Ruang Sisi Datar. *International Journal Of*

Progressive Mathematics Education, *1*(1), 27–40. 2021

[11] S. Rizkiana, P. Darmawan, & N. Prayekti, Kemampuan Visual Spasial Siswa dalam Menyelesaikan Soal Bangun Ruang Kubus dan Balok. *Prosiding Seminar Nasional MIPA UNIBA*. 2019.

[12] J. Harmony, & R. Theis, Pengaruh Kemampuan Spasial Terhadap Hasil Belajar Matematika Siswa Kelas VII SMP Negeri 9 Kota Jambi, *Edumatica*, *2*(1), 11–19. 2012

The Effect of Leadership Style on Motivation and Employee Performance

Dian Sudiantini[1,] Bintang Narpati[2], Kardinah Indrianna Meutia[3]
Farhan Saputra[4]

Introduction

In the current era of economic competition, human resources is a very important factor, as every company is very dependent on it, which ultimately determines the achievement of the goals and objectives of the company. Excellent human resources will become a driver of activities of the organization, making the company excels the lines of business. The organization's activities will run well if it has good human resources and the vice versa.

Wagimo and Ancok [2] state that there are many studies on human resources to focus on the role of leadership in organizational factors. The definition of leadership may vary depending on the perception of the individual and phenomenon in society.

A person can be said to be a transformational leader when measured from their influence toward subordinates that is based more on trust and commitment than contractual agreements. Transformational leaders help followers see the importance of achieving the vision and mission of the group or organization exceeding the benefit of the followers toward the leaders, and thus they are expected to create a strong, positive influence on the motivation and achievement of the followers [9]. Basically, transactional and transformational leadership cannot be seen as the opposite approach in resolving all issues concerning leadership. Transformational leadership is built on transactional leadership. Bass [4] states that all transactional leadership theory has always had a focus to attract followers or subordinates to achieve their best performance through a deal for benefits they will receive.

Changes should start from the top level or leader; this is because a leader is a role model within the organization. Transformational style proposed by Bass in Yukl [16] that "Transformational leadership further improves motivation and performance of followers than transactional leadership does." In this leadership theory, according to Bass in Yukl [16],"The followers feel the trust, admiration, loyalty, and respect for leaders and they are

[1] University of Bhayangkara Jakarta, dian.sudiantini@gmail.com
[2,3,4] University of Bhayangkara Jakarta

motivated to do more than what has been originally expected of them." When both of these theories are combined (transformational and transactional leadership), it is expected to give maximum impact to the followers or employees.

In addition to leadership by leaders, motivation also has an important role as motivationimproves the performance of employees. The importance of motivation is disclosed by Hasibuan [8] is that "motivation is a cause, distributes, and supports human behavior
so they work hard and enthusiastically to achieve optimal results." Such motivation can stimulate employees to better mobilize energy and mind in realizing the company's goals. If the need for it is met, then there will be satisfaction and smoothness to the improvement of employee performance.

According to Sedarmayanti performance is also translated as achievement or outcomes. According to Ainsworth and Smith, [1] "Performance is the end point of people, resources, and certain environmental, which is gathered together with the intention to produce certain things, whether tangible products or intangible services".

Improved performance will be realized if the employees have the ability to complete the job or task that they are responsible respectively. Therefore, leaders are expected to give impetus or motivation for employees. The problem most often encountered by leaders of the organization is to find the best way to help employees have a sense of belonging for the existence and their responsibilities in the company. To address employee performance canbe done by seeking the needs of employees. The needs and desires of these workers will be able to accelerate and to become the reason for employees to work as best as possible in order to achieve company's goals. Motivation then is the right way to provide energy to drive the potential of employees, to create togetherness, and to find the desire of the employees working in the organization.

Based on the descriptions above, it can be seen that in order to achieve good performance and good motivation, it takes a combination of transformational and transactional leadership style

Literature Review

According to Bass [4], leaders change and motivate followers by raising the level of awareness of subordinates of the interest and value of the work assigned and how to achieve it, make subordinate to think and work beyond personal interests and focus on the interest of the group of organization or community, and change level of hierarchy by expanding the needs of subordinates. Robbins [13] gives the definition

of transformational leadership as a leader who inspires followers to go beyond their personal interests and capable of carrying a profound and extraordinary effect on the followers.

Based on the afore-mentioned explanation, we can conclude that transformationalleadership style directly and indirectly change employees by expanding their needs. This leadership styles emphasizes the positive value of the work. According to Muchiri, a transformational leader shows charisma, inspirational motivation, intellectual stimulation, and individualized consideration. With transformational leadership, followers feel the trust, admiration, loyalty, and respect for the leaders, and they are motivated to do more than what is expected on them.

Hasibuan [8] states transactional leadership and transformational leadership may be found in one leader because one can display a variation of transformational and transactional leadership at the same time. Problems in an organization may vary, so are subordinates, and therefore variations of both styles of leadership are expected to provide better results in the achievement of corporate goals.

Transactional and transformational leadership cannot always been seen as a different approach to resolve any problems within the organization. Transformational leadership is built on top of transactional leadership. Transformational leadership produces higher level of effort and performance of employees, beyond what would happen with transactional leadership; and it can be conclude that "Transformational leadership is proven by the very strong relationship with a low turnover, high productivity, and higher employee satisfaction" .

Locke *et al*. discloses transactional leadership is not the opposite of transformational leadership; the opponent of this leadership style is static leadership or*status quo*. Locke *et al.* also reveals various concepts of transactions that are applied in transactional leadership style. Locke *et al.* state that "rewards given to followers are short-term benefits and long-term". This concept is similar to the concept proposed by Kunhert and Lewis

They state "there are two levels of transaction between the leader and his followers, the high level of transactions and the low level of transactions" and one of which is the form of interpersonal transaction relating to transactions between the leadership with subordinates.

Table 1 – Variables And Indicators Of The Research

Leadership Style	Transformational Leadership Style (X1)	1. Charismatic	Leader as an example Trust toward leader Leader as a regulator
Aditya (2010) says "Transformational leadership style makes employees within a company in a race to obtain the best results or targets beyond their best performance.". Transformational leadership style emphasizes appreciation of goals so people will have confidence that their actual performance will exceed their expected performance.	Muchiri (2002 :270)	2. Inspirational motivation	Career certainty Financial security Leader as an example
		3. Intellectual Simulation	Chance to improve Chance to share new ideas Chance for creative thinking
		4. Individualized consideration	Interesting tasks Leader facilitates self development Bonus
	Transactional Leadership Style (X2) Gary Yukl (2004 : 148)	1. Contingent Reward	Bonus Task explanation
		1. Active Exception Management	Monitoring employee development Intervention from leader
		1. Passive Exception Management	Setting standard and procedure Setting reward and punishment
Motivation	Work Motivation (Y1) Winardi (2002:78)	1. Existence Needs	Adequate incentives Feeling safe from being fired
		2. Relatedness Needs	Communication with leader Communication with colleagues
		3. Growth Needs	Chance to improve career Challenging tasks
Performance	Employee Performance (Y2)	1. Quality of Work	Suitability on work outcome Perfect work outcome
	Bernaddin and Russel(1993:383)	2. Quantity of Work	Sales exceeding target Meeting the target
		3. Punctuality	Punctuality Work completed after demand

		4. Ability to Work Independently	Employees follow instructions Employees can work withoutsupervision
		5. Ability to Work Together	Able to develop good relationship with leader Able to develop good relationship with colleagues

According to Nawawi [7] from the point of psychological theory, motivation can be divided into two categories, namely the content theory and process theory. The content theory of motivation includes the theory of Maslow's needs, the ERG theory, the two-factor theory of Hezberg, and the achievement theory. Alderfer Claytorn from Yale University develops ERG theory. ERG stands for Existence, Relatedness, and Growth. Alderfer in Winardi (2002: 78) argues that Alderfer is not satisfied with the need theory of Maslow, then he develops an alternative about human needs.

The three needs by Alderfer in Winardi are as follows:

A. The need for the existence (Existence Needs = E) is the requirement that covers all the desires belonging to the physiological and material needs.

B. The need to belong to a group (Relatedness Needs = R) is the need to have a harmonious relationship with other parties or colleagues and satisfaction which is achieved due to a sense of belonging and a feeling of safety.

C. The needs for growth (Growth Needs = G) is the need to develop into a human being and to take advantage of the entire individual's ability to achieve their full potential.

From the above opinion, it can be concluded that although human needs looks like a ladder as described by Maslow, however, according to Alderfe, it is not persistent, meaning that if the above requirements are already fulfilled does not mean the needs below will not be filled again.

Performance or achievements of employees are affected by many factors, which in turnis used as the basis for determining the policy of the company in order to increase and improve employee performance.

Employee assessment is a systematic evaluation of the work of employee potential thatcan be developed further. Assessment is the process of determination of value, quality, orthe status of some

objects, people or something. According to Handoko (2001:135), the performance evaluation is a process in which organizations evaluate or assess the performance of the employees.

Bernaddin and Russel [5] suggest six key performance criteria that can beused to assess an employee, i.e. quality, quantity, timeliness, cost effectiveness, independence, and cooperation.

Any leader who wants to promote and enhance the company better must own good leadership style. An organization having intelligent employees and rapidly changing dynamics obviously needs transformational leadership style as capital for every leader and manager in the company.

Methods of Research

In accordance research objectives, this case study is explanations (explanatory research), According to Churchill, explanatory research is a design with more emphasis on gathering ideas and inputs, and is especially useful for solving a widespread problem by making narrower and more precise sub-problems. The main emphasis of explanatory research is on the discovery of new ideas in testing new hypotheses that have been formulated to later be verifiable.
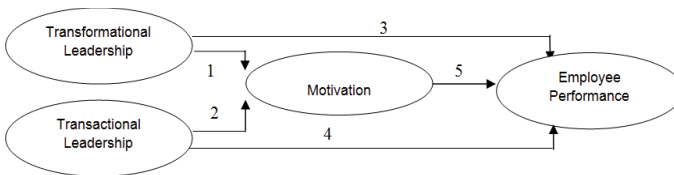
Figure 1 – Conceptual Model of the Research

The study was conducted at Bank Banten. The company is engaged in Leasing and Finance, a subsidiary of Mitsubishi Corporation. South Sulawesi. The reason for choosing DSF as a research site is because DSF has advanced technology and high intelligent employees, so a transformational and transactional leadership style is needed in order to provide motivation to the improvement of employees performance.

This study used systematic random sampling to determine the sample. According to Sugiyono [14], systematic random sampling is sampling involves a systematic order of rules in certain populations. Probability of sampling is not the same regardless of the similarity frequency of each member of the population. To determine the sample

size used inthis study, Slovin Formula with a tolerance of 10% was used, so the number of sample usedin this study was 57 respondents. Data collection is a systematic and standard procedure to obtain the necessary data. The data was collected through questionnaires. The items on the questionnaire were closed, and respondents were provided five alternatives of answers.

Table 2 The Relationship of Variables

Effect	Path Coefficient	t-count	p-value	R^2
X1→Y1	0.326	2.201	0.032	24.4%
X2→Y1	0.492	3.322	0.002	36.8%
Total				61.2%
X1→Y2	0.276	2.154	0.036	21.8%
X2→Y2	0.297	2.204	0.032	23.5%
Y1→Y2	0.362	3.208	0.002	28.6%
Total				73.9%

Source: Data processed (2015).

Note: X1 = Transformational Leadership, X2 = Transactional Leadership, Y1 = Motivation, Y2 = Performance.

Results And Discussion

The coefficient of determination explains how much the model explains the path formedin explaining the data used in the study. The determination coefficient value ranges from 0.0% to 100%, where the higher the coefficient of determination, the better the model in explaining the data used.

$$R^2_m = 1 - (1 - 0.612) \times (1 - 0.739) = 0.899$$

Total determination coefficient obtained based on the calculation model of the path is 0.899 that showed that the model could explain 89.9% of the data used in the study. Hypothesis one (H1) tested whether there was the effect transformational leadership on employee motivation.

Table 3 The Effect of Transformational Leadership on Employee Motivation

Effect	Path Coefficient	Standard Error	t-count	p-value
X1→Y1	0.326	0.148	2.201	0.032

Note: X1 = Transformational Leadership, X2 = Transactional Leadership, Y1 = Motivation.

The path coefficient (β = 0.326) shows that a good transformational leadership will significantly improve employee motivation, and the vice versa - unfavorable transformational leadership will significantly lower employee motivation.

Table 4 The Effect of Transactional Leadership on Employee Motivation

Effect	Path Coefficient	Standard Error	t-count	p-value
X2→Y1	0.492	0.121	3.322	0.002

Note: X1 = Transformational Leadership, Y1 = Motivation. Source: Data processed (2015).

The path coefficient (β = 0.492) shows that a good transactional leadership will significantly improve employee motivation, and the vice versa—unfavorable transactional leadership will significantly lower employee motivation.

Table 5 The Effect of Transformational Leadership of Employee Performance

Effect	Path Coefficient	Standard Error	t-count	p-value
X1→Y2	0.276	0.059	2.154	0.036

Note: X1 = Transformational Leadership, Y2 = Performance. Source: Data processed (2015).

123 The path coefficient (β = 0.276) shows that a good transformational leadership will significantly improve employee performance, and the vice versa - unfavorable transformational leadership will significantly lower employee performance.

Table 6 – The Effect of Transactional Leadership on Employee Performance

Effect	Path Coefficient	Standard Error	t-count	p-value
X2→Y2	0.297	0.051	2.204	0.032

The path coefficient (β = 0.297) shows that a good transactional leadership will significantly improve employee performance, and the vice versa - unfavorable transactional leadership will significantly lower employee performance.

Table 7 – The Effect of Motivation on Performance

Effect	Path Coefficient	Standard Error	t-count	p-value
Y1→Y2	0.362	0.052	3.208	0.002

The path coefficient (β = 0.3.62) shows that good motivation will significantly improve employee performance, and the vice versa—bad motivation will significantly lower employee performance.

Table 8 – The Indirect Effect of Transformational Leadership on Performance through Motivation

Effect	Path Coefficient	Standard Error	t-count	p-value
X1→Y1→Y2	0.118	0.057	2.081	0.038

The path coefficient (β = 0.118) shows that a good transformational leadership will significantly improve employee performance in accordance with the increase in motivation, and the vice versa - unfavorable transformational leadership will significantly lower employee performance in accordance with the decrease in motivation.

Table 9 – The Indirect Effect of Transactional Leadership on Performance through Motivation

Effect	Path Coefficient	Standard Error	t-count	p-value
X2→Y1→Y2	0.178	0.051	3.484	0.001

The path coefficient (β = 0.276) shows that a good transactional leadership will significantly improve employee performance in accordance with the increase in motivation, and the vice versa—unfavorable transactional leadership will significantly lower employee performance in accordance with the decrease in motivation.

The first hypothesis stating that transformational leadership has a significant effect on work motivation is accepted. The test results show there is a positive and significant effect of transformational leadership on employee motivation. It can be seen from the t-count value (2.201) which is greater than t-table (1.960) and p-value (0.032). This is consistent with the theory (Jung & Avolio, 1999: 209) that trust, admiration, loyalty, and respect from followers to leaders is expected to create a strong, positive influence on the motivation and achievement of followers.

The second hypothesis stating that transactional leadership has a significant effect on motivation is accepted. The test results show there is a positive and significant of transactional leadership on employee motivation. It can be seen from the t-count value (3.322) greater than t-table (1960) and the p-value (0.002) which is smaller than alpha value (0.050).

The third hypothesis stating that transformational leadership has a significant effect on performance is accepted. The test results show there is a positive and significant impact of transformational leadership on performance. It can be seen from the t-count value (2.204) which is greater than t-table (1.960) and the p-value (0.032) which smaller than alpha value (0.050). The path coefficients (β = 0.297) indicates that a good transformational leadership will significantly improve the performance of employees, and the vice versa, unfavorable transformational leadership will significantly decrease the performance of employees.

The third hypothesis stating that transactional leadership has a significant effect on performance is accepted. The test results show there is a positive and significant impact of transactional leadership on performance. It can be seen from the t-count value (2.204) which is greater than t-table (1.960) and the p-value (0.032) which smaller than alpha value (0.050).The path coefficients (β = 0.297) indicates that a good transactional leadership will significantly improve the performance of employees, and the vice versa, unfavorable transactional leadership will significantly decrease the performance of employees.

The fifth hypothesis stating that work motivation has a significant effect on the performance of employees of PT. Dipo Star Finance Makassar Branch is accepted. The test results show there is a positive and significant impact of work motivation on performance. It can be seen from the t-count value (3.208) which is greater than t-table (1.960) and the p- value (0.002) which smaller than alpha value (0.050). The path coefficients (β = 0.362) shows that high motivation will significantly improve the performance of employees, and the vice versa, low motivation will significantly decrease the performance of employees.

This study contradicts the research done by Munawaroh (2011), which examines a Catholic high school in Malang, East Java. In the study, transactional leadership styles havea negative response. This occurs, as PT. Dipo Star Finance is a profit-based company in which reward and punishment will be a trigger for employees to improve performance.

Conclusion

The hypothesis in this study showed a significant and positive response. We can conclude that both transformational and transactional leadership style directly affects the performance of employees of PT. Dipo Star Finance. Transactional leadership style brings a good effect on performance, which is different from the study that examined an educational institution in which transactional leadership style has a negative response. For profit-based organizations, transactional leadership style is suitable to be applied by the upper-level managers.

Refrences

[1]   M. Ainsworth, N. Smith, *Managing Performance Managing People: Panduan Praktis Untuk Memahami dan Meningkatkan Performa Tim*. Jakarta: PT. Bhuan Ilmu Populer. 2002.

[2]   D. Ancok, & Wagimo, The Impacts of Transactional and Transformational Leadership on Job Motivation in Military Personel. *Jurnal Psikologi, 32,* (2), 112-127. 2005.

[3]   A. P. Mangkunegara, Sumber Daya Manusia Perusahaan. Remaja Rosdakarya: Bandung. 2005.

[4]   B. M. Bass, *Leadership and Performance Beyond Expectations*. NY: Free Press. 1990

[5]   H. J. Bernardin, and , J. E. A. Russel (1993). Human Resource Management, Singapore: McGraw Hill Inc, 1993.

[6]   J. Greenberg. and R. A. Baron, *Behavior in Organizations*. New Jersey: Pearson Education, Inc, 2003.

[7]   H. Nawawi.   *Metode Penelitian Bidang Sosial*. Yogyakarta: Gadjah Mada University Press. 2005.

[8]   M. S. P. Hasibuan, *Organisasi dan Motivasi: Dasar Peningkatan Produktivitas*, Jakarta: PT Bumi Aksara, 2001.

[9]   D. I. Jung, and B. J. Avolio, Effects of Leadership Style and Followers Cultural Orientation on Performance in Group and Individual Task Conditions. *Academy of Management Journal. 42,* (2), 208-218. 1999

[10] F. Luthans, *Perilaku Organisasi,* (Alih Bahasa V. A. Yuwono, dkk). Edisi Bahasa Indonesia, Yogyakarta: ANDI. 2006.

[11] Munawaroh*, Pengaruh Gaya Kepemimpinan Transformasional Dan Transaksional Terhadap Kinerja Guru Di SMP Katolik Wijana Jombang*. Malang: Fakultas Ilmu Adminisitrasi Bisnis Universitas Brawijaya. 2011

[12] V. Rivai, and A. F. M. Basri, *Performance Appraisal*. Cetakan Pertama, PT. Raja Grafindo Persada, Jakarta. 2005

[13] S. P. Robbins, (2007). *Perilaku Organisasi. Alih Bahasa: Benyamin Molan.* Jakarta: Indeks. 2007.

[14] Sugiyono. *Metode Penelitian Bisnis (Pendekatan Kuantitatif, Kualitatif dan R&D)*. Bandung: Alfabeta. 2010.

[15] H. Umar, *Strategic Management in Action*. PT. Gramedia Pustaka Utama. Jakarta. 2001.

[16] G. Yukl, *Leadership In Organizations* (7th ed.). Upper Saddle River, NJ: Prentice Hall. 2010.

Islamic Corporate Governance Reduces Islamic Bank Fraud?

Early Ridho Kismawadi[1]

Introduction

Corporate Governance Deals with How Lenders of Money to Companies Make Sure They Will Get A Return on Their Investment. Corporate governance matters for firm performance and this relationship is fully incorporated by the market, then a stock price should quickly adjust to any relevant change in the firm's governance. As well as expanding empirical data, it is now widely acknowledged that corporate governance structures can have a significant impact on shareholders. Governance is important for performance, market valuation, and access to external capital. Corporate governance is not an exception, as the American model and best practice are regarded as universal among private companies worldwide.

The recent financial crisis has proven that traditional corporate governance was not sufficiently "prepared" to face the financial catastrophe. In the face of such crises, the unitary and dual systems of corporate governance, as well as the Chinese system, which leaves little room for debate, have become outmoded. After the financial crisis, the notion of corporate governance had to be rebuilt, with certain components reformulated under the pretense of other definitions, with a greater emphasis on ethics and social responsibility. The current financial crisis was not prevented by traditional corporate governance, but as if that weren't bad enough, it also encouraged businesses to violate corporate accounting standards in order to maximize short-term profits rather than encouraging greater corporate responsibility to prevent major catastrophes before they happen. Three conventional forms of corporate governance vary per country, reflecting differences in legal systems, cultural systems, and economic settings. Nonetheless, there are certain common "obstructive" characteristics.:

A. Minor stockholders with a negligible impact on the stock price are disregarded.
B. These types of corporate governance are unethical since they abuse the workforce through outsourcing and underpayment.

---

[1] Langsa State Islamic Institute, kismawadi@iainlangsa.ac.id

C. These methods of corporate governance are extreme versions of Ponzi schemes1, which are built on dishonest and unethical business practices.

The fact that Islamic banks engage in fraud is ironic[1]. Cases of fraud in Islamic banks are illustrated in study undertaken by[2], [3], [12], [13], [4]–[11]. Islamic banks are banks that utilize Islamic law as their source of bank operating activities. The Islamic religion severely condemns fraud. It implies that the Islamic regulations that provide the basis for the operations of Islamic banks should make them more secure against fraud than normal banks[14].

In recent years, Islamic corporate governance (ICG) has attracted considerable attention. As a result of the present financial crisis, conventional banking's corporate governance methods have been called into doubt. The extraordinary amount of losses incurred by the world's largest financial institutions has thrown corporate fairness, transparency, and responsibility into the limelight. In addition, there is a rapid increase in the number of persons who are religiously sensitive, invest in accordance with their personal convictions, and favor Sharah-compliant banks[15].

Discussion

Corporate Governance (CG) in the Islamic context has a similar connotation to "sharia governance," which is a crucial and fundamental part of adopting sharia principles in Islamic banking. The implementation standard for Islamic Corporate Governance refers to the standards established by AAOIFI, one of the Islamic corporate governance systems for sharia-compliant financial firms. Islamic finance is an alternative that operates on the basis of moral and religious principles. In terms of corporate governance, Islamic finance, which was neglected before to the financial crisis, has demonstrated greater resilience and the ability to resist or avert subsequent financial crises. Due to the "Tawhid" idea, it does not prioritize profit maximization for a select few, but rather, as an inclusive field, it ensures the welfare of the entire society as can be observed,

Islamic corporate governance (ICG) consists of two primary components. Initially, Shariah governance, which secures Shariah principles by adhering to Islamic law standards in banking activities. Second, the typical corporate governance structure, which ensures the banks' efficiency and performance by leading, controlling, and managing banking operations. The proposed notion of Islamic corporate governance is an effort to recognize the uniqueness of Islam in regard to the issue of corporate governance and the numerous

theories created by western schools of thought in this crucial business field. Corporate governance has attracted a great deal of attention since it serves as a tool for directing the economy. Three distinct approaches were used to respond to questions on Islamic corporate governance. "decision making via consultation (shura)", "decision making for which Allah is the end through the institution of hisba and muhtasib to ensure Sharia law conformity", and "accountability to Allah as human trustee to resources granted by religious audit".

Islamic corporate governance (ICG) strives to direct the legal system and governance in accordance with Islamic law's moral ideals (Shariah). In general, a company can be considered Shariah-compliant if it meets two criteria: first, it eliminates companies that are involved in products and services deemed forbidden by Islamic law, such as conventional financial institutions, alcohol, and pork-related products, and excludes companies with liquidity; and second, any income that is not entitled to the company is reduced and donated to charity. Implementing Islamic corporate governance is essential for the creation of internal anti-fraud measures for senior bank officials such as directors, management, internal auditors, and external auditors. The achievement of this goal would shed light on the role of Islamic corporate governance in fostering sustainable business practices and, consequently, in enhancing the financial performance of Islamic banks.

The basis of Islamic corporate governance (ICG) is the relationship between the spiritual and material paradigms. It makes an effort to create a fair socioeconomic structure. A company typically places emphasis on increasing profit margins and lowering product costs. When conducting business, ethical and moral ideals are rarely given priority. Due to their incorporation into society, businesses have moral and ethical responsibilities in addition to their desire to make a profit. Religion and moral principles play a significant role in creating and fostering an organizational culture. As part of their moral duty, businesses have a responsibility to consider their stakeholders while pursuing profits. There is much literature on the effects of corporate governance on bank performance, the effects of corporate governance on bank loan quality, and the relationships between in the context of banking. financial performance and shariah governance, In Islamic Bank, however, there are very few instances where corporate governance and Shariah governance are related.
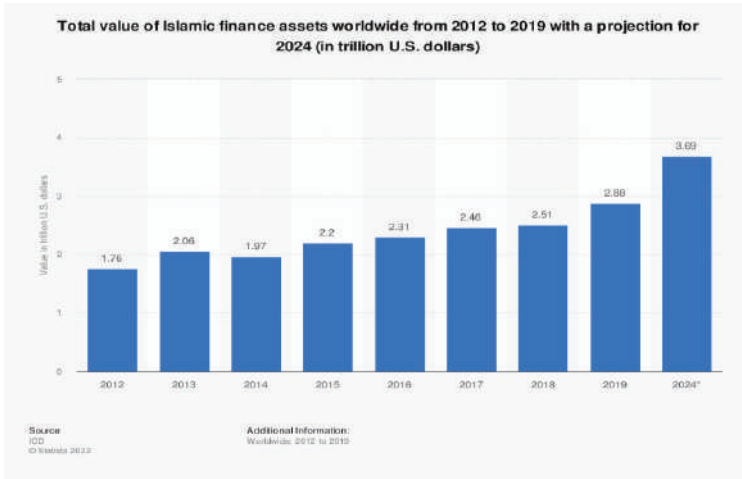
Figure 1 Total Value of Islamic Finance Assets Worldwide from 2012 to 2019 with a Projection for 2024

From the figure 1 above, it can be seen that in general the total of Islamic finance assets in 2012-2019 has an increasing trend, it can be seen that in 2012 the total Islamic finance assets amounted to 1.76 trillion US dollars, although in 2014 it decreased slightly but in the following years it consistently increased and is predicted in 2024 to reach 3.69 trillion US dollars
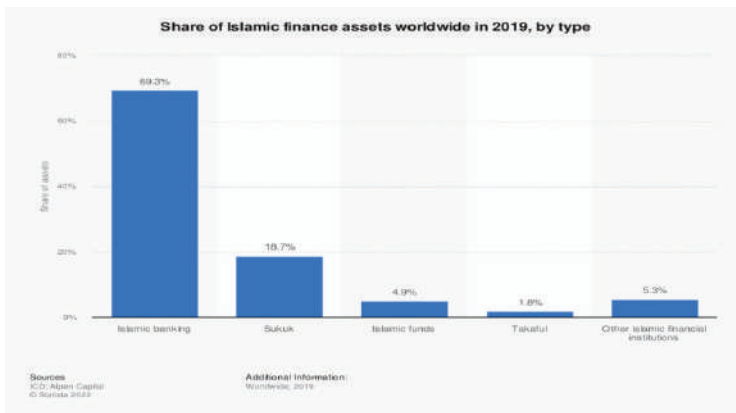
Figure 2 Share of Islamic Finance Assets Worldwide in 2019, by Type

From the figure 2 above, it can be seen that Islamic banks dominated Islamic finance assets in 2019, Islamic banks eliminated Islamic finance assets with 69.3 percent, followed by debt securities in the form of Sukuk by 18.7 percent, Islamic funds by 4.9 percent, takaful 1.8 percent and the remaining 5.3 percent financing in other Islamic financial institutions.
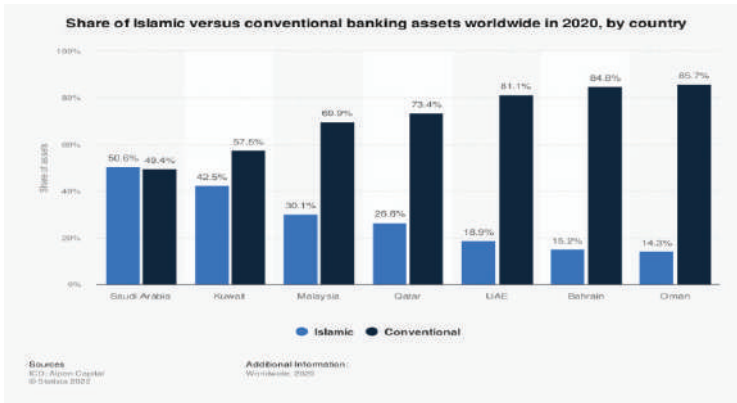
Figure 3 Share of Islamic Versus Conventional Banking Assets Worldwide in 2020, by country

The figure 3 above shows the share of islamic versus conventional banking assets worldwide in 2020 by country, it can be seen from the picture above, that the country of Saudi Arabia is the only country in the world that has islamic banking assets that are greater than its conventional bank assets. In Saudi Arabia, Islamic banks have total assets of 50.6 percent and conventional banks with 49.4 percent.

From the figure 4 above, it can be seen that the distribution of the assets of the world's largest Islamic bank is owned by banks in Saudi Arabiaiya at 28.5 percent, iran is the second ranked country with 22.1 percent and Malaysia is the third country with the largest total assets in the world at 11.4 percent. United Arab Emirates at 9.2 percent, Qatar at 6.5 percent, Kuwait at 6 percent, while Indonesia at only 2.1 percent or ranked 10th in Islamic bank asset distribution.
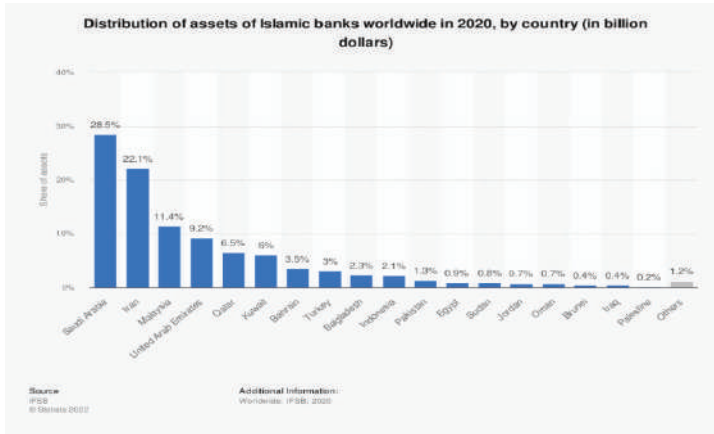
Figure 4 Disstribution of Assets of Islamic Banks Worldwide in 2020, by Country (in billion dollars)

Islamic Corporate Governance derives its name from the implementation of Shariah rules and practices within the corporate governance structure, which distinguishes it from conventional governance (ICG). In the Shariah framework, the economic dimension of a business cannot be separated from its social and ethical dimensions, and Islamic Banks and Financial Institutions (IBFIs) must maintain the Shariah's essential principles of fairness, honesty, and public interest preservation.[16].

Islamic corporate governance (ICG) is distinct in terms of Sharia governance and accounting practices with a specific emphasis on a holistic approach intrinsic to Islam, articulated through transparency, environmental concerns, the rights of stakeholders, and social justice, whereas IBs' corporate governance is comparable to conventional corporate governance in terms of its structural and functional nature. Islamic corporate governance is regarded as a result of Islamic Moral Economy (IME) since it distills the substantive morality intrinsic to Islam in relation to embracing the interests of bigger stakeholders. Implementation of Islamic principles and values in IBs solidifies their "Islamic character," hence establishing them as a distinct sector, the Islamic banking sector, within the existing capitalist financial system. However, the practice demonstrates that convincing the customers of Sharia-compliance of IBs is more essential for them than providing Sharia-compliant products and services or managing the IBs in line with the normative expectations of the Islamic corporate governance principles[17].

Islamic Economics and Finance was officially recognized as a field of study. Its primary objective was to persuade and familiarize financiers, economists, legal professionals, corporate governance experts, and politicians with Islamic economic principles. The relationship between the spiritual and material paradigms forms the basis of Islamic corporate governance (ICG). It seeks to establish a just socioeconomic system. Typically, a company focuses on increasing profit and decreasing the price of its products. Infrequently does business consideration of ethical and moral values take precedence. Religion and moral principles play a crucial role in forming and constructing an organizational culture. In addition to their moral imperative to maximize profits, businesses must also consider their stakeholders. The primary difference between conventional and Islamic corporate governance models is their respective ideologies, because, as we have seen, the conventional model is founded on rationalism and rationality, whereas the Shari'a model, anchored on the Tawhidic view, is diametrically opposed to it. The Islamic model is inevitably irrational and it is in opposition to the self-centered l'homo economicus, but the pure ideal example model to be followed is homo islamicus, who does not distinguish between material and spiritual aspirations[18].

Corporate governance is a key foundation for monitoring the corporate conduct of organizations, but it is substantially more crucial for the governance of financial institutions. This increased emphasis on governance is mostly attributable to the fact that the funds managed by various banks belong to various account holders and investors. This implies that any misbehavior on the part of the bank may have a negative impact on its stakeholders and may give rise to agency difficulties and conflicts of interest between the institution's management and individuals who have placed their faith in the organization for the better management of their finances.[19].

To guarantee Shariah conformity in all activities and procedures, Islamic banking set up Shariah Board (SB) that is seen as an internal check and balance instrument. The implementation of Shariah norms and practices in the corporate governance structure makes it distinctive from traditional governance, and consequently, this style of governance is called Islamic Corporate Governance (ICG). The function of the SB is to check that financial organizations operate in conformity with Islamic principles and values. Despite the interconnected social and ethical components of Shariah values, the present Shariah screening systems have not yet incorporated non-income concerns like social and environmental challenges[15]. Implementing Islamic corporate governance is essential for the

creation of internal anti-fraud measures for senior bank officials such as directors, management, internal auditors, and external auditors. Moreover[20]. The audit committee played a crucial role in the control of fraudulent conduct within financial accounts. Previous research has uncovered a number of instances of fraud in the absence of an audit committee[15]. This study reveals a connection between Islamic corporate governance and environmental performance. This study analyzes the theoretical connection between Islamic CG processes and the three performance characteristics of sustainability. This study indicates that Islamic CG methods have a substantial impact on sustainability performance[21].

Conclusion

With the increasing number and size of assets from Islamic banks, the implementation of Islamic corporate governance is very important to continue to be studied, as input and advice to companies that apply Sharia principles, especially Islamic banks. Implementation of Islamic corporate governance is one way that can be taken so that fraud in Islamic companies or banks can be minimized. The large number of reports of fraud in Islamic banks is certainly a record that the implementation of Islamic corporate governance is still being improved, this does not mean that Islamic banks are the same as conventional banks.

References

[1]   I. Anisykurlillah, P. Y. Jayanto, H. Mukhibad, and U. Widyastuti, "Examining the role of sharia supervisory board attributes in reducing financial statement fraud by Islamic banks," *Banks Bank Syst.*, vol. 15, no. 3, pp. 106–116, 2020, doi: 10.21511/bbs.15(3).2020.10.

[2]   A. I. M. Idiab, M. S. bin Haron, and S. B. H. Ahmad, "The organization of audit department in Islamic banks and commercial banks the description and responsibilities of internal auditor," *Aust. J. Basic Appl. Sci.*, vol. 5, no. 12, pp. 584–589, 2011.

[3]   M. N. Hosen, N. Falah, and F. Lathifah, "Analysis of Corporate Governance on Islamic Banking in Indonesia," *Ahkam J. Ilmu Syariah*, vol. 19, no. 2, pp. 247–268, 2019, doi: 10.15408/ajis.v19i2.12645.

[4]   "International Conference on Business and Technology, ICBT 2020," *Lecture Notes in Networks and Systems*, vol. 194 LNNS. 2021.

[5]   H. Mukhibad, P. Y. Jayanto, and I. Anisykurlillah, "Islamic

corporate governance and financial statements fraud: A study of islamic banks," *J. Gov. Regul.*, vol. 10, no. 2 Special issue, pp. 361–368, 2021, doi: 10.22495/JGRV10I2SIART16.

[6]   Y. Hanine, M. E. M. Malick, M. Tkiouat, Y. Lahrichi, and Y. L. Alaoui, "A New Financial Group Lending Based on Smart Contracts: An Agent-based Simulation," in *2022 International Conference on Intelligent Systems and Computer Vision, ISCV 2022*, 2022, doi: 10.1109/ISCV54655.2022.9806082.

[7]   M. Elbeck and E.-V. Dedoussis, "Arabian Gulf innovator attitudes for online Islamic bank marketing strategy," *J. Islam. Mark.*, vol. 1, no. 3, pp. 268–285, 2010, doi: 10.1108/17590831011082437.

[8]   M. Sulaiman, N. A. Majid, and N. M. Arifin, "Corporate governance of Islamic financial institutions in Malaysia," *Asian J. Bus. Account.*, vol. 8, no. 1, pp. 65–93, 2015.

[9]   T. Suryanto and R. Ridwansyah, "The Shariah financial accounting standards: How they prevent fraud in islamic banking," *Eur. Res. Stud. J.*, vol. 19, no. 4, pp. 140–157, 2016, doi: 10.35808/ersj/587.

[10]   W. N. I. W. M. Fathi, E. K. Ghani, J. Said, and E. Puspitasari, "Potential employee fraud scape in Islamic banks: The fraud triangle perspective," *Glob. J. Al-Thaqafah*, vol. 7, no. 2, pp. 79–93, 2017, doi: 10.7187/gjat122017-3.

[11]   A. A. Lubis and D. Lubis, "Factors Affecting Disclosure of Fraud in Islamic Commercial Banks in Indonesia 2014-2018," *Glob. J. Al-Thaqafah*, no. SpecialIssue, pp. 15–21, 2020.

[12]   I. Anisykurlillah, P. Y. Jayanto, H. Mukhibad, and U. Widyastuti, "Examining the role of sharia supervisory board attributes in reducing financial statement fraud by Islamic banks," *Banks Bank Syst.*, vol. 15, no. 3, pp. 106–116, 2020, doi: 10.21511/bbs.15(3).2020.10.

[13]   I. Anisykurlillah, I. Januarti, and Zulaikha, "The Role of the Audit Committee and Employee Well-Being in Controlling Employee Fraud," *J. Gov. Regul.*, vol. 11, no. 4, pp. 168–178, 2022, doi: 10.22495/jgrv11i4art16.

[14]   H. Mukhibad, P. Y. Jayanto, and I. Anisykurlillah, "Islamic corporate governance and financial statements fraud: A study of islamic banks," *J. Gov. Regul.*, vol. 10, no. 2 Special issue, pp. 361–368, 2021, doi: 10.22495/JGRV10I2SIART16.

[15]   A. A. Jan *et al.*, "Integrating sustainability practices into islamic corporate governance for sustainable firm performance: from the lens of agency and stakeholder theories," *Qual. Quant.*, vol. 56, no. 5, pp. 2989–3012, 2021, doi: 10.1007/s11135-021-

01261-0.

[16]   A. A. Jan, F. W. Lai, and M. Tahir, "Developing an Islamic Corporate Governance framework to examine sustainability performance in Islamic Banks and Financial Institutions," *J. Clean. Prod.*, vol. 315, no. June, p. 128099, 2021, doi: 10.1016/j.jclepro.2021.128099.

[17]   H. Sencal and M. Asutay, "Ethical disclosure in the Shari'ah annual reports of Islamic banks: discourse on Shari'ah governance, quantitative empirics and qualitative analysis," *Corp. Gov.*, vol. 21, no. 1, pp. 175–211, 2021, doi: 10.1108/CG-01-2020-0037.

[18]   V. Istrefi, "Corporate governance in islamic financial institutions," *J. Gov. Regul.*, vol. 9, no. 2, pp. 75–82, 2020, doi: 10.22495/jgrv9i2art5.

[19]   K. S. Bukhari, H. M. Awan, and F. Ahmed, "An evaluation of corporate governance practices of Islamic banks versus Islamic bank windows of conventional banks: A case of Pakistan," *Manag. Res. Rev.*, vol. 36, no. 4, pp. 400–416, 2013, doi: 10.1108/01409171311315003.

[20]   M. N. Hosen, N. Falah, and F. Lathifah, "Analysis of Corporate Governance on Islamic Banking in Indonesia," *Ahkam J. Ilmu Syariah*, vol. 19, no. 2, pp. 247–268, 2019, doi: 10.15408/ajis.v19i2.12645.

[21]   I. G. So, H. Haron, A. Gui, E. Princes, and S. A. Sari, "Sustainability reporting disclosure in islamic corporates: Do human governance, corporate governance, and it usage matter?," *Sustain.*, vol. 13, no. 23, 2021, doi: 10.3390/su132313023.

Study about the Reporting of Muslims through the International News Agency on the Waspada and Kompas Daily.

Effiati Juliana Hasibuan[1], Daryanto Setiawan[2], Badrul Helmi[3]

Introduction

An important aspect of the international news flow is the functioning of more than one hundred national, regional, international news agencies and the approval of news exchanges that exist in the world. There are five largest international news agencies today, namely the *Associated* Press (AP), United *Press International* (UPI) from the United States, Reuters from the United Kingdom, *Agence France Presse* (AFP) from   France and *Telegrafnoie Agenstvo Sovietskavo Soyusa* (TASS) from Russia. AP, UPI, Reuters and AFP are the dominant sources of foreign news for most North American, Western European, Asian, African and Latin American countries. [1]

The dominance of international news by four international news agencies, namely AP, UPI, Reuters and AFP is frowned upon by Third World countries, which are countries grouped by their economic conditions. Among the third world countries that are often used as objects of news are Muslim-majority countries and Socialist countries. Although they objected to being used as the object of news by the four international news agencies above, they were unique Third World Countries, still rely on Western news agencies and media. [2]

The above international news agencies move on the basis of economic interests that view that it is the interests of consumers that should come first. This tendency causes them to cover and broadcast news that suits the wishes of consumers, so it is often inconsistent with the ideology and policies of the country that will be the object of the news. [3] Islamic countries or muslim-majority populations feel often harmed by the reporting of Western news agencies. Western news agencies are considered inclined to cover negatively oriented news about Muslims; where Islam is often associated with radical groups, terrorism syndicates, violence, suicide bombing terror and so on. While the positive side is that peace-loving Islam also maintains

[1] Medan Area University, effiatihsb@yahoo.co.id

[2] As-Sunnah Islamic College of Religion Deli Serdang , daryantosetiawannew@gmail.com

[3] University of Muhammadiyah Sumatera Utara

harmony among religious people, the advancement of science by the inventors of Muslims tends to be ignored. [4]

Large-scale newspaper companies prefer news sourced from international news agencies over news stories covered by their national news agencies that provide international news services so that there is an imbalance in the news reports of local newspapers and national newspapers, both in terms of the number of news and in terms of news content[5]

This imbalance according to Galtung occurs because more information flows to the Northern countries, less flows from North to South, and the least flows to the Southern countries. This has resulted in people in Western countries knowing very little about Islam and its people, and unfortunately even that little information tends to be negatively oriented as well. Departing from this phenomenon, the author is interested in studying, researching and proving the truth of Galtung's opinion above through a study of the coverage of international news agencies about Muslims which is broadcast on the Waspada and Kompas Daily.   This research uses a quantitative approach and research techniques are content *analysis*[6]

The studies in this study are related to 1) The number of frequencies of Muslim news reports covered by international news agencies from the Waspada and Kompas daily, 2) International news agencies that report on Muslims in the Waspada and Kompas daily, 3) The most reported countries in the Waspada and Kompas daily, 4) News issues about Muslims, and 5) News orientation reported by international news agencies in the Waspada and Kompas daily.

Discussion
Theoretical Studies

Eastern countries in the 1970s, led by Indian Prime Minister Indira Ghandi, complained about the imbalance of information in the world due to the unfair flow of information *from* developed countries that have the power of more advanced communication technology, to developing countries that are less able to afford information technology. [7]

This information imbalance is supported by the results of George Gerbner's (*Dean, Annenberg School of Communication*) research on the content of 60 newspapers published in 9 countries, namely 3 capitalist countries (the United States, Britain, and West Germany), 3 socialist countries (the Soviet Union (now Russia), Hungary, and Czechoslovakia), and 3 developing countries (India, the Philippines, and Ghana). The results showed that newspapers published in capitalist countries and socialist countries exposed very

little news in developing countries. Very little news tends to be just negatively oriented things like poverty, stupidity, rebellion, murder, etc. [7]

Galtung describes three patterns of international news flow, namely:

A. *Centers-centers,* namely developed *western countries.* Here is the highest frequency of news streaming among these countries.

B. *Center-periphery,* it was, a developing *eastern countries.* there is a flow of news from developed Western countries to developing countries.

C. *Periphery-periphery,* is a flow of news between developing countries with the least amount of news flowing. [5]

According to Galtung in his theory the *Structure of Feudal Interaction* (SIF), the interweaving map and position of the Western and Eastern mass media shows that the Western mass media plays the role of the center (center), while the Eastern mass media as *the periphery* (edge) that runs *vertically*. *Periphery* countries are only used as objects of news that cause inequality in the flow of information . [3]

Then one analysis conducted by UNESCO on the international news flow through television media, showed that at least half of television programs in developing countries came from the Western world. About 75% of all of these programs, come from North America. The same situation also occurs in newspapers, radio and other mass media. [8]

According to John C. Merriel, the difference in news volumes from West to East and from East to West stems from the different concepts used by each country:

A. In the context of freedom of information flow, developed (Western) countries consider that information can freely enter other countries so that it is free to report anything.

B. Developing countries (East) consider freedom of information flow to demand a balance. If information is free to enter from West to East then information from East can also be free to enter West. The content of the information is also not only negatively oriented, but also includes positively oriented news. [7]

So far, international mass media, especially from developed countries in the Western hemisphere, have been aggressively sending

information to developing countries in the eastern world. This is all inseparable from media imperialism. To balance the onslaught of information flows, developing countries need the presence of *Information Clearing House* as part of a solution to neutralize the information biases of western countries [1]

According to Abdullah Qasim Al-Wasyli, the mass media in Eastern countries is just an extension of imperialism carried out by military force. More remarkably, colonization through this mass media (media imperialism) is actually legalized in the name of human rights,[9] as stated in article 19 of the *Universal Declaration of Human Rights* which says that everyone has the freedom to seek, receive and disseminate information or ideas through the mass media without any obstacles. This statement became the basis for the United States and its allies to fight for *News free flow*. [3]

Methodology

This research is classified as descriptive quantitative research. The populations in this study were Waspada and Kompas daily. The sampling technique uses systematic randomization, so that the two newspapers are systematically sampled 13 times each. The issue date starts from September 15, 2015 to November 15, 2015. With details of 13 publications each for Harian Waspada and 13 times for Kompas daily. Total sample are 26 publications.

The data were analyzed using the *Statistical Package for Social Sciences* (SPSS) *for Windows Version* 22 program quantitatively in the form of descriptive statistical analysis and *cross tabulation*. Then the quantitative data is interpreted and analyzed for later conclusions.

Study Results
Frequency about Muslim's news

From the two newspapers studied, namely Waspada and Kompas, 106 news headlines about Muslims were found covered by international news agencies. The newspapers that contain the most news about Islam are Kompas with 63 news titles (59.43 %), and Waspada with 43 news headlines (40.57 %), as can be seen in the following table:

Table 1. Frequency About Muslim News

No.	Newspaper Name	f	%
1	Waspada	43	40,57
2	Kompas	63	59,43
	Total	106	100

Names of News Agencies Covering

Part of the news about Muslims is covered jointly by several news agencies, and another part is covered individually by certain news agencies. The news agencies that cover the most self-coverage news about Muslims broadcast in the Waspada and Kompas newspapers are Antara (35.85 %), Combined (27.36 %), then AP and AFP (9.43 %), Reuters (7.55 %), CNN (2.83 %), and the least are the BBC, Al Arabiya News, Arab News and Xinhua (1.3 % each). The Waspada newspaper seems to use a lot of news sourced from the Antara news agency, while Kompas uses more news sourced from a combination of various news agencies. More details can be seen in the following table:

Table 2. Names of News Agencies Covering

No.	News Agency Name	Waspada	Kompas	f	%
1	AP	1	9	10	9.43
2	Reuters	3	5	8	7.55
3	AFP	1	9	10	9.43
4	Combined	-	29	29	27.36
5	BBC	2	-	2	1.89
6	Antara	28	10	38	35.85
7	Al Arabiya News	1	1	2	1.89
8	Arab News	2	-	2	1.89
9	CNN	3	-	3	2.83
10	Xinhua	2	-	2	1.89
	Total	43	63	106	100

Country of Origin News

The countries that are used as the origin of the most news are Saudi Arabia (14.15 %), the United States (9.43 %), then Indonesia and Malaysia each 7.55 %, as can be seen in the following table:

Table 3. Country of Origin News

No.	Country Name	Waspada	Kompas	f	%
1	Afghanistan	-	3	3	2.83
2	United States America	6	4	10	9.43
3	Saudi Arabia	11	4	15	14.15
4	Austria	-	1	1	0.94
5	Bangladesh	1	-	1	0.94
6	Netherlands	-	2	2	1.89

No.	Country Name	Waspada	Kompas	f	%
7	Belgium	-	1	1	0.94
8	Brazil	-	1	1	0.94
9	China	1	1	2	1.89
10	Uni Emirates Arab	1	3	4	3.77
11	Philippines	-	1	1	0.94
12	Hongkong	-	1	1	0.94
13	Indonesia	4	4	8	7.55
14	England	1	1	2	1.89
15	Irak	2	-	2	1.89
16	Italy	-	1	1	0.94
17	Kyrgyzstan	-	1	1	0.94
18	South Korea	-	2	2	1.89
19	Lebanon	-	2	2	1.89
20	Libya	-	1	1	0.94
21	Maldives	-	1	1	0.94
22	Malaysia	3	5	8	7.55
23	Egypt	1	4	5	4.72
24	Norway	1	1	2	1.89
25	Oman	-	1	1	0.94
26	Pakistan	-	2	2	1.89
27	Palestine	1	4	5	4.72
28	France	3	2	5	4.72
29	Rusia	2	-	2	1.89
30	Singapore	-	1	1	0.94
31	Slovenia	-	1	1	0.94
32	Sudan	1	1	2	1.89
33	Syriah	-	1	1	0.94
34	Turkey	1	3	4	3.77
35	Ukraine	1	-	1	0.94
36	Yemen	2	2	4	3.77
	Total	43	63	106	100

News Issues

The most news issues about Muslims are deaths (16.04 %), war and terrorism at 8.49 percent each. More details can be seen in the following table :

Table 4 News Issues

No.	News Issues	Waspada	Kompas	f	%
1	Determination of Eid al-Adha	1	-	1	0.94
2	The implementation of the hajj	5	1	6	5.66
3	Bombing	1	3	4	3.77
4	Death	11	6	17	16.04
5	Assault	-	1	1	0.94
6	War	2	7	9	8.49
7	Terrorism	5	4	9	8.49
8	Murder	1	1	2	1.89
9	Assassination plot	-	1	1	0.94
10	Israeli Palestinian conflict	-	3	3	2.83
11	Insurrection	-	1	1	0.94
12	Natural disasters	1	1	2	1.89
13	Air pollution	1	1	2	1.89
14	Standoff	-	1	1	0.94
15	Opposition	-	1	1	0.94
16	Sea disputes	1	1	2	1.89
17	Accident	1	2	3	2.83
18	Emergency security	-	1	1	0.94
19	MH17 tragedy	1	1	2	1.89
20	Refugee	-	3	3	2.83
21	Dismissal	-	1	1	0.94
22	International trade	1	1	2	1.89
23	House construction	1	-	1	0.94
24	Economics	1	4	5	4.72
25	Tourism	-	1	1	0.94
26	Aviation cooperation	-	1	1	0.94
27	Farm	-	1	1	0.94
28	Peace	1	5	6	5.66
29	Captive exchange	1	-	1	0.94
30	Political party	-	1	1	0.94
31	State visits	1	-	1	0.94
32	President's Speech	-	1	1	0.94
33	Ambassador Reception	-	1	1	0.94
34	Humanitarian aid	-	1	1	0.94
35	Compensation for crane victims	1	-	1	0.94
36		1	1	2	1.89

No.	News Issues	Waspada	Kompas	f	%
37	Appreciation	-	1	1	0.94
38	Corruption	-	1	1	0.94
39	Wedding	1	-	1	0.94
40	Inauguration of the mosque	1	-	1	0.94
41	Missile tests	1	-	1	0.94
42	Labor protection	1	-	1	0.94
43	Education	-	1	1	0.94
44	Sport	-	1	1	0.94
	Total	43	63	106	100

News Orientation

The majority of news about Muslims covered by international news agencies broadcast on the Alert and Compass Daily is negatively oriented (54.72 %). But there are also positive-oriented ones (39.62 %), the rest (5.66 %) are neutral-oriented.

Positively oriented news is generally related to the implementation of the Hajj and peace 6 titles each, economic (5 titles). Negatively oriented news stories generally relate to death (17 titles), warfare and terrorism 9 titles each.

Examples of news that are viewed as negatively oriented are: "Mina's Calamity, 717 Died; Many Perempuan and Parents Become Victims; 25 Killed in the Mosque Bombing in Sanaa; Mina's calamity repeats itself; Airstrikes Hit Wedding Venues in Yemen, 131 Killed; Clashes in Al Aqsa Enter Day ke - 2; Hundreds of Civilians Killed oleh Airstrikes; Europe's Worst Terror; Dream Buruk France" and others.

Examples of positively oriented news are: "Wukuf's Disaster Anticipation Strategy; Padati Makkah pilgrims; Access to Armina Is Closed and Heavily Guarded; The Pope Praises Your Courage to Dialogue; Indonesia is committed to increasing the number of personnel; Oman Calls for Support for UN Envoy d i Syria dan Yemen; Dubai Minati Bagan Siapi-api; Innovation is the Key to Efficiency; Denmark in The Act of Building Industry" and others. Note the following Table:

Table 5. News Orientation

No.	News Orientation	Waspada	Kompas	f	%
1	Negative	25	33	58	54.72
2	Neutral	3	3	6	5.66
3	Positive	15	27	42	39.62

No.	News Orientation	Waspada	Kompas	f	%
	Total	43	63	106	100

Many negative-oriented news stories came from Saudi Arabia (8 titles), Egypt and France with 5 titles each, and Palestine (4 titles). Meanwhile, the news that is mostly positively oriented comes from Saudi Arabia (8 titles), the United States, Arab Emirates, Indonesia and Malaysia with 4 titles each. More details can be seen in the following table:

Table 6 News Orientation By News Country of Origin

No.	Country of Origin News	Negative	Neutral	Positive	f	%
1	Afghanistan	2	-	1	3	2.83
2	United States America	2	2	4	8	7.55
3	Saudi Arabia	8	1	8	17	16.04
4	Austria	-	-	1	1	0.94
5	Bangladesh	1	-	-	1	0.94
6	Netherlands	1	1	-	2	1.89
7	Belgium	-	-	1	1	0.94
8	Brazil	-	-	1	1	0.94
9	China	-	1	1	2	1.89
10	Uni Emirates Arab	-	-	4	4	3.77
11	Philippines	1	-	-	1	0.94
12	Hongkong	1	-	-	1	0.94
13	Indonesia	3	1	4	8	7.55
14	England	-	-	2	2	1.89
15	Irak	2	-	-	2	1.89
16	Italy	-	-	1	1	0.94
17	Kyrgyztan	1	-	-	1	0.94
18	South Korea	-	-	2	2	1.89
19	Lebanon	1	-	1	2	1.89
20	Libya	-	-	1	1	0.94
21	Maldives	1	-	-	1	0.94
22	Malaysia	4	-	4	8	7.55
23	Egypt	5	-	-	5	4.72
24	Norway	-	-	2	2	1.89
25	Oman	1	-	-	1	0.94
26	Pakistan	2	-	-	2	1.89

No.	Country of Origin News	Negative	Neutral	Positive	f	%
27	Palestine	4	-	1	5	4.72
28	France	5	-	-	5	4.72
29	Rusia	2	-	-	2	1.89
30	Singapore	1	-	-	1	0.94
31	Slovenia	1	-	-	1	0.94
32	Sudan	2	-	-	2	1.89
33	Syriah	1	-	-	1	0.94
34	Turki	3	-	1	4	3.77
35	Ukraine	-	-	1	1	0.94
36	Yemen	3	-	1	4	3.77
	Total	58	6	42	106	100

Discussion

Based on the results of this study, it can be seen that the frequency of news about Muslims sourced from international news agencies broadcast on the Daily Waspada dan Kompas, an average of 4 news headlines for each issue of a newspaper, because of the 26 newspaper issues studied, there were 106 headlines about Muslims sourced from international news agencies.

The three leading international news agencies today namely AP, Reuters and AFP were used as major sources of news (including about Muslims) by the national newspapers Harian Waspada and Kompas. Meanwhile, international news agencies belonging to the Islamic world, namely the *International Islamic News Agencies* (IINA) or *Wikalah al-Anba' al-Islamiyyah al-'Alamiyyah* which was founded by Islamic countries (including Indonesia) based in Jeddah, Saudi Arabia, are not used in the Waspada and Kompas daily at all as news sources about Muslims. It seems that IINA has not been able to compete with other international news agencies, both the quantity and quality of news, as well as equipment and human resources which is professional, including in covering important events taking place in Islamic countries. As a result, many newspaper publishers and other mass media companies, including in the Islamic world, do not want to subscribe to IINA in order to meet their international news needs, so international news agencies from American and European countries remain the main suppliers of international news to newspapers in the world including Waspada and Kompas.

The problem is that these international news agencies have moved on economic as well as political grounds. So the news often

harms the third world, especially Muslims. As evidenced by the 106 news titles about Muslims sourced from the international news agency, after a content analysis study, it was found that 54.72% of the news was negative-oriented, only 39.62% were positively oriented and another 5.66% were neutral. This situation can certainly harm the countries and people who are the object of the news. Because the news can not describes the objective state of Muslims as a result of unbalanced reporting.

The international news agencies apparently covered more events that included negative issues; such as deaths from acts of violence, war, rebellion, bombing, and other forms of riots and natural disasters. Meanwhile, events that are included in the positive issue; Such as humanitarian aid, peace and development are little reported. So that it can create an impression on the public that Muslims like acts of violence and weak people so that they often become victims of oppression.

The countries that are widely covered by international news agencies are generally countries that are in turmoil due to war or due to insurgency; such as Iraq, Syria, Yemen, Afghanistan and Palestine. While the states are relatively safe; like Malaysia, Brunai Darus Salam and including Indonesia are very little reported.

From the above, it is known that international news agencies do not cover events concerning Muslims in a fair and balanced manner. The causes are the following factors:

A. Economic Inequality

With a good pace of economic growth, America and Europe became giants in the field of technology including communication technology. Thus, they can control, control and dominate the spread of news from West to East.

B. Science and Technology Gap

Modern science and technology is controlled by European and American countries, while most Islamic countries or muslim-majority populations still depend on Europe and America in the field of science and technology such as Indonesia, Saudi Arabia, Iraq, Algeria, Marokko and others.

C. Rights Gap

The framework of international law on Human Rights tends to benefit the owners and rulers of the mass media, where freedom of expression is equated with the freedom to be an agent of information, when in Islamic countries the mass media tends to be controlled and

controlled by the government. This has resulted in a weak policy of distributing news from developed countries to developing countries.

D.   Media Gap

Developed countries control the mass media of Islamic countries. As a result, Islamic countries act as users of information and sometimes even have to buy information from developed countries
.

E.   Information and Communication Gap

This gap is due to the lack of mutually beneficial relations between European/American countries and Islamic countries in the field of information and communication so that there is no justice to the interests of Islamic countries. European/American countries control and control information networks and only cover and broadcast information according to their interests.

F.   Values Gap

The difference in value systems between developed countries and Islamic countries is very detrimental to Islamic countries where the cultural and religious values adopted by developed countries are not in accordance with the cultural and religious values adopted by Islamic countries. These values are channeled through mass media, both print and electronic, including the Alert Daily and Kompas.

Conclusion

Based on the results of the research above, it can be concluded as follows:
A.   The frequency of news about Muslims covered by international news agencies broadcast on the Alert and Kompas Daily averages 4 titles for each issue.
B.   Most of the news was the result of coverage from the Antara news agency, AP, AFP, Reuters and a combination of several news agencies.
C.   The country of origin of the most news is from the countries of Saudi Arabia, the United States, Indonesia and Malaysia.
D.   The most news issues about Muslims are death, war and terrorism.
E.   The orientation of the news is generally negative, so a negative image of Muslims was built.

References :

[1]   M. Shoelhi, *Komunikasi Internasional: Perspektif Jurnalistik*. Bandung: Simbiosa Rekatama Media, 2009.

[2]   A. Deddy Djamaluddin Malik, et, *Komunikasi Internasional*. Bandung: Remaja Rosdakarya, 1993.

[3]   S. Kholil, *Komunikasi Islami*. Bandung: Cita Pustaka Media, 2007.

[4]   C. H. Philip, *The Third World and Press Freedom*. New York: Praeger Publishing, 1978.

[5]   J. G. dan R. C. Vincent, *Global Glasnost Toward A New World Information and Communication Order*. New Jersey: Hampton Press Inc., 1992.

[6]   H. Hardani *et al.*, *Buku Metode Penelitian Kualitatif & Kuantitatif*, no. March. 2020.

[7]   Hafied Cangara, *Perencanaan dan Strategi Komunikasi*. Jakarta, 2013.

[8]   C. G. Anthoni, *Unesco and the Media*. London: Longman, 1989.

[9]   A. Q. Al-Wasyli, *Al-I'lam al-Islami fi Muwajahah al-I'lam al-Mu'ashir bi Wasa'ilihi al-Mu'ashirah*. Thantha: Dar al-Basyir li al-Tsaqafah wa al-Ulum al-Islamiyyah, 1994.

Bibliometric Analysis and Curriculum Mapping

Elihamid[1]

Introduction

One thing that is very important for the mover of education as a creature created by Allah SWT who is equipped with the instinct to become a natural educator in the form of encouragement to protect, maintain and educate students as well as possible. Nurturing students to become superior, qualified, and brilliantly accomplished generations is the main goal in realizing a progressive Indonesian civilization towards society 5.0 [1]. The main challenge towards society 5.0 for the education sector is to produce competent educator candidates. Therefore, it is important to adjust the professional curriculum as well as possible. This can be realized into a golden generation through the concept of flexible-based education according to the demands of the times [2]. Quality education curriculum in learning needs to realize useful skills for students in the future. Therefore, quality education is expected in the curriculum management process based on the latest knowledge, culture to the next generation, especially students [3].

One aspect that has an influence in the industrial era 4.0 on the success of education is the independent curriculum [4]. The independent learning curriculum that is promoted by the government is one component that has a strategic role in the education system in the digital era, where it is not clear that its development is uncertain [5]. The independent learning curriculum is a system of independent learning programs to achieve institutional goals in educational institutions in the industrial era 4.0, so the curriculum plays an important role in realizing quality and superior institutions [6]. There are several transformation programs which are one of the efforts to prepare the Indonesian people and nation to be able to develop a stable democratic life in entering the current era of globalization and information. Curriculum management at the education unit or school level needs to be coordinated by the institutional leadership and assistant leadership which is developed integrally in the context of School-Based Management (SBM) and Education Unit Level

[1] Nonformal Education, Universitsy Muhammadiyah of Enrekang, email: elihamid72@gmai.com.

Curriculum (KTSP) and adapted to the vision and mission of the educational institution concerned.

Discussion

Etymologically, the curriculum comes from the Greek, namely *curir* which means runner, and curare which means a place to race [7]. So the term curriculum comes from the world of sports in Ancient Roman times in Greece, which implies a distance that must be traveled by runners from the starting line to the finish line. In Arabic, the word curriculum is usually expressed with *manhaj* which means a clear path that is traversed by humans in various fields of human life. While the educational curriculum *(manhaj al-dirasah)* in *Qamus Tarbiyah* is a set of plans and media that are used as references by educational institutions in realizing educational goals [8].

Terminologically, many experts define curriculum, among others: Curriculum is a teaching design or a number of subjects that are systematically arranged to complete a program to obtain a diploma. It is also known that the curriculum is all learning materials that must be presented in the educational process in an educational institutional system [9]. Then, the curriculum is also a number of educational, cultural, social, sports, and artistic experiences provided by the school to its students inside and outside the school with the aim of helping to develop thoroughly in all aspects and change their behavior in accordance with school goals [10]. Educational Goals. Thus, as a planning document that contains the objectives to be achieved, the content of the material and learning experiences that must be carried out by students, strategies and methods that can be developed, evaluations designed to collect information about the achievement of goals, as well as the implementation of documents designed in the form of real [8]. At any school level, the main task of the principal is to ensure that there is a good teaching program for students. Because basically the management or management of education, the focus of all its efforts lies in the digital learning process [8]. It seems clear that in essence all efforts and activities carried out in educational institutions are always directed at the success of learning outcomes [11].

The educational process needs to be implemented in curriculum administration so that curriculum planning, implementation, and evaluation run more effectively, efficiently, and optimally in empowering various learning resources, learning experiences, and curriculum components [12]. There are several functions of curriculum administration, including the following:

Improving the efficiency of the use of curriculum resources, empowering resources and curriculum components can be improved through planned and effective management, Improving equity and opportunities for students to achieve maximum results, Improving the relevance and effectiveness of learning according to the needs of students and the environment around students, effectively managed curriculum, Increase the effectiveness of teacher performance and student activities in achieving learning objectives, professional, effective, and integrated curriculum management can provide motivation to teacher performance and student activities in learning [13]. Increase efficiency and the effectiveness of the teaching and learning process, the learning process is always monitored to see the consistency between the planned design and implementation of learning and to improve the concept of community participation to help develop a more professional curriculum [14].

Educational curriculum planning must assimilate and organize information and data intensively related to the development of institution or school programs. Information and data that are the main areas are as follows: changes in the education system in Indonesia are very dynamic [15]. Our education uses an open system so that it must always adapt to changes and social dynamics that occur in society, be it political, economic, social and cultural systems [16]. Planners and curriculum development, generally react to the existence of data and information related to learning [17]. In traditional schools usually the structure of information is more than the information itself. As well as curriculum planning, namely information related to human development. Interpretation of basic human developmental knowledge to differentiate in learning theory proposed by curriculum planners [18]. As for the duties and roles of principals relating to curriculum administration, they are as follows: Preparing school plans, developing school/madrasah organizations according to needs, Leading schools, Managing school change and development, Creating a school/madrasah culture and climate that is conducive and innovative for student learning and others [19].

Bibliometric Analysis in Curriculum Management

Bibliometric analysis in curriculum management is very helpful in expanding students' understanding and applying concepts to everyday experiences by using the application to find thousands of references. Different concept activities may include, but are not limited to, additional laboratory investigations, selected readings, relevant problems, computer applications, field trips, audiovisuals and demonstrations [20]. The purpose of the application activity

through bibliometric analysis in curriculum management is to provide experiences that help organize literature concepts. The purpose of this analysis is to compare "curriculum management and students" through metada.

The process of bibliometric analysis in curriculum management and students e in order to find findings obtained from library research. Some suggestions consist of the results presented at the end of the study. The components of bibliometrics, namely: a) bibliometrics for bibliometricians, is the main domain of bibliometric research and is traditionally used as a research methodology; b) bibliometrics for scientific disciplines (scientific information), considering that researchers work scientifically oriented, their interest is very strong in their field of specialization and allows for a joint borderland with quantitative research in information retrieval; c) bibliometrics for science policy and management (science policy), is the domain of research evaluation in various research topics [21].

Bibliometric analysis is a study of bibliographic analysis of scientific activities, which is based on the assumption that a researcher carries out his research and must communicate the results to colleagues. This will provide progress and development of knowledge if researchers carry out joint activities to examine specific research topics [22]. In research, of course, requires information from the results of previous scientific works that have also been carried out by colleagues [23]. In the classical input-output model to explain the process of scientific research, publications are recommended to present the output of knowledge [24]. Almost all publications in the form of scientific articles and monographs are known as definitive statements of research results.

VosViewer is a free computer program available to visualize, and explore bibliometric knowledge maps. VOS stands for VosViewer is Visualization of Similarities. The algorithm used in this program is almost the same as Multi-Dimensional Scaling (MDS). VosViewer generated clusters are automatically displayed in color on the map. Cluster density and color can be displayed with VosViewer. The advantage of VosViewer compared to other analytical applications is that this program uses a text mining function to identify combinations of relevant noun phrases by mapping and an integrated clustering approach to examine cocitation data networks and co-occurrence. Although there are many programs for analyzing text units and matrix similarities, VosViewer's strength lies in its visualization. The program's interactive options and functions make it easy to access and explore its network of bibliometric data, such as number of citations or co-occurence relationships between key terms and concepts.

The following bibliometric analysis uses curriculum management and students to identify combinations of relevant noun phrases by mapping and an integrated clustering approach to examine the cocitation data network and co-occurrence for the keyword 'meaning of words and terms'. As follows:
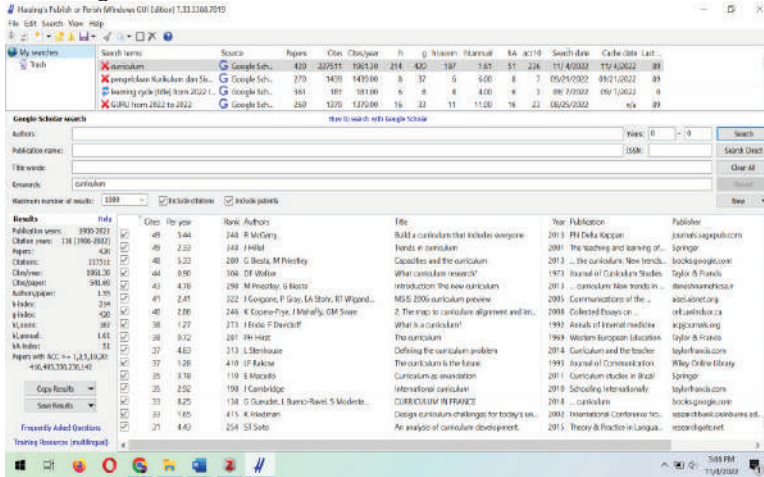
Figure 1. Publish or Perish
Contributors Of Research Results For The Keyword 'Curriculum ' Indexed By Google Scholar With A Total Of 420 Articles From 1906 To 2022.
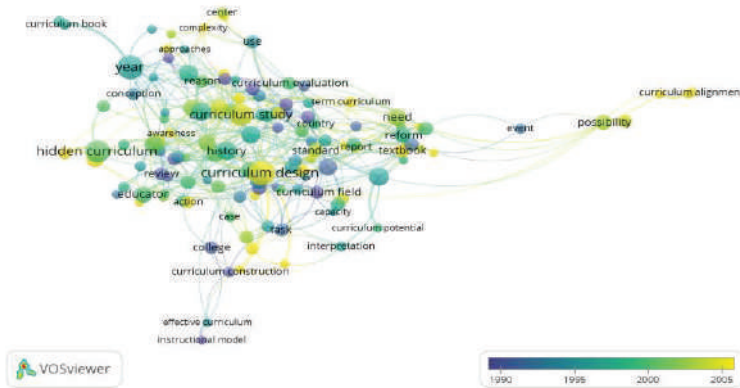
Figure 1. VOSviewer

Based on search results with keywords meaning words and terms on Google Scholar, 270 publications were obtained. From this

number, it is known that national publications on the keywords "curriculum " are mostly published in 1906 to 2022. There are 131 items with 12 cluster.

Conclusion

The process as one of the limits of understanding is meant by the implementation of curriculum management which is the implementation of educational programs. In the implementation of teaching in the classroom, the teacher pays attention only to the interaction of the teaching and learning process. However, the physical, room and classroom activities did not go unnoticed. Instead, they began to enter the study room. There are two curriculum management activities carried out by teachers at the time of lesson implementation, namely: a) filling out class books or progress books and b) recording student difficulties which are called tutoring books. The student progress book or often also called the class book is a book used to record the progress of the implementation of lessons. This book can be placed on the teacher's desk and filled in by the teacher or who is shown about matters relating to the implementation of the lesson. This tutoring book is filled in by the teacher while teaching, things experienced by individuals or groups as well as classical and solutions that have been tried. This note is very important to improve the way of teaching for the future new for a similar case.

References

[1]   A. Abdallah, "Exclusivism and Radicalism in Schools: State Policy and Educational Politics Revisited," *Studia Islamika*, vol. 23, pp. 625–632, 2016, doi: 10.15408/SDI.V23I3.4425.

[2]   O. Akir, T. H. Eng, and S. Malie, "Teaching and Learning Enhancement Through Outcome-Based Education Structure and Technology e-Learning Support," *Procedia - Social and Behavioral Sciences*, vol. 62, pp. 87–92, 2012, doi: 10.1016/J.SBSPRO.2012.09.015.

[3]   S. Agarwal and D. Roth, "Learning a Sparse Representation for Object Detection," 2002, doi: 10.1007/3-540-47979-1_8.

[4]   L. Akhmadeeva, M. Hindy, and C. J. Sparrey, "Overcoming Obstacles To Implementing An Outcome-Based Education Model: Traditional Versus Transformational Obe," 2013, doi: 10.24908/PCEEA.V0I0.4913.

[5]   G. Almalki and N. Williams, "A Strategy to Improve The Usage of ICT in The Kingdom of Saudi Arabia Primary School," *International Journal of Advanced Computer Science and Applications*, vol. 3, 2012, doi: 10.14569/IJACSA.2012.031007.

[6]   K. Anwar, M. Muspawi, S. I. Sakdiyah, and H. Ali, "The Effect of Principal's Leadership Style on Teachers' Discipline," 2020, [Online]. Available: https://www.semanticscholar.org/paper/2ec8402d693b9cb4 bf4feeeec605210539753c3b

[7]   M. Ramdhani, D. Jamaluddin, and H. Ainissyifa, "Building moderate attitude through character education," 2015, [Online]. Available: https://www.semanticscholar.org/paper/9f1a23770463f182 d2e93402c7032b35a449e550

[8]   A. Sánchez-García and A. B. Cabello, "An Instrument for Measuring Performance in Geometry Based on the Van Hiele Model.," *Educational Research Review*, vol. 11, pp. 1194–1201, 2016, doi: 10.5897/ERR2016.2801.

[9]   O. Lestari, G. Priscylio, J. Copriady, and B. Holiwarni, "The use of quartet card game on hydrocarbon to improve learning outcomes ten-grade students," 2020, doi: 10.1088/1742-6596/1567/3/032096.

[10]   C. Arumsari, N. H. A, and F. N. Isti'adah, "The Ideal Character of Students Based on Moral Values in Short Movie Videos," *Journal of Physics: Conference Series*, 2019, doi: 10.1088/1742-6596/1179/1/012097.

[11]   C. Watagodakumbura, "Principles of Curriculum Design and Construction Based on the Concepts of Educational Neuroscience," *Journal of Education and Learning*, vol. 6, pp. 54–69, 2017, doi: 10.5539/JEL.V6N3P54.

[12]   R. Kaymakcan and H. Meydan, "Values in the Curricula of Religious Education and Social Studies in Primary Schools in the Context of Local-Universal Dilemma*," *Kuram Ve Uygulamada Egitim Bilimleri*, vol. 12, pp. 1588–1591, 2012, [Online]. Available: https://www.semanticscholar.org/paper/6e0f89f970a93287 861672c1036e0b4cac97aed4

[13]   I. Syarif, M. J. Mahyuddin, H. Sura, and E. E. Baharuddin, "Using Moodle Learning Management System in Teaching from Distance Learning to the E-learning 5.0 of New Technology," *Journal of Physics: Conference Series*, vol. 1933, 2021, doi: 10.1088/1742-6596/1933/1/012124.

[14]   Y. Arti and J. Ikhsan, "The profile of Junior High School students' critical thinking skills and concept mastery level in local wisdom based on outdoor learning," 2020, doi: 10.1088/1742-6596/1440/1/012105.

[15]   Tumiran, F. Rahmadi, and M. Y. Harahap, "Analysis of Managerial Model Principals Elementary School In Medan(Perspective Student Character in Islamic Studies)," 2020, [Online]. Available: https://www.semanticscholar.org/paper/3939a20b27a41a6 1ba3fd7a5e5536d53e22ea79d

[16]   S. S. Dy and A. Ninomiya, "Basic Education in Cambodia: The Impact of UNESCO onPolicies in the 1990s," *Education Policy Analysis Archives*, vol. 11, p. 48, 2003, doi: 10.14507/EPAA.V11N48.2003.

[17]   M. Fanselow, "Neural organization of the defensive behavior system responsible for fear," *Psychonomic Bulletin & Review*, vol. 1, pp. 429–438, 1994, doi: 10.3758/BF03210947.

[18]   Z. Akyol and D. Garrison, "The Development of a Community of Inquiry over Time in an Online Course: Understanding the Progression and Integration of Social, Cognitive and Teaching Presence.," *Journal of asynchronous learning networks*, vol. 12, pp. 3–22, 2008, doi: 10.24059/OLJ.V12I3.66.

[19]   E. Elihami, "Developing the Nonformal Education of Learning in Muhammadiyah University Of Enrekang," 2020, [Online]. Available: https://www.semanticscholar.org/paper/862e345ac913d311 1a23415d544f949dc6060af9

[20]   W. Balch, "A Referential Communication Demonstration Versus a Lecture-Only Control," *Teaching of Psychology*, vol. 41, pp. 213–219, 2014, doi: 10.1177/0098628314537970.

[21]   E. Herrera-Viedma, M. A. Martínez, and M. Herrera, "Bibliometric Tools for Discovering Information in Database," 2016, doi: 10.1007/978-3-319-42007-3_17.

[22]   S. Abu-Rabia, "The Effect of Arabic Vowels on the Reading Comprehension of Second- and Sixth-Grade Native Arab Children," *Journal of Psycholinguistic Research*, vol. 28, pp. 93–101, 1999, doi: 10.1023/A:1023291620997.

[23]   S. M. Alavi and M. Taghizadeh, "Cognitive Presence in A Virtual Learning Community: An EFL Case," *International Journal of e-Learning and Distance Education*, vol. 27, p. 1, 2013, [Online]. Available: https://www.semanticscholar.org/paper/926fae860e2ff10d5 25cc244fa7738f045959b6b

[24]   T. Pettigrew and L. R. Tropp, "A meta-analytic test of intergroup contact theory.," *Journal of personality and social psychology*, vol. 90 5, pp. 751–83, 2006, doi: 10.1037/0022-3514.90.5.751.

The Analysis of Teacher Competency in the Era of Society 5.0

Emilda Sulasmi[2]

Introduction

The end of Covid-19 has turned the pandemic into an endemic, resulting in a meaningful lesson for our lives. The Covid-19 pandemic inevitably marks the start of a technology-based lifestyle, where the majority of activities are carried out online (Alifia & Pradipta, 2021). This era is called the Era of Society 5.0 with digital-based life [3], [4].

Education is among the most impacted areas. Teachers used to think that technology is away far from conventional classrooms, but are enforced to implement online teaching whilst performing whole education that covers both pedagogical content knowledge and character education [5]–[7].

In the teaching and learning process, teachers not only transfer knowledge but also explain its use to the students. They have to be capable of adapting teaching methods to subject matter, crafting materials that suit students' different abilities, activating students' learning, bringing about holistic understanding, and being a role model. In other words, it is not enough for teachers to transfer knowledge verbatim, they have to explore beyond the meaning and relate the given knowledge to the students' world [5]–[9]. Teachers must be able to connect lessons with student needs and formulate achievable learning objectives. By so doing, the transferred knowledge will also form students' personalities.

A professional teacher has both ability and expertise in educating and is also well-educated and trained. They must master various teaching strategies and techniques as evidence of their educational foundations as stated in teacher competence [10], [11].

There are six domains of competence. The first is *knowledge* which includes cognitive awareness. In this case, a knowledgeable teacher can identify learning needs and carry out learning based on the identified needs. The second, *understanding*, covers individual cognitive and affective minds where a teacher must understand students' characteristics and conditions before effective learning. Third, the *ability* is a must-have for a teacher to successfully execute

[2] University Muhaammadiyah North Sumatera,
emildasulasmi@umsu.ac.id

the assigned work. For instance, teachers must be able to craft useful teaching aids to create a convenient learning atmosphere.

Fourth, a teacher should have a *value,* which refers to the standard of behaviour that is psychologically internalised within an individual. Teachers with value, for example, will show honesty, openness, and democracy. The fifth domain is an *attitude* that is resulted from feelings or reactions to an external stimulus. Among the external stimulus are educators' reactions to the economic crisis, salary increases, and others. Last, *interest* closely relates to teachers' tendency to do something, for example, a learning or teaching interest.

Nevertheless, in this so-called Era of Society 5.0, many teachers are struggling in integrating the aforementioned domains into digital teaching [12]–[14]. In line with the global challenges, teachers' roles and responsibilities today are increasingly complex, requiring teachers to constantly make various improvements and adjustments to show their competencies. Inevitably, teachers are demanded to be dynamic, constantly developing creativity to keep up with the student's world. Teachers are no longer the most well-informed person in the classroom, and often, not even smarter than their digital-native students. Hence, if they do not master both mechanisms and patterns of information dissemination, their professionalism is in doubt.

Discussion

Teacher competence includes pedagogic, personal, social, and professional competence obtained through professional education. These four competencies reflect teachers' skills in mastering knowledge, showing positive personality traits, being involved with the community, and performing the job effectively. Teachers must understand the nature of teaching whilst understanding educational theories and be able to implement them. These demands require teachers' carefulness in carrying out duties and being reflective to assess their flaws.

Competence

Competence is an ability that describes one's qualifications. It is both knowledge and skills of an individual, which have become part of himself where one can carry out acceptable cognitive, affective and psychomotor behaviours [14]–[16].

More than content knowledge, skills, and attitudes, competence also relates to the application of those three dimensions. It has been mentioned that competence is inextricable from an individual's capacity to accomplish various tasks in a job.

A teacher's competence reflects his teaching quality. It is manifested in the form of knowledge mastery and professionalism to fully function as a teacher. A teacher's competence is obtained through formal education or experience.

Accordingly, an individual's competence is formed by two factors, namely, intellectual and physical ability. Intellectual ability relates to mental activities, while physical ability relates to tasks performance that requires stamina, dexterity, strength, and skills [8], [14]–[17].

Teachers' Professional Competence

Teachers' professional competence comprises three dimensions, namely, learning management, potential development, and academic mastery. In addition to the set of knowledge needed in each dimension, as a whole person, a teacher must show a positive attitude and personality that support their potential. Another expert states that teacher competence includes four dimensions, namely, learning management; potential development; academic mastery; and personality attitudes. These two notions similarly concur with the competency standards that cover lesson plan preparation; teaching and learning activities; assessment of student achievement; follow-up of assessment; professional development activities; holistic understanding of educational insights; and knowledge mastery of subject matter [9], [18].

In addition, teachers must also master educational foundations; management of learning interactions; assessment of student achievement; performing guidance and counselling services; carrying out school administration duties; and having an in-depth understanding of principles and interpretation of educational research for teaching purposes.

Meanwhile, the teacher competency domains include performance, knowledge, skills, processes, adjustments and attitudes, values, and appreciation. Performance relates to visible behaviour; teaching relates to competence in knowledge mastery; professional relates to educational and teaching theories mastery, principles, strategies, and techniques; process relates to the implementation of teaching competencies; adjustment relates to the adaptation of personal characteristics; attitudes relate to values and feelings [7], [9], [18]–[20].

It can be summarized from the explanation above that teachers' professional competence is the abilities, skills, and knowledge obtained through the process of teacher education, training and development and the like where one can be declared as a

competent teacher. This professional competence is reflected through knowledge mastery or subject matter taught broadly and deeply. Teachers must also understand the sciences related to education, such as educational philosophy and psychology, didactic methods, teaching planning and management, and educational evaluation of learning models and methods. As for educator characteristics, they must be attentive and enthusiastic about students' development, can communicate well to convey the subject matter and be enthusiastic about research and its implementation.

In this digital era, these competencies must be coupled with digital abilities so that teachers can execute effective modern learning processes. Hence, what is conveyed and used as assignments follow the situations in the era of Society 5.0 [2], [21], [22].

Teachers' professional competence today thus refers to their ability and also an *authority* in carrying out their teaching profession. He must perform mastery of knowledge, skills, values and attitudes reflected in the habits of thinking and acting in their everyday practice.

Conclusion

Education quality is a lifelong endeavour within the progressive educational process. It can be realised through learning quality improvement, in which the efforts are conveyed through qualified educators. Quality education can only be achieved if teachers can both understand and adapt to the given conditions. The current era of Society 5.0 is all digital-based and calls for improve teacher competence with digital learning abilities. All in all, teacher competence must be possessed to deliver effective modern education that also concurs with the learning objectives.

A. References

[1]   "E-Learning effective during the Covid-19 era," *İlköğretim Online*, vol. 20, no. 2, 2021, doi: 10.17051/ilkonline.2021.02.20.

[2]   Z. Alifia and T. R. Pradipta, "Analisis Motivasi Belajar Matematika Siswa dalam Penerapan Edmodo di Masa Pandemi COVID-19," *J. Cendekia J. Pendidik. Mat.*, vol. 5, no. 2, 2021, doi: 10.31004/cendekia.v5i2.591.

[3]   R. K. Dewi, "INNOVATION OF BIOCHEMISTRY Learning In Welcoming The Super Smart Society 5.0 Era," *INSECTA Integr. Sci. Educ. Teach. Act. J.*, vol. 2, no. 2, 2021, doi: 10.21154/insecta.v2i2.3507.

[4]   H. Jamil and N. Agung, "Tantangan Pembelajaran Bahasa Arab

Di Era Society 5.0: Analisis Pembelajaran Bahasa Arab Berbasis Aplikasi Interaktif," *Alibbaa' J. Pendidik. Bhs. Arab*, vol. 3, no. 1, 2022, doi: 10.19105/ajpba.v3i1.5536.

[5]   A. M. 'Adlimah, "Implementasi Model Pembelajaran Konstruktivisme Dalam Meningkatkan Hasil Belajar Siswa Dalam Pendidikan Agama Islam Pada Kompetensi Dasar Beriman Kepada Qada Dan Qadar Berbuah Ketenangan Hati," *POTENSIA J. Kependidikan Islam*, vol. 5, no. 2, p. 219, 2020, doi: 10.24014/potensia.v5i2.6628.

[6]   A. Apriana and D. Hidajat, "Analysis of Google Classroom's Online Learning Motivation on Mathematics Subjects," *J. Math. Pedagog.*, vol. 2, no. 1, 2020.

[7]   A. Gutiérrez-Martín, R. Pinedo-González, and C. Gil-Puente, "ICT and Media competencies of teachers. Convergence towards an integrated MIL-ICT model," *Comunicar*, vol. 30, no. 70, 2022, doi: 10.3916/C70-2022-02.

[8]   A. S. S. Ratnasari, D. Panjaitan, D. Lesmana, and ..., "Upaya Peningkatan Kualitas Pendidikan Melalui Riset Penggalian Sumber Daya," *Proc. UIN Sunan Gunung Djati Bandung*, vol. 1, no. 58, 2021.

[9]   W. Sopandi, "The quality improvement of learning processes and achievements through the read-answer-discuss-explain-and create learning model implementation," *Proceeding 8th Pedagog. Int. Semin. 2017 Enhanc. Pedagog. Cult. Divers. Towar. Excell. Educ.*, vol. 8, no. 229, pp. 132–139, 2017.

[10]   Y. Yufita, H. Sihotang, and W. Tambunan, "Peningkatan Kompetensi Pedagogik melalui Pelatihan Teknologi Informasi Komunikasi dan Pendampingan Kepala Sekolah pada Masa Pandemi Covid-19 di Sekolah Dasar," *EDUKATIF   J. ILMU Pendidik.*, vol. 3, no. 6, 2021, doi: 10.31004/edukatif.v3i6.1283.

[11]   N. Simonović, "Teachers' Key Competencies for Innovative Teaching," *Int. J. Cogn. Res. Sci. Eng. Educ.*, vol. 9, no. 3, 2021, doi: 10.23947/2334-8496-2021-9-3-331-345.

[12]   E. Maryati, "Peran Kepemimpinan Kepala Sekolah Dalam Menyiapkan Sekolah Untuk Menyongsong Masyarakat 5.0," *Pros. Semin. Nas. Pendidik. Progr. Pascasarj. Univ. pgri palembang 10 januari 2020*, 2020.

[13]   M. C. Zaragoza, J. Díaz-Gibson, A. F. Caparrós, and S. L. Solé, "The teacher of the 21st century: professional competencies in Catalonia today," *Educ. Stud.*, vol. 47, no. 2, 2021, doi: 10.1080/03055698.2019.1686697.

[14]   T. Bariu, X. Chun, and A. Boudouaia, "Influence of Teachers'

Competencies on ICT Implementation in Kenyan Universities," *Educ. Res. Int.*, vol. 2022, 2022, doi: 10.1155/2022/1370052.

[15] A.-F. Abrar and I. Syahputra, "The Influence of English Teachers' Competency on Students' Learning Achievement," *Proceeding Int. Conf. Lang. Pedagog.*, vol. 1, no. 1, 2021, doi: 10.24036/icolp.v1i1.15.

[16] K. Imara and F. Altinay, "Integrating education for sustainable development competencies in teacher education," *Sustain.*, vol. 13, no. 22, 2021, doi: 10.3390/su132212555.

[17] I. T. Maulana, R. Darwas, R. Rahimullaily, and S. R. Ningsih, "Peningkatan Kualitas Pendidikan di Daerah Terpencil Melalui Pelatihan dan Penerapan IPTEKS," *ETHOS J. Penelit. dan Pengabdi. Kpd. Masy.*, vol. 8, no. 2, 2020, doi: 10.29313/ethos.v8i2.5966.

[18] I. Ithnain and K. Saidin, "The effectiveness of professional development model in enhancing teachers' competencies," *Malaysian Online J. Educ. Manag.*, vol. 9, no. 4, 2021.

[19] S. Alifah, "Peningkatan Kualitas Pendidikan Di Indonesia Untuk Mengejar Ketertinggalan Dari Negara Lain Education in Indonesia and Abroad : Advantages and Lacks," *CERMIN J. Penelit.*, vol. 5, no. 1, 2021.

[20] N. M. Donato, "The Relationship of the Strategies and Practices of the School Heads and Master Teachers and Teachers' Competencies and Skills in the New Normal," *Int. J. Theory Appl. Elem. Second. Sch. Educ.*, vol. 3, no. 2, 2021, doi: 10.31098/ijtaese.v3i2.665.

[21] S. B. Dito and H. Pujiastuti, "Dampak Revolusi Industri 4.0 Pada Sektor Pendidikan: Kajian Literatur Mengenai Digital Learning Pada Pendidikan Dasar dan Menengah," *J. Sains dan Edukasi Sains*, vol. 4, no. 2, 2021, doi: 10.24246/juses.v4i2p59-65.

[22] I. Hermawan, S. Supiana, and Q. Y. Zakiah, "Kebijakan Pengembangan Guru di Era Society 5.0," *JIEMAN J. Islam. Educ. Manag.*, vol. 2, no. 2, 2020, doi: 10.35719/jieman.v2i2.33.

Exposure of Infrared Rays to the Growth of *Escherichia Coli Causes* Diarrhea

Emillia Devi Dwi Rianti, Agusniar Furkani Listyawati, Putu Oky Ari Tania

Introduction

Acute diarrhea are common in children and adults. The condition is describe as defecating with unformed or watery stools and the acute onset of three or more in 24 hours [1]. According to [2] diarrhea is a world problem, in 2018 in the toddler age group, the prevalence of diarrhea in Indonesia was 12.3%. The incidence of diarrhea lead to poor nutritional status and growth failure resulting in permanent weight loss due to loss of fluids to dehydration. The incidence of diarrhea includes 2 types, namely acute and chronic diarrhea [2].

Sudden loss of Fluids and electrolytes causes various complications such as dehydration, hypovolemic shock, organ damage and even coma. One of the factors causing the incidence of diarrhea in Indonesia is poor sanitation and environmental hygiene [3].

Diarrhea in developing countries mostly caused by infection of pathogenic bacterium *Escherichia coli*. *Escherichia coli* are pathogenic if they are not in their habitat, have the ability to produce toxins that cause disease [4]. The activity of bacteria can be inhibited or even growth of bacteria can be stopped. One of method that act as antibacterial is infrared rays [5] through the process of heat generated. Infrared rays are electromagnetic waves resolves within frequency 300 GHz to 40,000 GHz [6].

Discussion

Infrared rays are electromagnetic waves, with a wavelength of 700 nm and 1 mm, it define that infrared is included in invisible light. The light of infrared is not visible, but the heat radiation generated can be felt. Based on (Tanaka, 2013) that more than half of the sun's energy consists of near infrared. Infra red has three kinds, Near infrared (NIR) 0.75 – 1.5 m, Mid infrared (MIR) 1.50 – 10 m, Far infrared (FIR) 10 – 100 m, and in this case NIR is used for health therapy and in the field of imaging technology [8].

Infrared rays are included in electromagnetic waves and are in have the frequency range of 300 GHz to 40,000 GHz. Infrared light is produced by processes within molecules and hot objects. Infrared according to is electromagnetic radiation of a wavelength that longer

than visible light, but shorter than microwave radiation. It has long been known that hot objects due to atomic and molecular activity (vibrations) in infrared are thought to emit heat waves in the form of infrared rays. Infrared rays are often called heat radiation. In the health sector founded that radiant heat of infrared rays to the body's organs will describe condition on the health of these organs. Infrared rays are useful for doctors in diagnosis and making decisions according to the patient's condition [1]. Moreover, the study found that infrared may act as antibacterial.

In the body, *Escherichia coli* lives as an opportunistic normal flora in the digestive tract. The number of *Escherichia coli* within normal limits will be beneficial, but if the number exceeds normal it will become pathogenic (Faridah et al., 2020). Pathogenic *Escherichia coli* is divided into strains that cause disease in the digestive tract, as well as strains that have the ability to infect outside the intestine[3]. *Escherichia coli* are Gram-negative bacteria with a protective cell wall layer or peptidoglycan that is easily destroyed when exposed to high temperatures. The colonies of *Escherichia coli* has a smaller size than the common bacterial colonies. Exposure to infrared rays with higher temperatures can interfere the growth of *Escherichia coli* which result in the growth is not optimal.

Escherichia coli bacteria belong to the family Enterobacteriaceae, gram negative with facultative anaerobes. Microscopic morphology is a short rod (coliform), has a petritic flagellum, with a cell size of $0.4\mu m–0.7m$ x $2.4\mu m$ (Faridah et al., 2020). These bacteria do not have spores, are opportunistic pathogens that always increase their resistance to antibiotics [4].

Lately, reported by the researchers that *Escherichia coli* has loss sensitivity to many antiiotics. Several antibiotics including amoxicillin and cefuroxime have reduced activity against *Escherichia coli* (Esti & Rosandria,2021), whereas it was reported that in Urinary tract infection (UTI) patients in South India, showed increased resistance to ciprofloxacin (Mandal et al.,2010). Several studies showed that *Escherichia coli* resistance to Antibiotic from food sources can spread to humans, colonize in the intestines and have the potential to cause infections, generally urinary tract infections (UTIs) [7], in addition causing bloodstream infections, food-borne infections, and meningitis in infants [8]. Some strain of *Escherichia coli* can become pathogenic and could contribute to biofilm formation [9].

Conventional antibacterial therapy with antibiotic especially against pathogenic *Escherichia coli* could be unsuccessful. Therefore, approach in physical stimulation promising to be developed. These strategies have a broad spectrum and highly effective to inhibit and

stop the growth of bacteria both normal or multidrug-resistant (MDR) bacteria [10]. Infrared is a method using physical stimulation to works with their function.

Research conducted by (Rianti,2021) explained that the use of infrared exposure at distance of 1 cm, 2 cm and 3 cm for 20 minutes against *Escherichia coli* growth with the number of colonies as the indicator, showed that the number of *Escherichia coli* colonies was decline within the groups (p value = 0.000) which indicated that there was an effect of exposure to infrared rays on growth of *Escherichia coli* colonies. Research conducted by Listyawati [9] showed that the ability of Near infrared to inhibit of *Escherichia coli* growth has a potential effect by using variations of exposure time. In this study, time variations of infrared exposure are 20 minutes, 30 minutes and 35 minutes. The results showed that the number of *Escherichia coli* colonies with infrared exposure for 35 minutes is the lowest number, and significantly different with the other infrared exposure time.

According to previous research showed that exposure of infrared for the number of colonies of *Escherichia coli* with the variations of distance and time shows difference on the number of *Escherichia coli* colonies. infrared rays has the characteristics of being easily absorbed by organic materials. *Escherichia coli* with a peptidoglycan layer will be more easily destroyed by infrared exposure, because the organic materials in the bacteria will quickly absorb exposure to infrared light, so that the temperature of the bacteria will rise. This was stated by et (Rianti,2021) in a study with infrared exposure at a wavelength of 940 nm that can affect bacterial growth, and produce endogenous porphyrins, which are light-absorbing and photosensitizing molecules [6].

Bacterial cells are excited to generated heat on the surface under light irradiation, aftermath the bacterium attached on the surfaces are killed by local hyperthermia. High temperature will destroy the bacterial rapidly by damaged their protein. Besides, photo-electrons are captured by environmental oxygen atoms and produce radical oxygen species (ROS) which killed the bacterial by protein oxidation and destroyed their membrane [12].

In general, light has the property of being able to damage the cells of microorganisms that do not have photosynthetic pigments. Cell damage and inhibition of microorganism growth can be caused by ultraviolet, infrared, X-ray and gamma rays [5]. Infrared rays are found in sunlight by 80%, and the wavelength is 4-1000 micrometers. Infrared rays generate heat, and that heat can be absorbed and reused [10].

According to in a study using ultraviolet light for the growth of Enterotoxigenic *Escherichia coli*, it was shown that bacterial growth was influenced by the distance of ultraviolet intensity. The results obtained show that the closer the distance of ultraviolet intensity, the greater the death rate of bacteria [5].

It was explained in research [10] that infrared cause heat radiation that can be felt within low frequency. Infrared rays can generate heat, and then the heat can be absorbed for further reused. It is clearly concluded that the infrared exposure inhibiting *Escherichia coli* by generating heat. Peptidoglycan properties in *Escherichia coli* is easily destroyed when exposed to high temperatures or heat. *Escherichia coli* is one of the causative agents of infection, and these bacteria are commensal bacteria or normal flora in the peritoneum or lower intestine. *Escherichia coli* is one of the pathogenic bacteria which causes diarrhea symptoms [11].

Diarrhea is one of the environmental-based diseases which means that the low level of sanitation will reduce the quality of life of the community. The word sanitation is a condition that affects health, such as disposal management of feces in humans and infections that are specifically related to drainage, sewage and garbage originating from households. The important role of sanitation is to create a healthy environment and prevent various environment diseases . Bad social behavior and poor environmental conditions seems to contribute on a person's susceptibility to diarrhea.

The state of health that is influenced by environmental conditions is influenced by toilet, garbage and drainage conditions. Healthy toilet fulfill the specified requirements, such as having a distance more than 10 meters from a water source, therefore the water source will be protected from dirt pollutants, free from odors and not polluting the ground surface. The most important thing is that the condition of the toilet that does not meet the requirements will pollute the environment with human waste and become a medium for transmission of pathogenic microorganisms that cause diarrhea.

Environmental factors that can cause diarrhea are garbage disposal places and drainage conditions. Based on [12] explained that waste is related to the incidence of diarrhea, and public health. This is caused by the condition of the waste contains microorganisms that cause disease and insects as vectors. Therefore, waste must be managed properly so have the minimum probability to disturbing and threatening health in society. Another factor that causes diarrhea is the condition of the sewage drainage channel, because it cause water pollution from the surface or ground water that used for daily needs by the community.

[13]said that weather have a significant effect on the incidence of diarrhea, with differences factors such as temperature, rainfall, and humidity affecting the host resistance, virulence, and transmission of pathogens as well as changes in microbial exposure patterns [13]. The temperature causes diarrhea is varied, because each pathogen i has a different sensitivity to changes in temperature and humidity. Pathogenic bacteria that cause diarrhea have range temperature of 4°C - 45°C with an optimal temperature of 37°C, especially *Escheria coli*. In *Escherichia coli* capable of fermenting lactose by producing gas. The optimum temperature for growth is 37^0 – 42^0C. These bacterial colonies can survive for several weeks in culture storage at room temperature and can live for several months in soil and water [6]. The occurrence of high rainfall intensity increase the risk of diarrhea cases, because flood contaminate the water supply system easily.

Sunlight is very necessary to prevent diarrhea, because natural lighting reduces humidity [14]. Some bacteria will die within 15 – 20 minutes at 60°C [6]. Sunlight is a source of energy and radiation. The sunlight radiation to the earth is influenced by the distance, the intensity of radiation from the sun [14]. The sun radiationis a natural radiation. Irradiation can be applied in various fields, such as sterilization, medicine, industrial chemistry, security, agriculture, and food. Irradiation is a method that applies electromagnetic waves, with the aim of reducing losses due to damage and decay. Irradiation can kill microorganisms that directly attack the DNA so that microorganisms cannot reproduce and can cause death for microorganisms.

Escherichia coli as the agent of diarrhea can be overcome by exposure to infrared which is electromagnetic waves and sunlight as well as electromagnetic waves. So that exposure to electromagnetic waves can inhibit the growth of *Escherichia coli* and prevent diarrhea.

Conclusion

Escherichia coli are Gram-negative bacteria have a protective cell wall layer or peptidoglycan layer that easily destroyed by high temperatures. *Escherichia coli* is pathogenic bacteria that cause diarrhea symptoms. Diarrhea is an environmental-disease, low level of sanitation will reduce the quality of community life. Infrared exposure with high temperatures can interfere the growth of *Escherichia coli* lead to suboptimal bacterial growth.

Reference

[1] K. Bashar *et al.*, "Role of far infra-red therapy in dialysis arterio-venous fistula maturation and survival: Systematic review and meta-analysis," *PLoS One*, vol. 9, no. 8, Aug. 2014, doi: 10.1371/journal.pone.0104931.

[2] H. D. Faridah, E. K. Dewi, F. Fatimah, and M. Helmi, "A Review of Antimicrobial Resistance (AMR) of Escherichia coli on Livestock and Animal Products: Public Health Importance," *Sys Rev Pharm*.,Vol.11.No.11,pp:1210-1218,2020,Available: https://www.researchgate.net/publication/347423745

[3] A. H. Issa, A. A. Almayah, and H. K. Ibrahim, "New virulence factor of normal Flora E. Coli," *Systematic Reviews in Pharmacy*, vol. 11, no. 2, pp. 71–76, 2020, doi: 10.5530/srp.2020.2.12.

[4] N. Jan, S. U. Meshram, A. Kulkarni, and D. M. P. Deo, "Plasmid profile analysis of multidrug resistant E. coli isolated from UTI patients of Nagpur City, India," *Romanian Biotechnological Letters.,* Vol. 14, No. 5, 2009, pp. 4635-4640 2009.

[5] D. Esti and A. Rosandria, "Pengaruh Penggunaan Matras Elektromagnetik Terhadap Toleransi Glukosa Darah Tikus Putih (Rattus Novergicus) Diabetik Tipe II, *Skripsi : Program Studi S-1 Biologi Departemen Biologi* Fakultas Sains Dan Teknologi Universitas Airlangga Surabaya 2012

[6] J. Mandal, N. Srinivas Acharya, D. Buddhapriya, and S. Chandra Parija, "Antibiotic resistance pattern among common bacterial uropathogens with a special reference to ciprofloxacin resistant Escherichia coli."

[7] N. O. Eltai *et al.*, "Prevalence of antibiotic resistant Escherichia coli isolates from fecal samples of food handlers in Qatar," *Antimicrob Resist Infect Control*, vol. 7, no. 1, Jun. 2018, doi: 10.1186/s13756-018-0369-2.

[8] A. Shrestha *et al.*, "The Resistance Patterns in E. coli Isolates among Apparently Healthy Adults and Local Drivers of Antimicrobial Resistance: A Mixed-Methods Study in a Suburban Area of Nepal," *Trop Med Infect Dis*, vol. 7, no. 7, Jul. 2022, doi: 10.3390/tropicalmed7070133.

[9] V. Ballén, V. Cepas, C. Ratia, Y. Gabasa, and S. M. Soto, "Clinical Escherichia coli: From Biofilm Formation to New Antibiofilm Strategies," *Microorganisms*, vol. 10, no. 6. MDPI, Jun. 01, 2022. doi: 10.3390/microorganisms10061103.

[10] Q. Han, J. W. Lau, T. C. Do, Z. Zhang, and B. Xing, "Near-Infrared Light Brightens Bacterial Disinfection: Recent Progress and Perspectives," *ACS Applied Bio Materials*, vol. 4, no. 5. American Chemical Society, pp. 3937–3961, May 17, 2021. doi: 10.1021/acsabm.0c01341.

[11]   E D D Rianti, P O A Tania, A F Listyawati, "Pengaruh Paparan Sinar Inframerah Terhadap Pertumbuhan Koloni Staphylococcus Aureus Dan Escherichia Coli Dengan Indikator Jumlah Koloni," *Prosiding Semnas Biologi ke-9 Tahun 2021*: FMIPA Universitas Negeri Semarang .,pp:97-105

[12]   X. Teng *et al.*, "Rapid And Highly Effective Bacteria-Killing By Polydopamine/IR780@Mno2–Ti Using Near-Infrared Light," *Progress in Natural Science: Materials International*, vol. 30, no. 5, pp. 677–685, Oct. 2020, doi: 10.1016/j.pnsc.2020.06.003.

[13]   N. U. Nuha, Y. H. Darundiati, and B. Budiyono, "Hubungan Cuaca sebagai Faktor Risiko Kejadian Diare di Kota Administratif Jakarta Timur Tahun 2015-2019," *Media Kesehatan Masyarakat Indonesia*, vol. 21, no. 1, pp. 12–21, Apr. 2022, doi: 10.14710/mkmi.21.1.12-21.

[14]   Y. T. Lisa Gale, "The Effect of Near-Infrared between 1100-1800 nm Together with a Water-filter and a Contact Cooling," *Anaplastology.*, vol. 02, no. 03, 2013, doi: 10.4172/2161-1173.1000111.

Some Issues on Value Chain Networks for Developing Sorghum Entrepreneurs

Endang Noerhartati[1]

Introduction

Socialization of sorghum as an alternative food at this time must continue to be carried out in a sustainable manner, as the basis for efforts that have the potential to continue to promote entrepreneurial activities based on sorghum as an alternative food. Entrepreneurship activities in higher education are mandatory courses that aim to be sustainable, this is important in the end as the output of this course all students are expected to have an entrepreneurial spirit which will become a provision after graduation to be able to create jobs[1].

In this activity, students begin to choose entrepreneurship raw materials that have advantages, especially in the health sector. One of the superior raw materials for entrepreneurship as well as one of Indonesia's native plants is sorghum. Sorghum is a cereal crop, and its nutritional content is parallel to rice, wheat, and cassava in terms of carbohydrates, proteins, fats, vitamins, and minerals. However, it is very beneficial for health and has the advantages of being gluten-free, having high fiber, low glycemic index, and containing anti-oxidants[2].

The "Value Chain" (Value Added Chain/VAC) study aims to assess the goods and services along the chain and the relative strengths and weaknesses in the relationships among the various factors involved. This is done through the identification and mapping of the relationships of four types of features: 1) activities carried out during each stage of processing/product flow; 2) input value, processing time, output, and final added value; 3) spatial relationships, such as distance and logistics of activities; and 4) the structure of economic actors, such as suppliers, producers, and wholesalers. Therefore, these features provide an overall positive benefit for all actors (farmers, producers, local traders, small/medium manufacturers, wholesalers, and consumers) in the value-added chain[3].

Studies related to the value chain of sorghum, this is very new and the added value is limited to harvesting and marketing of whole sorghum seeds. The added value of processing sorghum seeds on a

---

[1] Wijaya Kusuma University Surabaya, endang_noer@uwks.ac.id

large scale is still limited at an early stage. Thus, this chapter is limited to descriptive analysis, its constraints, business models, and development issues for enhancing the value chain of sorghum.

Strengthening the value chain network in order to build, maintain, and strengthen consumer confidence in sorghum entrepreneurship products as alternative food, now people have begun to understand the importance of strengthening food security and supporting food sovereignty, and the development of marketing of sorghum food products has begun to exist in the market place and correctional facilities with various social media, so that the network of various sorghum entrepreneurs has gradually been started [4].

In this paper, we will discuss the development of alternative food for sorghum, and the stages of strengthening the sorghum value chain network. As a basis for the analysis, the results of a review of the sorghum value chain network in India will also be presented.

Sorghum development lessons from India

In India, sorghum cultivation offers the main support for rainfed agriculture on which 60% of Indian farmers depend. Sorghum cultivation in India covers an area of 14.99 million ha with an annual production of 14.52 million tons in 2015. Total production of sorghum and millet increased from 14.07 million tons (1955) to 16.77 million tons (2014), although there was a decrease in the area from 36.34 million ha (1955) to 15 million ha (2014) [5]. The increase in production was due to an increase in productivity from a meager productivity of 387 kg/ha which was realized during the sixties to 1089 kg/ha in 2015, due to the adoption of improved varieties, hybrids, and improved technology. Despite these attributes, sorghum has lost its importance in terms of both production and consumption in India mainly because of the support it gives to refined cereals (rice and wheat) in production, procurement, and distribution systems.

The valuation of sorghum and millet in Mali and their implications for competition and inclusive value chains. In Mali, like much of the Sahel, the value-added chain of sorghum and millet is still relatively underdeveloped, and weakly integrated, and only a small portion (30%) of production is marketed despite much greater urban demand. The decline in demand for sorghum and millet was caused by urbanization, the shift to ready-to-eat foods, and an increase in imported foodstuffs. Due to the limited marketing of sorghum and millet and the lack of value-added chain links with agroindustry, sorghum and millet usually do not have access to interrelated agreements or under-contract farming that would facilitate access to inputs.

In India, a consortium funded by the National Agricultural Innovation Project (NAIP) on "Demand Creation" for Sorghum/Millet Food through the PCS Value Chain" organized by the Indian Institute of Millets Research (IIMR) with a public-private partnership (PPP) is considering intervention throughout the value-added chain for pre-harvest and post-harvest the sorghum sector begins which has been briefly described in the case studies given below.

In order to popularize the consumption of sorghum through the value-added chain, it is important to address the problems of inconvenience, complicated and time-consuming preparation of sorghum food, lack of processing technology, lack of awareness of nutritional benefits, as well as government policies on the lack of incentives for sorghum. The components of the value-added chain model are as follows:

A. Market-based sorghum production through technological support and   end products that are specific to sorghum cultivation.
B. Development of sorghum food products and upscaling.
C. Evaluation of nutrition and food safety of selected sorghum
D. Assessing consumer acceptance, pricing and market strategies, and the existence of an Entrepreneurship Development Program policy.
E. Promotion, technology marketing, and commercialization.

These include developing special traits and high-yielding varieties, popularization among farmers, adoption of enhanced specialty technologies, guaranteed repurchase and linkages with processors, and development of novel Ready To Eat and various sorghum recipes. This value-added model creates demand for sorghum through the "Production to Consumption System" (PCS) model for selected sorghum food products and markets; this model works. The farmers, our key stakeholders, ensure higher and beneficial income in the long term as there is demand creation for sorghum cultivation through value addition and commercialization of convenient sorghum-based products with aging sorghum nutrition[5-7].

Domestic value chain sorghum issues towards sustainable production

The problem of the domestic sorghum value chain, starting from the availability of raw materials, strategies to increase demand, availability of process units, more innovative product variety,

sorghum lifestyle campaigns, as well as mapping and introduction of superior sorghum seeds, are as follows:

A. Availability of Raw Materials

The problem of the domestic sorghum value chain starts from the process of planting sorghum plants which are not carried out continuously but waiting for the time when rice and corn cannot grow, then it is decided to plant sorghum. This is indeed based on the main staple food is still rice and followed by corn. The continuity of sorghum raw materials in the market will determine the sustainability of the sorghum value chain. This can be overcome by establishing a network of sorghum producers so that they can plan, calculate the quantity of the existing sorghum, and provide direction for the next development process [9].

B. Increase Demand

Strategies to increase demand, become a major way to continue to increase the development of sorghum. This can be done in various ways, starting from the producer determining the standard of his needs, ensuring the process runs well, cooperating, seeking new customers, and quality products, making mistakes as constructive criticism for improvement and continuously researching market needs.

C. Availability of process units

The success of the sorghum value chain is largely determined by the availability of processing units, the sorghum seeds are very specific in their shape, round, small, and hard. So it must use a tool with a special design, currently available but still on a small scale, and needs further development. Meanwhile, other tools, namely sieves and sieves are available in the market.

D. More innovative product range

Entrepreneurship products are needed that are more innovative and varied so that they can compete with other products that are already on the market. And the product must reach all levels of consumers, according to age, and economic level, and be something new. So that it has an impact on business opportunities and solves life's problems.

E. Lifestyle Campaign

Lifestyle campaigns to encourage demand for sorghum products must be carried out in various ways and on various

occasions, with the aim of carrying out a daily sorghum consumption movement, namely the substitution of sorghum in the staple food of rice, the substitution of sorghum in cakes, cookies, and other snacks [12-13].

F. Mapping and introduction of Superior Seeds

The current success of sorghum production is not optimal, this is strongly influenced by the quality of the seeds, so there must be supporting research to obtain superior seeds that can increase the yield of sorghum production. In an effort to smooth entrepreneurship activities, it is also necessary to map the location of sorghum production, because in each area the time of planting and harvesting is not the same, as well as to determine the area of sorghum production [12].

Entrepreneurship Breakthrough for Developing Sorghum

The process of supporting the development of sorghum so that it can be maximized requires entrepreneurship breakthroughs, by planning, implementing, and perfecting activities that support the availability of ready-to-eat sorghum products, a staple food mindset with sorghum substitutes, keeping supply and demand in line and in harmony, as well as centers treated production, which in the paper the results of this discussion become a recommendation for the development of sorghum food in the future, are as follows:

A. Availability of ready-to-eat sorghum products

Ready-to-eat sorghum products are semi-finished sorghum products available in the market in small packages to substitute for rice staple food. In addition to finished products that are widespread in the market, frozen food products are also provided that are ready to be processed for consumption, so that a cold sorghum value chain will be created [13].

B. The mindset of staple food with sorghum substitution

Currently, the staple food is dominated by rice, so we have to change the mindset of staple food which was originally only rice by substituting or mixing it with sorghum.
C. Align Supply and Demand

The strategy of aligning demand and supply is very important, as how demand can be better predicted, regular supply, stable prices, the use of technology as needed, as well as the need for digital marketing to open new markets.

Factors that affect demand, namely: the price of the product will affect demand, especially if the price of substitute products is cheaper, the size of the amount of consumer income also affects the amount of demand, consumer tastes will affect the product demanded, the intensity of consumer needs, the estimated price at In the future, if there is an increase, for example, an increase in fuel, and an increase in population will affect demand. Besides that, there are still factors that affect the supply, namely: the price of the product itself, the price of substitute products, production costs, taxes, and technological advances.

Meanwhile, in managing demand, one must pay attention to several things, namely: understanding consumers and their desires, studying the pattern and nature of demand, pricing, making reservations/promises to always provide a stable level of demand, offering complaint services, and conducting advertising and sales promotions [14].

D. Development of Production Centers

Currently, sorghum-based production centers have started to exist in each sorghum-producing area, with offline and online marketing. Center development includes central institutional management, production management, marketing management, market channel development, facilitating the promotion, marketing chain development, and marketing network [17-18].

Conclusion

The sorghum value chain network is very important to be planned, implemented, and refined in a sustainable manner. The focus on value-added chains is a new paradigm in Indonesia, various efforts have been made in the last decade, however, it must continue to be formulated so that the increase in demand for sorghum is significantly increased, and this effort must be simultaneous with the development of sorghum entrepreneurship to support food sovereignty.

References

[1]   D. Chakraborty, M. Siddiqui, and A. Siddiqui, "Can Entrepreneurial Spirit Accelerate Local Agri-Food Consumption: A Mediation Moderation Analysis using Theory of Consumption Values," *Journal of International Food and Agribusiness Marketing*, 2022, DOI: 10.1080/08974438.2022.2035882.

[2]   M. di Cairano, N. Condelli, F. Galgano, and M. C. Caruso, "Experimental gluten-free biscuits with underexploited flours versus commercial products: Preference pattern and sensory characterisation by Check

All That Apply Questionnaire," *Int J Food Sci Technol*, vol. 57, no. 4, 2022, DOI: 10.1111/ijfs.15188.

[3]   F. Ricciotti, "From value chain to value network: a systematic literature review," *Management Review Quarterly*, vol. 70, no. 2, 2020, DOI: 10.1007/s11301-019-00164-7.

[4]   T. Hayashi, G. Ishimura, and Y. Ohsawa, "Structural Characteristics of Stakeholder Relationships and Value Chain Network in Data Exchange Ecosystem," *IEEE Access*, vol. 9, 2021, DOI: 10.1109/ACCESS.2021.3070017.

[5]   FAO, "FAO Global Aquaculture Production statistics database updated to 2013: Summary information," *Food and Agriculture Oraganization of the United Nations*, vol. 2013, no. March 2015, 2015.

[6]   B. D. Rao, "Sorghum Value Chain for Food and Fodder Security," in *Breeding Sorghum for Diverse End Uses*, Elsevier, 2019, pp. 409–419.

[7]   B Dayakar Rao *et al.*, *Recent trends in Production Utilization and Trade of Sorghum in India*. 2010.

[8]   O. Q. Adiamo, O. S. Fawale, and B. Olawoye, "Recent Trends in the Formulation of Gluten-Free Sorghum Products," *Journal of Culinary Science and Technology*, vol. 16, no. 4, 2018, DOI: 10.1080/15428052.2017.1388896.

[9]   P. Waiyawuththanapoom *et al.*, "The role of human resource management and supply chain process in sustainable business performance," *Uncertain Supply Chain Management*, vol. 10, no. 2, 2022, DOI: 10.5267/j.uscm.2021.11.011.

[10]   M. Zhou and V. Kraak, "A mixed-methods study of American Millennials' views about celebrity endorsement of foods and beverages," *Health Promot Int*, vol. 37, no. 1, 2022, DOI: 10.1093/heapro/daab048.

[11]   L. D. A. Zanetta *et al.*, "Consumer risk perceptions concerning different consequences of foodborne disease acquired from food consumed away from home: A case study in Brazil," *Food Control*, vol. 133, 2022, DOI: 10.1016/j.foodcont.2021.108602.

[12]   G. Hacisalihoglu and P. R. Armstrong, "Flax and Sorghum: Multi-Element Contents and Nutritional Values within 210 Varieties and Potential Selection for Future Climates to Sustain Food Security," *Plants*, vol. 11, no. 3, 2022, DOI: 10.3390/plants11030451.

[13]   K. P. Adeosun, M. Greene, and P. Oosterveer, "Informal ready-to-eat food vending: a social practice perspective on urban food provisioning in Nigeria," *Food Secur*, vol. 14, no. 3, 2022, DOI: 10.1007/s12571-022-01257-0.

[14]   M. M. Mehdi, S. Rakshit, T. R. Sarma, M. Joshi, and N. Nille, "Entrepreneurship and Innovation in the Bakery Industry: A Case

Study of Ganesh Bakery," *FIIB Business Review*, vol. 11, no. 1, 2022, DOI: 10.1177/23197145211020720.

[15]   T. v. Klepikova, "Innovative entrepreneurship as a factor of the sustainable development in Irkutsk region," in *IOP Conference Series: Earth and Environmental Science*, 2021, vol. 629, no. 1. doi: 10.1088/1755-1315/629/1/012042.

[16]   M. S. Alam, "Entrepreneurship Development through Agro-Processing Centers in Production Catchment for Secured Farmers Income," *Open Access Journal of Biogeneric Science and Research*, vol. 10, no. 2, 2021, DOI: 10.46718/jbgsr.2021.10.000240.

The Analysis of Visual Learner Based Personalized of the Students' Reading Comprehension

Eny Syatriana[1], Erwin Akib[2], Nurmutmainna[3]

Introduction

English is one of a few worldwide dialects spoken by a great many people all over the planet. In the worldwide time, individuals are supposed to dominate English so they can undoubtedly speak with others living in different nations. As the language of worldwide correspondence, individuals living in nations that utilization English as an unknown dialect, including Indonesia, should learn it. To help Indonesians to speak with others all over the planet, the Indonesian government integrates English into its schooling educational program as one of the necessary subjects beginning from middle school. Accordingly, it is trusted that there will be incredible open doors for Indonesian understudies to work on their English correspondence.

The aim of teaching English in Indonesia is primarily to enable students to use English for correspondence and to understand books and references written in English. The understudies are supposed to have English abilities, for example, reading, speaking, tuning in, communicating in and other language components that should be instructed to understudies through the chose subjects. Among the four abilities above, reading got more noteworthy consideration than the other three abilities since reading is an adaptable action for understudies, since they can get data from the text they have perused. Reading is likewise a functioning course of recognizing the significant thoughts contrasting. [1] Reading is a movement to comprehend the substance of the text that we read. By perusing, peruser can receive any message and data which can increment information. As per Pang et al. [2], reading is tied in with understanding composed messages and appreciation is the most common way of grasping words, sentences and associated message.

Reading comprehension includes insight and thought. Readers will utilize foundation of information, jargon, linguistic

---

[1] University of Muhammadiyah Makassar,
enysatriana@unismuh.ac.id

[2] University of Muhammadiyah Makassar,
erwin@unismuh.ac.id

[3] University of Muhammadiyah Makassar,
Inna105351109717@unismuhmakassar.ac.id

information, and different systems to assist them with grasping a composed text. It implies reading is the correspondence interaction between the author and the reader. The creator has a message of feeling, realities, thoughts, and contentions that they need to share. Then, at that point, the essayist enters the message into the words. In this way, perusing is a way in where something is deciphered or perceived. Each understudy experiences issues in figuring out how to read on the grounds that occasionally they feel exhausted and truth be told they will be apathetic to grasp the subject. Assuming you find a discouraged air, feeling compromised, feeling apprehensive, students feel powerless, lacking energy, students become languid and uninterested, the development of fatigue, a tedious learning climate, and learning doesn't draw to students' advantage, so learning becomes unsavory. [3].

The problem statement of this research is how is the achievement of the students' in reading comprehension through personalized background music ? and is there any significant improvement on the students' achievement in reading comprehension through personalized background music ? and based on the problem statement, the objective of this research are: to find out how is the achievement of the students' in reading comprehension through personalized background music and to find out the significant improvement on the students' achievement in reading comprehension through personalized background music.

[4] in their journals with the title, *Effect Of Background Music On Concentration Of Workers*, found that background music is a typical component in regular daily existence and the work environment. Assurance of whether background music influences the centralization of human work is a significant concern. Studies have tracked down the impact of ambient sound human way of behaving, and this study endeavors to comprehend what ambient sound and audience members' inclinations for music mean for laborer focus.

Literature Review

This examination in light of experienced while doing an internship at SMP Negeri 1 Sungguminasa where learning was done online because of the Covid-19 pandemic, the exploration saw the students who were languid in contemplating on the grounds that they were exhausted with the exhausting learning climate. One thing that makes them exhausted in learning English is on the grounds that the instructor generally utilized similar system each time they educate by just perusing a similar book so it makes understudies not amped up for learning. Typically, in educating of the reading, the instructor

simply give the course book which is the understudies generally see previously. At the point when the students are approached to read, they will feel exhausted. As concequence, the understudy just stay quiet and discussing other thing. The class become uproarious. Whenever it works out, the students inspiration lost.

For this situation, the researcher needs to rouse students through new climate that makes students more keen on working on how they might interpret reading comprehension with specific procedure. In this examination, to further develop students reading comprehension abilities and cause students to have high inspiration, the specialist will zero in on estimating and knowing "An Analysis The Effect of Personalized Background Music of The Students' In Reading Comprehension at SMPN 2 Aralle" abilities particularly in SMPN 2 Aralle, where these days students are very requires methodologies that can make the environment more wonderful and agreeable for students while going through the growing experience.

Therefore, the conclution is the researcher wants to analyze how the effect of personalized background music can have a good effect on the level of students' reading comprehension so that leter it can be used as a strategy in learning process. The scope of the study is focus on improving students' reading comprehension skills by analyzing and knowing the achievement of the students through personalized background music.

Method

The research method is the method that will be used to investigate a problem. In this case, the researchers used an pre-experimental design method to analyze the effect of personalized background music on the students' in reading comprehension. In this research, the researcher used pre-experimental design. The implementation process focused on the One-Group Pretest-Postest Design. Ary, Jacobs, Irvine, and Walker [5], explained that one group pretest-posttest design usually involves three steps: 1) administering a pre-test which measuring the dependent variable; 2) applying the experimental treatment to the subjects; and 3) administering a post-test, again measuring the dependent variable.

Instrument for social occasion data is by and large critical in each intelligent assessment. The instrument in this assessment is a lot of piece test. Understudies answers the article test in pre-test and post-test to gather the information. The exploration likewise uses the Google meet, Zoom and Whatsapp bunch, which has been done to make this examination successful. The specialist attempted to cause the examination to have the option to be directed at home.

In social affair the information, the research mentioned objective facts on the students prior to giving the pre-test. Perception were made to find out and recognize students who were homogeneous or heterogeneous. This is additionally done so the exploration can all the more effectively figure out the sort of music that is reasonable for standing by listening to students during the examination interaction, to acquire a decent outcome. Then, the analyst giving the pre-test to managed before the current scientist involving the classical style music as a personalized background music in the students understanding interaction. It expects to decide the degree of comprehension of understudies or students' in reading comprehension prior to utilizing personalized background music. At last, toward the finish of the gathering the specialist giving the post-test. Post-test has been given to the students after the treatment to know the impact of personalized background music of the students' in understanding reading comprehension.

Findings

The exploration results connected with reading text with Personalized Background Music in the educational experience to further develop students' reading comprehension of the second grade students at SMPN 2 Aralle utilizes an exploratory technique with quantitative information investigation. In view of the information assortment got by pre-test and post-test, the examination has demonstrated that Personalized Background Music really further developed students' reading comprehension. The consequence of information examination should have been visible as follow:

A. The Improvement of Students' Reading Comprehension

Based on the research results, there were improvements in the students' reading comprehension by using Personalized Background Music in learning process, the number sees it of the mean score of the pre-test, which is 53.89, and the number of post-test is 72.22. The scoring percentage of the reading improvement of the students between pre-test and post-test is 25.38%.

1) Pre-test

The Pre-test obtained students' reading comprehension rate score percentage before the researcher gave the students treatment. The process involved 20 students in the second grade students of SMPN 2 Aralle.

Table 2.1 The Pre-test Students' Rate Score

No	Classification	Score	Pre-test	
			Frequency	%
1.	Excellent	96-100	-	
2.	Early good	86-95	-	
3.	Good	76-85	1	5%
4.	Fairly good	66-75	2	10%
5.	Fair	56-65	5	25%
6.	Poor	36-55	8	40%
7.	Very Poor	0-35	4	20%
Total			20	100%

The table shows the results of students' reading comprehension score. Based on the data which the researcher obtained from the pre-test, there were four students in the Very Poor category (20%), eight students in the Poor category (40%), five students in the Fair category (25%), two students in the Fairly good category (10%), and a student in Good category (5%). Besides, there still some of the students has very poor categories. The researcher assumed that the student's skills was needed to be improved from the score percentage of the students' reading comprehension skills.

2) **The Post-Test**
Post-Test obtained students' reading comprehension rate scores percentage after the researcher gave treatment to the students.

Table 2 The Post-test Students' Rate Score

No	Classification	Score	Post-test	
			Frequency	%
1.	Excellent	96-100	0	0%
2.	Early good	86-95	3	15%
3.	Good	76-85	6	30%
4.	Fairly good	66-75	3	15%
5.	Fair	56-65	8	40%
6.	Poor	36-55	0	0%
7.	Very Poor	0-35	0	0%
Total			20	100%

The table shows the results of students' vocabulary score in the post-test. Based on the data above, there was three student in the Early Good category (15%), six students in the Good category (30%), three students in the Fairly Good

category (15%) and eight students in the Fair category (40%). Meanwhile, none of the students has Poor and Very Poor categories.

Related to the students' reading comprehension score above, it can be seen that the result of the post-test was slightly enhanced. More than half of the students got the Fairly Good category and none of the students in the Poor or Very Poor categories.

3) Mean score

The improvement of the mean score of students' reading comprehension can be seen in the following table:

Table 3 Mean Score of Students' Reading Comprehension in Pre-test and Post-test.

Indicator	Pre-Test	Post-test	Improvement
Students' Reading Comprehension	55%	73.75%	25.42%

The table of the mean score of students' reading comprehension score shows that in the students' pre-test got 53.89% (Poor), and in the post-test, the result was improved to 73.75% (Fairly Good). The improvement of the research was 25.42%. It can be assumed that the research about the Personalized Background Music has a good effect to help students in learning processes was successful.

Discussion

In this part, the results of the findings will be discussed in this section. The discussion aimed to describe An Analysis The Effect Of Personalized Background Music On The Students' In Reading Comprehension. The explanation is based on the results of the pre-test and post-test.

Using Personalized Background Music in learning process can be the innovative strategy to improve students' in reading comprehension. Related to previous researchers' statement, [6], stated that the type of music that teachers play may have an impact on what their students are learning. He also stated that when we listen to music certain frequencies of sounds have positive effects on certain parts of the brain. which brings a calming effect to students. [7]. It has also been noted that when music is being played in the classroom,

there is a notable change in student body temperature, blood pressure, breathing, and pulse [7].

The pre-test was conducted on January 11th 2022. The topic was based on the researcher lesson plan that was a Narrative Text. The researcher asked the students to answer the question on essay test. Most students found the difficulties to comprehend the text. Most of them gave wrong answer on the test. It showed that their reading comprehension which had been appeared in pre-test, the researcher conducted treatment in two meetings.

The first meeting was on January 17th 2022. It was the first day for treatment. The researcher conducted the first meeting by teaching about a narrative text while Personalized Background Music with classical music which is played by using a speakers at schools. Firstly, the researcher explained about Narrative Text and its definition of narrative text, generic structure, purpose and its examples. The researcher than showed the example of Narrative text and the students should identify the generic structure and brought the students to focus on. Before ending the learning process, the researcher asked the students to bring a narrative text to the next meeting. [7].

The second meeting was on January 18th 2022. It was the second treatment an still played the classical music, the teacher review the material and asked the students questions related to narrative text to find out the extent to which students understand then the teacher asked students to identify the generic structure of the text they brought. At this second meeting the students looked very enthusiastic in the learning process, they said that learning was more enjoyable because it was accompanied by background music so it was not quiet and bored.

Last meeting was on January 25th 2022. This meeting was for giving the post-test after treatment. Based on the row score, most students gave right answered for the question. It showed that the level of students' reading ability had increased compared to before treatment.

Conclusions and Suggestion

After conducting the Pre-experimental Research about The Effect of Personalized Background Music On The Students' Reading Comprehension and based on the research findings in, the researcher concluded that Personalized Background Music is effective to used as a strategy to improve students' reading comprehension, it was proved by the mean score of students' achievement before and after giving the

treatment which is 53.89% in pre-test become 72.22% in the post-test. It increased 25.38%.

This research is suggest for english teacher to use the Personalized Background Music as a strategy to make students more interesting in the learning process so it can be improve students' reading comprehension and for the next researcher, hopefully the result of this research can also be used as an additional reference or future research with different discussion

References
[1]   D. Yulianti, "Improving the English reading comprehension ability of grade 8 students at SMPN 3 Gedangsari in the academic year of 2013/2014 through extensive reading activities," pp. 1–227, 2014.
[2]   D. Hidayati, "Students Difficulties in Reading Comprehension At," *Students Difficulties Read. Compr. At.*, 2018.
[3]   S. B. Hutauruk, "for ENGLISH FOR SPECIFIC PURPOSES Compiled By Bertaria Sohnata Hutauruk Only for our classroom instructions (Very restricted use) FKIP UHN," p. 200, 2015.
[4]   R. H. Huang and Y. N. Shih, "Effects of background music on concentration of workers," *Work*, vol. 38, no. 4, pp. 383–387, 2011, doi: 10.3233/WOR-2011-1141.
[5]   C. K. A, R. Heron, and B. Today, "the effectiveness of ZIZO strategy in teaching reading," pp. 56–59, 2001.
[6]   R. DIjkgraaf, "Attention drainage effect: How background music concentration in Taiwanese collage students'," *Sci. Am.*, vol. 316, no. 6, p. 8, 2017, doi: 10.1038/scientificamerican0617-8.
[7]   N. Rashidi and F. Faham, "The effect of classical music on the reading comprehension of Iranian students," *Theory Pract. Lang. Stud.*, vol. 1, no. 1, pp. 74–82, 2011, doi: 10.4304/tpls.1.1.74-82.

Impact of Perceived Usefulness, Ease of Use, Enjoyment on Repurchase Interest in Industry 4.0 and Society 5.0

Erminati Pancaningrum[1]

Introduction

The rapid development of information technology causes automation that occurs in all fields by utilizing digitalization fundamentally [1]. Industry 4.0 presents major challenges that must be faced by the business world related to communication technology security issues, the reliability of the stability of production machines, and the number of job losses due to turning automation [2]. In addition, the lack of adequate human resources skills and the inability to change stakeholders are also major challenges in this era [2]. Society 5.0 is a concept of community technology that is human-centered and collaborates with technology (AI and IoT) to solve social problems that are integrated into virtual and real-world spaces. The concept of industry 4.0 is almost the same as society 5.0. Industry 4.0 emphasizes the use of artificial intelligence (AI) and artificial intelligence as its main components. Society 5.0 uses modern technology and relies on humans as its main component [3]. One of the uses of technology is the use of the internet as part of human life.

Indonesia is one of the countries that actively use the internet. Ease of internet access has a positive impact on various activities in Indonesia. According to We Are Social & Hootsuite (2022) the number of internet users in Indonesia in 2022 will reach 204.7 million of the total population of Indonesia reaching 277.7 million people. This means that 73.7% of Indonesians are touched by technology by surfing in cyberspace. The number of connected mobile devices also increased to 370.1 million and users who were active on social media as a platform also increased to 191.4 million.

The advancement of the internet has become one of the triggers for acceleration in the business world. By utilizing the internet, many entrepreneurs are facilitated to conduct business transactions. This is also felt by consumers in accessing needs via the internet to be very easy. The use of the internet influences the development of e-commerce in Indonesia. In Indonesia, business opportunities appear on buying and selling forums, such as online

[1] Management Study Program, STIE PGRI Dewantara Jombang, panca@stiedewantara.ac.id

shopping which has now become a consumer need, making purchases easy without spending a lot of time and effort [4].

E-commerce is how business people use information and communication technology to carry out business processes to achieve goals [5]. On the e-commerce platform, there are many choices of shops selling similar products, so consumers can easily compare a product between existing stores. With e-commerce, consumers can buy necessities from various regions, both domestically and abroad.

To increase users of e-commerce platforms, a good e-commerce system is needed, easy to use, and user-friendly. Customers who already feel comfortable in online shopping will generally switch from conventional stores to online stores [6]. Venkatesh (2000) defines perceived enjoyment as the extent to which activities using a particular technology are considered enjoyable, apart from the performance consequences resulting from the use of technology [7]. One of the concepts of technology acceptance as a tool in carrying out activities, especially in this case business activities, is the Technology Acceptance Model (TAM) theory. In the TAM concept, there are main constructs, namely perceived usefulness and perceived ease of use as the theoretical basis.

There are several studies of the TAM model that include new factors as modifications of the initial TAM developed by Davis (1989). Some of them are Venkatesh. Venkatesh adds another factor that influences individuals in the use of information technology systems, namely perceived enjoyment. This perceived enjoyment also influences one's interest in reusing a technology [8].

Perceived usefulness is a significant factor that affects the acceptance of information systems [9]. Perceived usefulness is defined as the extent to which a person believes that using a technology system will improve his work performance [10]. In this case, it means that benefits are a strong determinant of the use of an information technology system. Perceived ease of use is defined as the ease of use of technology as a measure in which a person believes that technology can be easily understood and used [11]. This perception can determine user behavior in determining the intention to use technology.

Perceived ease of use is defined as the ease of use of technology as a measure in which a person believes that technology can be easily understood and used [11]. Perceived ease of use is also defined as a person's level of belief that using technology will reduce excessive effort [12]. Cudjoe [13] suggests that perceived ease of use is the degree to which a person believes that using a particular technology or system will be free of effort [13]. From some of these

descriptions, according to several previous researchers, perceived ease of use can be described as the level of confidence of an individual where studying, utilizing, and using technology is believed to make it easier for users. This perception can determine user behavior in determining the intention to use technology.

Perceived enjoyment is defined as comfort triggers the extent to which activities using technology are considered enjoyable by themselves [9]. Feelings of pleasure and comfort in the use of information technology systems make users do their jobs well and finish on time. The existence of perceived convenience can cause consumers to like that online shopping is fun, but if online shopping consumers do not feel comfortable, their interest to reuse will decrease [14].

Intention to reuse is the intention to reuse a product or service [15]. Intention to reuse is the intention to behave in using the same product twice or more. A desire or intention to use something can be projected by consumer behavior.

Discussion
Impact of Perceived Usefulness on Intention to Reuse

The analysis of perceived usefulness on interest in using or repurchasing shows that perceived usefulness affects an interest in using or repurchasing on e-commerce platforms. According to consumer perceptions, the perceived benefits when using technology, in this case, shopping through e-commerce platforms, are very large. Consumers get the desired benefits when using technology as a shopping platform, as it saves more time and effort. In addition, the usefulness of the content of the website will lead to consumer confidence, and it will affect consumer behavior. This shows that in industry 4.0 the process of digitalization in business activities, especially in this context of marketing, provides benefits for consumers and shopping behavior and helps the development of marketing strategies,

Perceived usefulness describes an individual's belief in getting the desired benefits when using technology. Perceived usefulness can also be interpreted as an individual's belief that using technology will improve user performance. Thus perceived usefulness is a person's subjective perception of the abilities and benefits received by individuals related to the technology used. If someone believes that they will get benefits, there will be a desire to use them. Vice versa, if the individual does not have the belief that he will get benefits, then he will not be interested in using it [16]. This result is in line with the study conducted by Dewi and Santika, [17]. The results

of the research show that there is an influence of perceived usefulness with repurchase intentions on the e-commerce platform.

Impact of Perceived Ease of Use on Intention to Reuse

Based on the results of a study on perceived ease of use on intention to reuse, shows that well-perceived ease of use will have an impact on increasing intention to reuse on e-commerce platforms. The ease of use, and the ease of operating the features available on the e-commerce platform without much effort, will increase consumer confidence. Ease in this case is the process of using technology without significant difficulties and is easy to operate and apply. This trust will increase to re-shop through the e-commerce platform.

Ease of use (perceived ease of use) is the degree to which a person believes that using a system can be used easily without much effort [18], [10]. Tojib and Tsarenko (2012) suggest that perceived ease of use is a condition of a person when using certain technologies or systems easily without effort [19]. Thus it can be said that perceived ease of use is a person's level of confidence in which learning, utilizing, and using technology will facilitate the wearer. Ease of use relates to whether or not the site is used by consumers. Sometimes consumers will have difficulty when they first do online shopping through an e-commerce platform and tend to cancel their intentions because they do not understand how to interact online. Consumers will think that if the use of the site turns out to be more complicated than the benefits obtained from online shopping, then consumers will prefer to shop directly at the place. Conversely, if the site is easier to use and provides benefits, potential buyers will use the site to shop online. A system and technology that is considered easy to use will affect a person's behavior to use it [20]. The results of the studies that have been carried out are in line with research conducted by [21], which uses the perceived ease of use variable, the results of which show that perceived ease of use influences intention to reuse.

The Effect of Perceived Enjoyment on Intention to Reuse

The research conducted shows that pleasant perceived enjoyment has an impact on increasing intention to reuse. Perceived enjoyment is explained as the extent to which activities using technology or a system are considered pleasant in the minds of users and feel pleasure when operating them [7]. Well-perceived enjoyment is seen from respondents about fun activities and the comfort that someone feels when using e-commerce/technology platforms. This causes the behavior of consumers and individuals to take advantage of these applications and technologies to improve their performance.

The influence of convenience on the interest in reusing e-commerce is a rational thing. Consumers or individuals who get comfort from the use of technology and information systems tend to form behavioral intentions compared to other individuals who do not feel comfortable [18]. Shopping convenience is a consumer's attitude towards activities using a certain system that is considered to provide pleasure and happiness oneself, Davis [22]. Convenience is a significant motivator of re-use intention, indicating that the perceived pleasure and enjoyment in using technology for online shopping is an important factor influencing the re-use intention of e-commerce platforms.

Conclusion

The rapid development of technology has had a major impact on human life and business. Technology is becoming an important part of the development of marketing and consumer behavior. Industry 4.0 and society 5.0 in marketing strategies bring up a combination of technology and consumer experience in shopping. One such experience is when shopping online. In shopping online, consumers want perceived usefulness, perceived ease of use, and perceived enjoyment in every marketplace. These three components will create a pleasant shopping experience for consumers. Thus, perceived usefulness perceived ease of use, and perceived enjoyment influence the intention to repurchase.

Reference

[1]   R. R. Tjandrawinata, "Industri 4.0: Revolusi Industri Abad Ini dan Pengaruhnya pada Bidang Kesehatan dan Bioteknologi", Medicinus, vol. 29, no. 1, pp. 31-39, 2016, doi: 10.5281/zenodo.49404.

[2]   L. Ellitan, "Competing in the Era of Industrial Revolution 4.0 and Society 5.0", Maksipreneur Manajemen Koperasi dan Entrepreneurship, vol. 10, no. 1, pp. 1-12, 2020, doi: 10.30588/jmp.v10i1.657.

[3]   Admin, 2022 January 11, "*Apa Itu Era Society 5.0 dan Apa Perbedaannya Dengan Era Industri 4.0*", barki.uma.ac.id, https://barki.uma.ac.id/2022/01/11/apa-itu-era-society-5-0-dan-apa-perbedaannya-dengan-era-industri-4-0/, diakses 03 November 2022.

[4]   O. S. Herdiyanto, and D. S. Hidayahtullah, "Analisis Niat Pengguna Tokopedia Dengan Pendekatan Technology Acceptance Model (Studi Kasus Mahasiswa Studi Ekonomi

dan Bisnis Telkom University)", *e-Proceeding of Management*, vol. 5, no. 3, pp. 3020, 2018.

[5] Fahmi, *Pengantar Manajemen Sumber Daya Manusia Konsep dan Kinerja*, Jakarta: Mitra Wacana Media 2016.

[6] A. Sarkar, "Impact of Utilitarian and Hedonic Shopping Values on Individual's Perceived Benefits and Risk in Online Shopping", *International Management Review*, vol. 7, no. 1, pp. 58-65, 2011.

[7] V. Venkatesh, "Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance Model", *Information System Research*, vol. 11, no. 4, pp. 342-365, 2000, DOI: https://doi.org/10.1287/isre.11.4.342.11872.

[8] G. P. L. Permana, and A. A. I. Parasari, "Pengaruh Hedonic Motivation, Social Influence, dan Perceived Enjoyment Terhadap Penggunaan Marketplace Pada UMKM di Bali: Studi Kasus Pada HIPMI Provinsi Bali", *Ilmiah Manajemen dan Bisnis*, vol. 4, no. 1, pp. 90-102, 2019, doi: 10.38043/jimb.v4i1.2154.

[9] F. D. Davis, R. P. Bagozzi, and P. R. Warshaw, "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models", vol. 35, no. 8, pp. 982-1003, 1989, DOI: 10.1287/mnsc.35.8.982.

[10] F. D. Davis, and F. Davis, "Perceived Usefulness, Perceived Ease of Use and Acceptance of Information System Technology", *MIS Quarterly*, vol. 13, no. 3, pp. 319-339, 1989, DOI: 10.2307/249008.

[11] L. P. Ratnaningrum, "Aplikasi Model TAM Terhadap Pengguna Layanan Internet Banking di Kota Denpansar", *Jurnal Eco-buss*, vol. 4, no. 1, pp. 40-48, 2016, eISSN 2622-4305.

[12] T. Indarsin, and H. Ali, "Attitude Toward Using m-Commerce: The Analysis of Perceived Usefulness, Perceived Ease of Use, and Perceived Trust: Case Study in Wholesale Trade Jakarta – Indonesia", *Saudi Journal of Business and Management Studies*, vol. 2, pp. 995-1007, 2017, DOI: 10.21276/sjbms.2017.2.11.7.

[13] A. G. Cudjue, P. A. Anim, and J. G. M. T. Nyanyofio, "Determinants of Mobile Banking Adoption in the Ghanaian Banking Industry: A Case of Access Bank Ghana Limited", *Journal of Computer and Communications*, vol. 3, no. 2, pp. 1-19, 2015, DOI: 10.4236/jcc.2015.32001.

[14] E. K. Trisnawati, "Analisis Faktor-faktor Kunci Dari Niat Pembelian Kembali Secara Online (Studi Kasus Pada

Konsumen Fresh Shop)", *Jurnal Bisnis dan Ekonomi (JBE)*, vol. 19, no. 2, pp. 126-141, 2012, ISSN: 1412-3126.

[15]   A. Rajasa, and F. Faturachman, "Predicting the Intention to Re-Use on Accounting Application Software", *The International Journal of Business & Management*, vol. 3, no. 8, pp. 206-212, 2015, ISSN 2321-8916.

[16]   N. Kristiani, and Putri, S.W., "Pengaruh Perceived Usefulness dan Playfulness Terhadap Intention to Use Pengguna Aplikasi TikTok Di Masa Pandemi Covid-19", *Capital Jurnal Ekonomi dan Manajemen*, vol. 5, no. 3, pp. 162, 2002, doi: 10.25273/capital.v5i2.12021.

[17]   P. D. Dewi, and I. W. Santika, "Pengaruh Technoloty Accepatance Model (TAM) Terhadap Niat Beli Ulang Online di Kota Denpasar", *E-Journal Manajemen Unud*, vol. 7, no. 8, pp. 4124-4152, 2018, doi: https://doi.org/10.24843/EJMUNUD.2018.v07.i08.p04.

[18]   F. D. Davis, "User Acceptance of Information Technology: System Characteristic, User Perceptions, and Behavioral Impact", *International Journal of Man-Machine Studies*, vol. 38, no. 3, pp. 475-487, 1993, DOI: https://doi.org/10.1006/imms.1993.1022.

[19]   D. Tojib, dan Y. Tsarenko, "Post-Adoption Modeling of Advanced Mobile Service Use", *Journal of Business Research*, vol. 65, no. 7, pp. 922-928, (2012), DOI: https://doi.org/10.1016/j.jbusres.2011.05.006.

[20]   P. A. Nurrahmanto, and Rahardja, "Pengaruh Kemudahan Penggunaan, Kenikmatan Berbelanja, Pengalaman Berbelanja dan Kepercayaan Konsumen Terhadap Minat Beli Konsumen di Situs Jual Beli Online Bukalapak.Com", *Diponegoro Journal of Management*, vol. 4, no. 2, pp. 1-12, 2015, http://eprints.undip.ac.id/45651/.

[21]   I. Aripratama, "Analisis Pengaruh Perceived Ease of Use dan Perceived Usefulness terhadap Intention to Reuse dimediasi oleh Trust; Studi pada pengguna ShopeePay", 2021

[22]   J. Shen, "Social Comparison, Social Presence, and Enjoyment in the Acceptance of Social Shopping Website", *Journal of Electronic Commerce Research*, vol. 13, no. 3, pp. 198-212, 2012.

The Humanist Side In The Settlement
Of Child Crime

Farhana[1]

Introduction

Children are a state asset that is important to protect and become the future of a nation. Children as one of the human resources for long-term investment need to be considered because children play a role in continuing the life of the nation and state in all fields and all aspects of life.

Rapid development in the field of communication and information, the flow of globalization, advances in science and technology have resulted in lifestyle changes and fundamental social changes in people's lives which greatly affect children's values and behavior. Children who are in the process of development looking for identity to become adults, are often affected by the negative impacts of rapid development and globalization which result in deviant behavior or committing acts against the law. Childhood is a vulnerable period, children are not yet independent, immature emotions and social feelings so that the child's personality is still developing. With these psychological characteristics, handling children requires special treatment and special protection against actions that can harm children's development.

The times are increasingly complex and diverse, globalization causes positive and negative influences followed by changes in human behavior. Negative behavior that causes social problems because it violates social norms. Behavior that violates this norm does not only occur in adult society, but children are also not spared from deviant behavior and often violate the law. There are many reasons why children commit acts against the law.

In fact there are some children who are neglected or do not develop according to their age as children and many children whose childhood ends too quickly so that behavior deviations or illegal acts can occur. Children cannot protect themselves including their own rights. The phenomenon of children committing illegal acts and crimes is becoming more frequent and complex. As of August 2020, it was recorded in the report of the Commission for Child Protection that there were 123 cases of children in conflict with the law (ABH) as perpetrators of crimes, the most cases being physical violence (30

---

[1] Faculty of Law, Jakarta Islamic University, frh961@gmail.com

cases), sexual violence (28 cases) and traffic accidents (13 cases) and theft. (12 cases) [1]. There are quite a lot of cases of children in conflict with the law in 2020, so the handling is different from adults. Children in conflict with the law require special handling and special protection for the psychological and physical development of children. There are differences in the handling of juvenile criminal cases and adult criminal cases. different from the handling of criminal cases against adults. In dealing with children in conflict with the law, it is based on the principle of the best interest of the child or the best interest of the child as the highest priority in every decision related to children. In making decisions consider the survival and development of children. This is in accordance with the general principles of the Convention on the Rights of the Child and the principles of the juvenile justice system in Indonesia.

The handling of criminal cases against children is regulated in Law No. 11 of 2012 concerning the Juvenile Criminal Justice System, which regulates the process of resolving cases of children in conflict with the law starting from the investigation stage to the mentoring stage. The distinction between the handling of juvenile criminal cases and adult criminal cases has a goal, namely that children's development is protected where children have a long future. Therefore the issue raised is How is the legal settlement of children in conflict with the law humanely?

Humanist Views in Regulations on Children in Conflict with The Law.

In the preamble to the Declaration on the Rights of the Child (1959) it is implied that it is the human obligation to provide the best for children. This declaration confirms that the right of the child to get special protection, opportunities and facilities for children to develop in a state of freedom, have a name and nationality, social security, health, housing education, special treatment for children with disabilities to grow and be raised in an atmosphere full of love. and sense of security; get an education and in case of disaster children are among the first to receive protection. This declaration emphasizes that children must be raised in a spirit full of understanding, tolerance, friendship between nations, peace and universal brotherhood.

The Declaration on the Rights of the Child is an international convention that regulates the civil, political, economic, social and cultural rights of children. This convention contains universal principles and legal norms regarding the rights of the child. Special international instruments relating to children in conflict with the law are contained in the Beijing Rules (1985) concerning minimum rules

for the administration of juvenile justice and in the Riyadh Guidelines (1990) concerning the prevention of juvenile crimes.

The international instruments mentioned above are closely related to each other in order to protect the rights of children in conflict with the law and are used as basic guidelines for the juvenile justice system in member countries. Affirmation of children's rights, protection of children by the state and the participation of various parties, namely the government, society and the private sector in guaranteeing children's rights, emphasizing human values.

The repressive juvenile justice system has begun to be abandoned because the system has failed to reduce the crime rate of children. The approach to punishing children within the framework of the penal system as the main approach carries enormous risks and consequences, namely risks and consequences related to the future of the child after undergoing the punishment process.

Legal experts and policy makers think about alternative interventions that are more suitable in dealing with children in conflict with the law by paying more attention to being directly involved in reintegration and rehabilitation to resolve the problems of children in conflict with the law. Children entering the criminal justice system have a negative impact on children's lives. These negative impacts can be in the form of physical, emotional and stigma that continue after the judge's decision and feelings of guilt in the child. [2]. These adverse impacts affect the development and growth of children, and in the end continue to damage the child's future.

Juvenile justice and criminal proceedings do not always have a deterrent effect on children but can disrupt children's growth and development both physically and psychologically [3]. Beck argues that processing certain youth through the juvenile justice system may be more harmful, as it inadvertently stigmatizes and ostracizes them for having committed relatively minor acts that may be more appropriately dealt with outside the formal system. Labels such as "deviant," "delinquent," or "juvenile offender" can influence the ways in which youth come to define themselves and how society perceives them, thereby influencing their future behavior and dictating the social roles they may assume.

To avoid this impact, the paradigm that is currently developing is used in seeing children in conflict with the law, namely the Restorative Justice approach as the basis for resolving children in conflict with the law. Restorative justice is an alternative that is developing in world countries for solving children who have problems with the law because it offers a comprehensive and effective solution. [4]

Restorative justice is an approach that seeks to resolve criminal cases peacefully by empowering parties who have an interest in resolving these cases [5], [6]. The Restorative Justice approach is used in settlement processes that are carried out outside the criminal justice system. Meetings are held between victims, perpetrators, families and communities as well as interested parties for deliberations so that an agreement can be reached. The aim of the restorative approach is to heal the wounds of all parties caused by the crime committed. Restorative justice gives equal attention to victims and perpetrators and the authority to determine a sense of justice lies in the hands of the parties, not the state. Therefore, the measure of justice is no longer based on retaliation from the victim to the perpetrator, whether physical, psychological or punishment; but the painful act is cured by providing support to the victim and holding the perpetrator accountable with the help of family and society when needed [7], [8]. The measure of justice in restorative justice is based on repentance and forgiveness, not on retaliation or imprisonment according to the retributive principle. Restorative Justice shifts the philosophical values of handling children from punishment to reconciliation, retaliation against perpetrators towards healing victims, exile and violence towards participation and kinship in society as a whole, negative destructive towards improvement, forgiveness filled with an abundance of love [9].

The shift in the paradigm of justice in solving children in conflict in law can be seen from the differences between retributive justice, restitution and restoration in the table below:

Table1 Differences in the Justice of Restitution, Retribution and Restoration

No	Difference	Restitution	Restribution	Restoration
1	Philosophy	Correct errors by replacing or updating	Achieve justice by giving recompense for the suffering/pain caused	Forgiveness as a basis for improving human relations
2	Method	Victims receive compensation	Perpetrators were given a commensurate or more severe punishment	The perpetrator regretted the act, promised not to repeat it by providing compensation if necessary

No	Difference	Restitution	Restribution	Restoration
3	Focus	Victim	Perpetrator	Victims and Perpetrators

Source: Dean E. Peachey, 1992: 552-553 [10]

Based on the table above, restorative justice provides a more comprehensive solution for victims and perpetrators, in which restorative justice gives equal attention to victims and perpetrators and the determination of a sense of justice is in the hands of the parties.

Implementation of restorative justice in solving children in conflict with the law through diversion. One form of settlement of criminal cases outside the court is diversion. This institution is more focused on cases of children in conflict with the law. [5]. Law enforcement officials are given the authority to take policy actions in dealing with or resolving children in conflict with the law so that handling or settlement does not go through the criminal justice system. This is stated in the United Nations Standard Minimum Rules For The Administration Of Juvenile Justice or The Beijing Rules [11].

Legal provisions concerning children in conflict with the law are regulated in Law No. 35 of 2014 concerning Amendments to Law No. 23 of 2002 concerning Child Protection, that children in conflict with the law receive special protection through prompt handling efforts, psychosocial assistance, provision of social assistance and provision of protection and assistance in every judicial process (Articles 59 and 59A). The special provisions regarding children in conflict with the law are Law no. 11 of 2012 concerning the Juvenile Criminal Justice System (SPPA Law) [12]. There are differences in procedural law and criminal sanctions that differ from adults who commit crimes. The distinction between the process of handling children in conflict with the law intends to provide more protection and protection for children for their long future, besides that it provides opportunities for children to restore opportunities for growth and development of children in conflict with the law, this shows humanist values in resolving cases of children dealing with by law.

There are several things that show humanist values in the juvenile justice system in Indonesia, namely:

A. Child Term

From the term children in conflict with the law, it already describes humanist values, by not using the terms naughty

children, criminal children, child offenders and so on which are translated from juvenile delinquency.

The age of a child in conflict with the law is 12 years old and not yet 18 years old who is suspected of committing a crime. Applications to juvenile courts must be over 12 years of age, this is based on international instruments. Before a child in conflict with the law turns 18 years old, he or she will be submitted to a juvenile court (Article 20)

B. Process for Resolving Children in Conflict with the Law.

In the SPPA Law, it is obligatory to use a restorative justice approach through diversion efforts. Article 6 to 15 of the SPPA Law and the procedures and stages of diversion are regulated in Perma RI No. 4/2014 concerning Guidelines for the Implementation of Divection in the Juvenile Criminal Justice System is the foundation of restorative justice with diversion.

Diversion aims to prevent victims and children in conflict with the law, peace occurs, is resolved outside the judicial process, children are avoided from being deprived of independence, the community is encouraged to participate and children are instilled with a sense of responsibility. (Article 6 SPPA Law). Diversion can be carried out if the crime committed by a child is punishable by imprisonment under 7 years and is not a repetition of the crime. (Article 7 SPPA Law).

The interests of the victim; child welfare and responsibility; avoidance of negative stigma; avoidance of retaliation; community harmony; and propriety, decency, and public order must be considered in the diversion process.

Diversion must be pursued at every stage, namely the stages of investigation, prosecution and examination of child cases in court. (Article 7 of the SPPA Law)

The categories of criminal acts, the age of the child, the results of social research from the bapas and support from the family and community environment need to be considered by investigators, public prosecutors and judges in the diversion process (9 UU SPPA):

Forms of diversion agreements, among others (Art. 11): peace with or without compensation; submitted to parents/guardians; participate in education or training at an educational institution or LPKS for a maximum of 3 (three) months; or community service.

A diversion agreement can also be made without the consent of the victim and the willingness of the child in conflict with the law, if it

is in the form of a criminal offense, a misdemeanor or is punishable by imprisonment or imprisonment for a maximum of three months, without victims or the value of the loss is no more than the local provincial minimum wage.

C. Criminalization of Children in Conflict with the Law

Children in conflict with the law can be subject to sanctions, namely action sanctions imposed on children under the age of 14 and criminal sanctions for children aged 15 and over. (Article 69 paragraph (2) SPPA Law). Types of sanctions Actions imposed are returned to parents/guardians, treatment in mental hospitals or social welfare institutions, obligation to attend formal education/training held by the government or private bodies/driver's license revoked for a year, repairing damage caused by the child's actions in conflict with the law. (Article 82 SPPA Law).

The types of criminal sanctions consist of principal punishment and additional punishment (Art. 71 SPPA Law). Principal punishments consist of warnings, sentences with conditions, job training, coaching in institutions up to imprisonment, while additional crimes of profits from the confiscation of crime or fulfillment of customary obligations.

A maximum of half of the maximum sentence of imprisonment for an adult if imposed on a child. Death penalty or life sentence cannot be imposed for children in conflict with the law. If the crime committed is punishable by death or life imprisonment, then the sentence imposed is a maximum imprisonment of ten years. Children will carry out coaching at LPKA until they are 18 years old. If the child has undergone half of the duration of coaching at LPKA and has good behavior, the child is entitled to parole. During the settlement process, children dealing with the law have the right to get legal assistance.

The use of imprisonment against children in conflict with the law is a last resort. Children in conflict with the law are subject to imprisonment if their circumstances and actions are deemed to endanger society.

Conclusion

In Indonesia, the principle of restorative justice has been applied in customary law with local mechanisms or community habits, the similarity of restorative justice with local mechanisms or community habits so that people can accept and apply it.

Retorative justice is based on a humanist perspective through diversion because dialogue is carried out to reach an agreement between perpetrators, victims, each family and society to jointly resolve cases of children in conflict with the law with an emphasis on recovery not based on retaliation.

Handling children in conflict with the law through a settlement based on restorative justice can reduce the negative effects on children's development besides guaranteeing and respecting the dignity of children and based on humanist values.

REFERENCES

[1] D. H. Jayani, "Kasus Anak Berhadapan Hukum (ABH) sebagai Pelaku (2020)," in *Kasus Kriminalitas Anak Didominasi Kekerasan Fisik*, 2021.

[2] S. Wahyudi, *Implementasi Ide Diversi dalam Pembaruan Sistem Peradilan Pidana Anak di Indonesia*. Yogyakarta: Genta Publishing, 2011. pp. 2.

[3] A. Ratomi, "Penyelesaian Anak yang Berkonflik dengan Hukum dalam Konteks Sosial Masyarakat," *De Jure : Jurnal Syariah dan Hukum*, vol. 5, no. 2, pp 143, 2013.

[4] G. Bazemore dan M. Schiff, *Juvenile Justice Reform and Restorative Justice: Building Theory and Policy from Practice*. pp. 41, Oregon: Willan Publishing, 2005.

[5] B. Waluyo, *Desain Fungsi Kejaksaan pada Restorative Justice, Ed. 1, cet. 1*, , Jakarta: Rajawali Press, 2016. pp 5-181.

[6] L. Mulyadi, *Sistem Peradilan Pidana Anak*. Bandung: Alumni, 2014, pp. 163.

[7] M. Wright, "Victim Offender Mediation as a Step Towards a Restorative System of Justice," in *Restorative Justice on Trial: Pittfalls and Potentials of Victim Offender Mediation International Research Perspectives, eds Messmer, H and Otto, HU*, Dordrecht: Kluwer Academic Publishers, 1992, pp. 525.

[8] Muladi, *Restorative Justice dalam Sistem Peradilan Pidana dan Implementasinya dalam Penyelesaian Tindak Pidana yang dilakukan oleh Anak-Anak*. Jakarta: BPHN, 2013, pp 9-11.

[9] A. Prakoso, *Pembaruan Sistem Peradilan Pidana Anak, cetakan II*. Yogyakarta: Aswaja Pressindo, 2016, pp. 162.

[10] D. E. Peachey, "Restitution, Reconciliation, Retribution: Identifying the Forms of Justice People Desire," in *Restorative Justice on Trial: Pitfalls and Potentials of Victim Offender Mediation-Internationa Research Perspectives, eds Messmer, H and Otto, H.U.*, Dordrecht: Kluwer Academic Publishers, 1992.

[11] United Nations Standard Minimum Rules for the Administration of Juvenile Justice, *The Beijing Rules*.

[12] Indonesia, *Undang Undang Republik Indonesia Nomor 11 tahun 2012 tentang Sistem Peradilan Pidana Anak*.

Language Shift among Madurese Speakers in Madura Island – Indonesia:
A Case at a Village in Bangkalan

Fauzan[1]

Introduction

Language variations in a bilingual or multilingual society can be originated within communication in the speech community. In a long run, this situation is believed to contribute language shift. Language maintenance and language shift have been paired for discussion about a particular language stability and change due to some sociolinguistics rationales. While maintaining the existing language means a consistent use or retention of a language in one or more speech communities, language shift refers to gradual process of replacing a language by another language.

If a speaker or a group of speakers moves to a new area and they use the language of the local speaker, there will be a language shift phenomenon that cannot be avoided by the speaker.

Language shift cannot be separated from the language function in the society. [1]–[3] argue that a particular language functions in a society along with the speakers' social roles. It explains that social roles are related to various social psychological aspects which are then detailed in the form of speech components which leads to the existence of language variations. The phenomenon of the use of language variations in speech communities is controlled by social, political, economic, cultural, and situational prestige factors [4].

Language Variations in Society

Sociolinguistics examines the relationship between language and society which links two fields that can be studied separately, namely the formal structure of language by linguistics and the structure of society by sociology. In Sociolinguistics study, language is not treated as it is in theoretical linguistic studies, but as a means of interaction in society. Sociolinguistics can be viewed as a relatively new discipline. It was originally formulated for the existence of seven dimensions in sociolinguistic research, namely social identity of speakers, identity of speech participants, social environment,

[1] Indonesian Language and Literature Department, University of Muhammadiyah Malang, fauzan@umm.ac.id

synchronic and diachronic analysis of social dialect, social assessment which are different by speakers about the behavior of speech forms, the level of linguistic variation, and the practical application of sociolinguistic research [5]–[7]. They were presented in the first sociolinguistic conference at the University of California, Los Angeles, in 1964.

[8] argues that sociolinguistics studies the relationship between speakers and listeners, various kinds of language and its variations, their use according to various determining factors, both linguistic and other factors, as well as various forms of language that live and are maintained in a society. This notion can be interpreted as the fact that sociolinguistics covers a broad field of study, not only concerning the formal form of language and language variations, but also concerning the use of language in society. The use of language is related to various factors, both linguistic factors and non-linguistic factors, such as socio-cultural factors. It means that each community group is unique in terms of sociocultural values and variations in the use of language in social interaction. Hence, the use of language in society is not monolithic, but varied, the language or languages owned by a speech community in their language repertoire always have variations.

Language Maintenance, Language Shift, and Language Loss

Language that is continuously spoken by a speech community becomes a result of a language maintenance. It happens if the community collectively determines to continue using the language that is commonly used. If citizens are monolingual and collectively do not want another language, they obviously maintain their pattern of language use. However, maintaining that language is often a feature of bilingual or monolingual communities. Language maintenance will occur if the community is diglossic. Contradictory to the previous fact, when the speech community begins to choose a new language in a realm that was originally reserved for the old language, that may be a sign that a shift is taking place [7]. In the same vein, [9] noted if a language is hardly maintained in a community or a community completely leaves a language to use another language, language shift occurred and the community members collectively choose a new language. The language is displaced to the other language as a result of language choice in the long term (at least three generations) and are collective (carried out by all community members). The community designates a certain domain for each language in such a way that the boundaries of the realm of a language are not exceeded or intruded by other languages.

According to[10] language shift involves events or gradual process group of speakers will experience complete language extinction. Language shift is closely related to the problem of language use by a speaker or a group of speakers. [11], [9], and [8] provide examples of language shifts. They range from moving from one speech community to another then using a different language and mixing with a new group and with a new language to adopting a language of a local population and abandon their own language. Dealing with its setting, language shift can occur in countries, regions or designated regions which facilitate people with a better social and socio-economic life. Therefore, language is shifted due to people movement for further education.

The shift or survival of a language is influenced by many factors. Industrialization and urbanization are considered as the main cause of language shift or language extinction [12]. Speakers decision in using particular language contributes as a factor of language shift which depend on number of speakers, community setting, as well as pressures because of political, social, and economic issues. In addition, a school's policy of introducing a second language is also an additional factor of language shift because students who are originally monolingual gradually become bilinguals and eventually leave or shift their first language [4]. Seminal studies about language shift also focus on the other factors of language shift such as age, gender, and frequent contact with other languages.

Furthermore, [13] stated that the loss of a language is marked by the loss of the regional language commonly used in everyday communication. This can be seen from the disappearance of habits such as fairy tale culture, telling children bedtime stories, and the malfunctioning of traditional institutions as strongholds of local culture and traditions. In addition, many of today's younger generations have neglected the customs that used to be culture and now old texts, fairy tales and sayings have become foreign [14], [15]. They prefer their gadgets and choose playing online games as their habit. When the language disappears and foreign languages replace the presence of the that language, the language is lost. For instance, when children first language is a national language, the indigenous, local, and regional language have lost.

Language Shift in Indonesian Contexts

In the context of Indonesia, language shift has been investigated by researchers to more than 700 local and indigenous languages that become the first language (L1) of 276.4 million populations. It is common that Indonesian use more than one

language in their daily life and choose one of them as their mother tongue language. Therefore, bilingualism or multilingualism is phenomenal. For this reason, the study of language selection in Indonesian society is connected to the problem of language use in bilingual or multilingual communities. The linguistic situation in Indonesian society is at least marked by the use of two languages, namely the regional language as the first language (mother tongue), Indonesian as the national language, and/or a foreign language. Studies on language selection in society like this prioritize speech aspects rather than language aspects. As an aspect of speech, the use of language varies relatively according to changes in elements in the socio-cultural context. Language shifts are caused by language functions which in a long time will slowly change over several generations. In regards with numbers of local and indigenous languages in Indonesia, language shift research also investigating language shift due to various dialects spoken in particular region.

In Bengkulu, Lampung, and Kuala Tanjung, language shift has been reported within families of Serawai-Serawai ethnic group in Bengkulu City. Historically, Serawai language which was spoken by 100 % of the first generation population was mastered only by 84-70% of the second generation started to extinct as it was only spoken 20% by the third generation. The language attitude towards the Serawai language in the Serawai-Serawai ethnic family in Bengkulu City is less (negative), because of gradual decrease of population mastering and speaking Serawai language. According to [14], when the attitude scale is between 20-39 with less (negative) criteria, the Serawai tribal family lacks a sense of pride or loyalty to the Serawai language.

An investigation about Lampung language evidenced potential language shift in Lampung because its native speakers are not confident in using Lampung language in communicating [16]. In addition, they are not able to influence immigrants to use Lampung language. In fact, language maintenance was only conditioned for the sake of education with no control to its usage in the society. Therefore, the government should consider the importance of this language maintenance by intensively facilitating innovative Lampung language learning and socializing the language in many activities with Lampung nuances. All elements, namely the government, educators and the community, must work together and contribute to the maintenance of the Lampung language. Supports should be given to hold the language extinction by functioning the language in socio-cultural life and internalizing it into society character values.

[13] argues that language shift or maintenance takes place in a family by parents' agency in determining the language used for family communication. As proven by the results of the questionnaire analysis, in which almost all of the respondents' answers stated that they did not use the local language in communicating with family, relatives, and other people, parents' role contributes to the language shift experienced by children in Kuala Tanjung. Despite the parents' positive attitude towards the language, this attitude does not contribute to the maintenance of the local language in Kuala Tanjung itself due to fact that Indonesian language is the lingua franca of various ethnic groups living in Kuala Tanjung. As a result, the absence of children using local language in Kuala Tanjung, some respondents of his study confirmed that they do not understand the language either actively or passively.

In an island like Madura – East Java province, language shift is feasible because Madurese is spoken by all populations and dialects are practiced by those who live in different geographical settings such as eastern area -Sumenep and western area – Bangkalan and Pamekasan . People who live in the city speak modern dialect and those who live in the villages speak traditional dialect [17]. Particularly in Bangkalan which is geographically bordered by Sampang and Surabaya Regencies, language shift occurs because these areas are inhabited by multi-ethnic groups like Madurese, Javanese and Chinese.

Language and Dialects Spoken in Madura Island

Madurese is the regional language used by the populations living in Madura island as well as out of the island. Speakers of this language are estimated to reach more than 7% of the total population of the Indonesia. About three to four million Madurese speakers live in the island, while nine to ten million Madurese speakers live in Java island. In Java, Madurese speakers could be found in Jakarta, Kalimantan and Sulawesi [8]. As one of the most popular regional language, its position lays in four after Javanese, Malay, and Sundanese. Therefore, this language needs to be maintained, fostered, and developed especially in terms of its role as a means of developing regional cultural sustainability as a supporter of national culture.

Strategies have been practiced for Madurese language maintenance, such as (1) revitalizing the Madurese as a language of daily communication (2) standardizing the language, (3) promoting language and culture through seminars, symposiums and conferences discussing about the language (4) promoting writing using the language, (5) revitalizing Madurese language books, (6) aborting

Madurese vocabulary into the vocabulary of the national language, and (7) conserving Madurese through research or studies in Madurese language and literature.

Madurese is famous with its language formation processes. One of the word formation processes in Madurese is affixation. The process involves forming new words through adding affixes in the forms of bound morphemes which are derived from basic forms which can change the grammatical meaning of the other morphemes they are attached to and root new word's meaning [18]. In this case, linguistic units are involved with one another. In the Madurese affixation process, there are special rules in which a morpheme has allomorphs that are adapted to its environment. In Madurese, the morphophonemic process includes several elements, namely adding phonemes, doubling, and changing phonemes.

For better understanding about the process language shift on Madurese and its dialects, southern coastal area of the island, Bangkalan was selected as the setting of finding data about language shift. The selection of the speech community is based on fat that language shift can be affected by at least two languages that population speak, Madurese and Indonesian language. In addition, the community has experienced communication motilities following their professions like farmers, employees, teachers, traders, and entrepreneurs. Their mobilization is very high because they live close to Surabaya, the capital city of East Java province. In addition, because their culture and traditions ate unique because of acculturation between Javanese and Madurese cultures. Hence, this article focus on how a dialect spoken by villagers from one of the areas in Bangkalan who experienced Madurese language shift in forms of affixations and reduplications. The following sections provide the examples of the language shifts recorded from dialogs in different settings.

Affixation Shift in Madurese
Affixation Shift in Madurese Prefixes

The following excerpt elucidates affixation shift in Madurese prefix.

Excerpt 1.
Shofi   : "Berapa *se otang* Bu?"
           (How many persons owed?)
Bu Tin   : "Dua orang."
           (Two persons.)
Shofi   : "Kok dikasih."
           (**Why did you allow it?)**

Context: Conversation between *Shofi* (a Kwanyar Health Center official) and *Bu Tin* (a coffee seller) in a coffee shop. Shofi shifted the language by switching code from Indonesian to Madurese in the word '*otang*'.

Except 1 shows a language the affixation shifts of Madurese prefix *a-*. This Madurese prefix, *a-* should be followed by a verb, in this case is *otang*. If *a-* is followed by *otang* it becomes *aotang* which mean indebted. The absence of *a-* in excerpt 1 indicates the Madurese prefix shift as it is affected by the same verb in Indonesian *hutang* or *utang*. Additionally, the following excerpt shows different affixation shift in Madurese prefix.

Excerpt 2.

Shofi   : "Bu Tin, krupuk udangnya *bellih paserah*?"
    (*Bu Tin*, who bought Krupuk Udang?)
Bu Tin   : "Pak Romli Pak."
    (Mr. Romli.)
Shofi   : "Nggak ada lagi?"
    (You don't have anymore?)
Context: Conversation between *Shofi* (a Kwanyar Health Center official) and *Bu Tin* (a coffee seller) in a coffee shop. *Shofi* shifted the language by switching code from Indonesian to Madurese in the word *'bellih'*.

Excerpt 2 shows a language the affixation shift of Madurese prefix *e-*. This Madurese prefix, *e-* should be followed by a verb, like *bellih*. *e-* which is followed by *bellih* indicates passive voice which means purchased. According to affixation in Madurese, Shofi's question should be "Bu Tin, krupuk udangnya *ebellih paserah*?" In fact he avoids to use *e-* because the word has been shifted by the Indonesian.

Affixation Shift in Madurese Suffix

There is a language shift in the use of Madurese ending affixes as shown in the following quotation.

Excerpt 3.

Shofi   : "*Kala'* yang banyak Bu krupuknya!"
    (Take me more Krupuk Bu.)
Bu Tin   : "Semua Pak?"

(All, Sir?)
Shofi   : "Ya."
             (Yes.)
Context: Conversation between *Shofi* (a Kwanyar
             Health Center official) and *Bu Tin* (a coffee
             seller) in a coffee shop. *Shofi* shifted the
             language by switching code from Madurese
             to Indonesian in the word *'kala''*.

Excerpt 3 shows a language shift in the affixation of Madurese suffix. As a command word, *kala'* should be added by suffix *–aghi*. *kala'aghi* which means take it, should be used grammatically "*Kala'**aghi*** yang banyak Bu krupuknya!". Similar to prefixes case, the absence of suffix like *'aghi* shows the language shift as affected by Indonesian. Similar use of Madurese suffix is shown by the following excerpt.

Excerpt 4.
Shofi   : "Bang, kopi!"
             (Brother, coffee.)
Romli   : "*Trakter* Pak?"
             (Would you treat me Sir?)
Shofi   : "Ya Bang"
             (Yes.)

Context: Conversation between *Shofi* (Kwanyar Health
             Center official) and *Romli* (Kwanyar Health
             Center official) in a coffee shop. *Shofi* shifted
             the language by switching the code from
             Madurese to Indonesian in the word '*trakter*'.

Excerpt 4 indicates an affixation shift of the use of Madurese suffix *-en*. Suffix *–en* should be used in the sentence "*Trakter**en*** Pak?" which means a request to treat. Based on this expression, there is a language shift in Madurese suffix.

Reduplication Shift in Madurese
Reduplication Shift in Madurese Plural
Complete reduplication in Madurese is shown by the following quotation.
Excerpt 5.
Shofi   : "Kok tidak dicabut *rebbha-rebbha* Bu?"
             (Why don't you mow the grass?)

Bu Tin   : "Tidak ada waktu Pak." **(I don't have time Sir.)**

Shofi   : "Pakai mesin Bu." **(Use the machine.)**

Context: Conversation between *Shofi* (a Kwanyar Health Center official) and *Bu Tin* (a coffee seller) in a coffee shop. *Shofi* shifted the language by switching code from Indonesian to Madurese in the word 'rebbha-rebbha'.

Excerpt 5 displays a reduplication shift in Madurese. This full reduplication indicates plural form of a word *rebbha* which means grass. Based on Madurese grammar, reduplication is formed by clipping the first syllable of a word and adding it with the complete form of the word like *bha-rebha*. The word *rebbha-rebbha* should be substituted according to Madurese grammar: "Kok tidak dicabut *bha-rebbha* Bu?" The existing reduplication shift is called as a complete reduplication.

Reduplication Shift in Madurese Affixes

There is a language shift in the use of Madurese affix reduplication as shown in the following quotation.

Excerpt 6.

Shofi   : "Kamu itu *matao-matao* Pak!" **(You pretend to know it, Sir)**

Romli   : "Tidak Pak!" **(No, Sir!)**

Shofi   : "Ah ...." **(Ah...)**

Context: Conversation between *Shofi* (Kwanyar Health Center official) and *Romli* (Kwanyar Health Center official) in a coffee shop. *Shofi* shifted the language by switching the code from Madurese to Indonesian in the word *'matao-matao'*.

Excerpt 6 explains that the word *matao-matao* denotes a repetition. In Madurese grammar, *matao-matao* is the unacceptable form of reduplication. The word *matao-matao* should be reduplicated as *ao-matao* which means pretending to know. The correct expression should be "Kamu itu *ao-matao* Pak!"

Conclusion

To sum up, the shift in the form of the Madurese language at Pesanggarah Kwanyar Bangkalan Village includes affixation shifts (use of prefixes and suffixes) and reduplication shifts (complete and suffix). The affixation shifts in Madurese at Pesanggaran Kwanyar Bangkalan Village include the use of prefixes (*a-* and *e-* Madurese prefixes) and the use of suffixes (*–'aghi* and *–en* suffixes). Moreover, the reduplication shifts in Madurese practiced by the villagers at Pesanggarah Kwanyar Bangkalan include the use of complete word's reduplication in Madurese plural and affixes.

References

[1]   J. Fishman, *Do not leave your language alone: The hidden status agendas within corpus planning in language policy*. 2012.

[2]   S. Nawaz, A. Umer, F. Anjum, and M. Ramzan, "An Analysis of Factors Involved in Language Shift," *Glob. J. Hum. Soc. Sci. Linguist. Educ.*, vol. 12, no. 10, pp. 73–80, 2012.

[3]   O. Winarti, "Language Shift of Krama to Bahasa Indonesia among Javanese Youths and it's Relation to Parents' Social Class," *J. Stud. Komun. (Indonesian J. Commun. Stud.*, vol. 2, no. 3, p. 290, 2018.

[4]   L. Forsman, "Language shift in Gammalsvenskby: A nexus analysis of the shift to Ukrainian in a traditionally Swedish-speaking community," *J. Socioling.*, vol. 19, no. 1, pp. 37–61, 2015.

[5]   A. C. Cohn and M. Ravindranath, "Local languges in Indonesia: Language maintenance or language shift?," *Linguist. Indones.*, vol. 32, no. 2, pp. 131–148, 2014.

[6]   M. Ponsonnet and M. Vuillermet, "Introduction," *Stud. Lang.*, vol. 42, no. 1, pp. 1–16, 2018.

[7]   J. Smagulova, "Early language socialization and language shift: Kazakh as baby talk," *J. Socioling.*, vol. 18, no. 3, pp. 370–387, 2014.

[8]   Y. Thahara and A. Y. Firdaus, "Pemertahanan Bahasa Madura di Lingkungan Jawa (Studi Kasus Pedagang Asal Madura di Surakarta)," *Diglossia*, vol. 11, no. 2, pp. 29–40, 2020.

[9]   E. M. Sagimin, "Language Shift and Heritage Language Maintenance Among Indonesian Young Generations : a Case Study of Pamulang University," *J. Lang. Lit. Cult. Stud.*, vol. 4, no. 1, pp. 21–37, 2020.

[10]   R. B. Febriani, "the Roles of Language Shift in English Language Teaching," *Vis. J. Lang. Foreign Lang. Learn.*, vol. 6,

no. 1, pp. 29–36, 2017.

[11]   I. Rosdiana, "Peer-Oriented Intervention : a Social Factor of Language Shift in Elementary," pp. 14–23, 2012.

[12]   R. Henne-Ochoa and R. Bauman, "Who Is Responsible for Saving the Language? Performing Generation in the Face of Language Shift," *J. Linguist. Anthropol.*, vol. 25, no. 2, pp. 128–149, 2015.

[13]   N. Sahril, "Pergeseran Bahasa Daerah Pada Anak-Anak di Kuala Tanjung Sumatra Utara," *Ranah J. Kaji. Bhs.*, vol. 7, no. 2, p. 210, 2018.

[14]   Y. Paulina and R. Kusmiarti, "Pergeseran Dan Sikap Bahasa Pada Anak Dari Keluarga Suku Serawai-Serawai Di Kota Bengkulu," *Lateralisasi*, vol. 7, no. 2, pp. 85–95, 2019.

[15]   D. Septiana, A. Indah Yulianti, L. Karyani, B. Bahasa Kalimantan Tengah, and B. Bahasa Sulawesi Selatan, "Language Shift and Vitality of Paku Language in East Barito," *Int. J. Multicult. Multireligious Underst.*, vol. 7, no. 2017, pp. 403–410, 2020.

[16]   N. W. Putri, "Pergeseran Bahasa Daerah Lampung Masyarakat Kota Bandar lampung," *J. Penelit. Hum.*, vol. 19, no. 2, pp. 77–86, 2018.

[17]   M. H. Effendy, "Tinjauan Deskriptif Tentang Varian Bahasa Dialek Pamekasan," *Okara*, vol. 1, no. 6, pp. 64–74, 2011.

[18]   H. B. Mardikantoro, "890-1492-2-Pb," *Humaniora*, vol. 19, no. 1, pp. 43–51, 2007.

Counseling, Solution for Stunting Manifestations In Teeth and Mouth

Fitriyanti Fitriyanti

Introduction

It's been almost three years since the COVID-19 pandemic passed. This condition can certainly disrupt the economy of the family, society, and even the world. This situation can lead to a decrease in family income. If this situation lasts for a long time, it can cause nutritional disorders in the community which is one of the risk factors for stunting. As seen in the research on the prevalence of stunting under five in the Regency/City in Jambi Province in 2021. It was found that Muaro Jambi Regency had the highest prevalence of stunting under five in 2021. Unwittingly, 2021 had already begun the COVID-19 pandemic. Of course, further research is needed to determine whether the COVID-19 pandemic is related to the emergence of stunting [1].

Stunting is a worldwide problem. Generally occurs in poor countries to developing countries. These problems are related to multiple aspects, ranging from educational problems to economic problems. [2]. Stunting cannot be treated. However, Stunting can be prevented. Preventing stunting is very important. Because the impact is very detrimental. In infants with stunting problems, it can lead to delays in the development of children that will take place in their lives. The impact of stunting can have short-term and long-term impacts. Short-term impacts that occur in infants include Vulnerability to diarrheal diseases, Upper Respiratory Tract Infections (ARI), and slow growth and motor skills. While the long-term impacts that can arise include: A decrease in the body's immunity which causes a high risk of disease; The emergence of intellectual decline that has an impact on achievement in school, a decrease in productivity, and the risk of giving birth to babies with low birth weight or LBW [3].

So stunting can harm the future of children, society, and even a country [4]. Stunting in children is a condition of failure to thrive caused by chronic malnutrition. Stunting cannot be taken lightly. If not addressed, this condition can interfere with brain development and mental abilities, and the child's level of intelligence [4]. Stunting is a

shared responsibility between the government, the community, the private sector, and non-governmental organizations (NGOs). We should move together towards reducing stunting according to their respective capacities. The role of community empowerment in the form of Community-Based Health Efforts (UKBM) plays a very important role in eliminating stunting. Like Posyandu and other UKBM.

A child is called stunted if his height is shorter than other children his age or if his height and body length are minus 2 from the Multicentre Growth Reference Study standard or the median standard deviation of the WHO child growth standard. In addition, the Indonesian Ministry of Health stated that stunting is a child under five with a z-score of less than -2SD/standard deviation (stunted) and less than -3SD (severely stunted) [4]. In 2019, a survey proved that around 30 percent of Indonesian children under five were stunted [4]. In 2020 Indonesia is ranked second in the highest number of stunting in Southeast Asia [5]. According to WHO, a country has a chronic status if the prevalence rate is above 20%. Thus Indonesia is placed in a chronic status. According to Indonesian media. com data from the Ministry of Health stated that about one in three Indonesian toddlers are stunted, 16.5% of children in Jakarta are stunted [6]. Of course, this situation is a problem that can cause loss generation [2], physically these children are a shorter height than other children of their age, but their brain development is disrupted. For more details, let us discuss the following discussion.

Discussion
Etiology of Stunting

Edit in children is caused mainly by the poor nutritional status of pregnant women and infants. The causes of poor nutrition are various, including Lack of education about nutritional intake during pregnancy; Malnutrition from newborn to two years of age; Poor maternal health; Poor environmental sanitation and hygiene; and infectious diseases [4]. Each of these etiologies of malnutrition can stand alone or be a composite of each of these etiologies. Thus the nutritional status of pregnant women and infants greatly determines the development and health of children. So that the health of pregnant women, infants, and children with their nutritional status is a national

and world priority program. Because the condition is so strategic for the future.

Stunting Prevention Solution

Various stunting prevention solutions include: protein consumption greatly affects the height and weight gain of children over 6 months. Children who received a protein intake of 15 percent of the total caloric intake needed were shown to be taller than children with a protein intake of 7.5 percent of total calorie intake. Children aged 6 to 12 months are recommended to consume a daily protein of 1.2 g/kg body weight. Meanwhile, children aged 1-3 years need a daily protein of 1.05 g/kg body weight [4]. Protein intake during infancy and childhood is a determining nutrient in the growth and development of children which will be related to the incidence of stunting. Mothers need to understand this education to prevent stunting cases.

Prevention of Stunting in Children

Some solutions to prevent stunting in children include: Performing regular pregnancy check-ups; Avoiding cigarette smoke and fulfilling good nutrition during pregnancy including eating a balanced healthy menu, and adequate intake of iron, folic acid, and iodine; Making regular visits to the doctor or other health care center to monitor the child's growth and development, namely: every month when the child is zero to 12 months old; every three months when the child is three to six years old; every six months when the child is three to six years old; every year when the child is six to 18 years old; Follow the basic immunization program; Provide exclusive breastfeeding until the child is six months old and provide adequate complementary feeding [4].

Interventions to Reduce Stunting Prevalence

The decisive intervention to reduce the prevalence of stunting is the need to do it in the first thousand days of life (HPK) of infants and children so that this is called a key intervention in the form of child feeding practices and maternal nutrition [2]. Exclusive breastfeeding in the first six months of life is breastfeeding without providing other food and drinks, the source of nutrition for babies

only comes from breast milk. Breast milk is a liquid that contains proteins and antibodies that are not found in formula milk. Thus, breast milk is a very strategic food source for the growth, development, and nutritional status of infants.

MPASI is given at the age of more than six months that: To introduce new types of food; Sufficient nutritional needs of infants who can no longer be supported by breast milk; to form the immune system and the development of the immune system against eating and drinking. The provision of MP-ASI should be by the standards. If this is done unstandardly, such as mothers who have inappropriate parenting patterns, where there is still poor weaning of food for babies and there is even too early complementary feeding to babies before 6 months by the mother. Research conducted by Noorhasanah [10] states that the nutritional needs of infants aged over 6 months must be given the right and correct complementary feeding to help optimal growth and development.

Stunting Manifestations in Teeth and Mouth

Manifestations of Stunting in the Teeth and Mouth, due to lack of nutrition will have an impact on the organs and parts of the body such as:

Reduced Saliva Function

Normally saliva acts as a buffer; for cleaning, anti-solvent, and anti-bacterial oral cavity. With reduced salivary function, of course, there will be disturbances in the teeth and mouth in the form of an increased risk of caries associated with reduced salivary anti-solvent function. So that tooth enamel is easily dissolved by acids produced from the reaction of food residues containing carbohydrates. These carbohydrates react with oral microorganisms to produce acid. The surface of tooth enamel is not resistant to these acids. Thus forming caries on the enamel surface. Supported by research in Kertak Hanyar District, Banjar Regency which found a relationship between stunting and the level of dental caries in Kindergarten students [7].

Inhibits the Growth and Replacement of Teeth (Eruption)

Stunting can inhibit tooth growth because malnutrition will affect the body's organs and parts, one of which is impaired growth and tooth turnover (eruption) of teeth. Supported by research conducted in Bantul, Yogyakarta Special Region of 60 students aged six to seven years, which found there was a relationship between malnutrition and tooth eruption [8]. Dental caries if not treated will continue to become the rest of the roots of the teeth, which over time shake. It is an indication of retraction or disappears on its own. So of course it will interfere with the process of chewing food. This condition can lead to disruption of the balanced nutrition needed by the body. So that it will interfere with the growth of teeth and tooth replacement or tooth eruption.

Impaired Jaw Growth and Development

More broadly than the stunting case, it is related to impaired child growth and development. This will result in impaired growth and development of the child's body and organs as a whole. This will disrupt the growth and development of the jaw. The child's jaw will be stunted in its development so it will look small in size. It doesn't just end there. But the impact can continue to get worse. Namely the emergence of the condition of teeth with a crowded arrangement or teeth that are irregularly arranged or stuck together. This situation requires further treatment of the jaw. That is in the form of jaw correction therapy for children.

Crowded Tooth Disorder

Small jaw size. Due to stunted growth and development of the jaw. The consequences are wider than the child stunting case. cause in children who have large teeth that are inherited from their parents. With the small jaw size. Of course, the space available for these large teeth is insufficient. This causes teeth that are irregularly arranged or stuck together. This condition is known as crowding teeth. The problem does not stop here. There will be another situation that is the impact of crowding teeth in the form of a crisis of confidence in the child.

Prevention of Dentistry for Stunting

There are several preventive dentistries for stunting such as the following:

Caries Prevention

Prevention of early childhood caries begins before the baby is born or prenatally. Pregnant women are advised to maintain a balanced diet with high nutritional value equipped with ante-natal care, especially in the third trimester and in the first year of the baby's life. Because at that time the tooth enamel is undergoing maturation. With the optimal maturation of tooth enamel when the fetus is in the womb. It is unlikely that carious spots will appear on the surface of the child's tooth enamel. What else is accompanied by good habits of mothers when breastfeeding babies? Namely with the correct position of breastfeeding the baby using breast milk. Because with this position and using breast milk, there is less chance of caries on the surface of the child's tooth enamel. Because babies breastfeed with breast milk accompanied by drinking water from a spoon or bottle before the baby falls asleep. Because babies don't drink formula milk that uses sugar sweeteners.

Early Childhood Caries

Some things to consider in breastfeeding with the correct feeding position are: The baby's head and body form a straight line; The baby's face is facing the mother's breast so that the baby's nose is facing the mother's nipple; The baby's body is close to the mother's body or the baby's stomach is attached to the mother's stomach; The mother hugs the baby completely [9]. Incorrect breastfeeding position and use of a pacifier bottle. Then cariogenic bacteria namely Streptococcus Mutans and Lactobacilus. These bacteria attach to the enamel and metabolize carbohydrates that come from the rest of the milk from the pacifier bottle attached to the tooth surface which can lower the pH in the mouth so that it is acidic and will encourage demineralization, i.e. acid will dissolve the tooth enamel surface to form caries.

Eat Breast Milk Substitute with Balanced Nutrition

After the baby is 6 months old, they can be fed breast milk substitutes (MPASI), which of course have a balanced nutritional value, for example in the form of porridge, etc. If you need a sweet taste for the MP-ASI, use natural sweet flavors such as using young corn, bananas, etc. Avoid using sugar. because it contains carbohydrates. If the cleaning of leftovers containing sugar cannot be carried out optimally. Like brushing your teeth or at least gargling with water after eating foods that contain sugar. Then the remaining food will react with oral microorganisms. The product of this reaction is an acid. The tooth enamel surface is not resistant to acid. So that caries will appear on the surface of the teeth of infants and children.

Counseling, Solution for Stunting Manifestations in Teeth and Mouth

Stunting is a chronic malnutrition disease that cannot be cured, we can only prevent it through specific interventions in the first thousand days of life, such as specific interventions to address nutritional problems of pregnant women; breastfeeding mothers 0-6 months; breastfeeding mothers 7-23 months; children 0-6 months; children 7-23 months. Nutritional problems can be solved if you understand the problem. So that nutritional problems can be identified, do nutritional counseling to individuals and families. Perform troubleshooting so that behavior changes occur. Nutrition counseling is carried out by nutritionists. It is a form of approach used in nutritional care, to help individuals and families gain a better understanding of themselves and the problems they face. As we have discussed. Conduct field visits to the homes of children who are stunted. Followed by nutritional counseling conducted by a nutrition counselor. Counselors must be able to: Maintain good relationships from the start with clients because clients will find it easier to talk to friendly people; Regarding client's requirement; Foster empathy and a sense of comfort for the client, position oneself in the client's position, by understanding what the client feels and experiences; Encourage the client to choose the best solution in a given situation; Provide information about the resources that clients need, in order to make good decisions; Pay special attention; Maintain client confidentiality and trust [9]. It is hoped that with counseling on nutritional problems in stunting children, the causes of chronic nutritional problems can be identified. So that interventions can be

planned to be given. In accordance with the causes of these chronic nutritional problems.

Conclusion

Stunting cases can manifest in the teeth and mouth. Prevention of stunting as well as prevention of stunting manifestations in the teeth and mouth. Stunting is caused by chronic nutritional disorders in infants, which will have an impact on the growth and development of children. Nutritional problems such as chronic nutritional disorders can be overcome if you know the problem. To know the nutritional problems. Do counseling. Nutrition counseling is carried out by a nutrition counselor. Nutrition counseling is a form of the approach used in nutritional care to help himself and his family to gain a better understanding of himself and the problems he faces. Prevention of stunting manifestations in the teeth and mouth can only be done during the prenatal life of the fetus in the womb. By completing the prenatal life of the fetus with prenatal care. So it is hoped that during prenatal care there will be perfect maturation of tooth enamel. Thus, there is no yellow-brown form resembling caries on the enamel surface of the child's teeth. In addition to this, getting used to the mother breastfeeding the baby in a normal position. If the mother is breastfeeding with bad habits while sleeping. Risk factors for the appearance of caries on the enamel surface of children's teeth.

References

[1]   Kusnandar, V. B. Ini Wilayah Jambi dengan Prevalensi Balita Stunting Terbesar pada 2021, [Online], Available : https://databoks.katadata.co.id/datapublish/2022/07/19/ini-wilayah-jambi-dengan-prevalensi-balita-stunting-terbesar-pada-2021 (accessed November 8, 2022).

[2]   Juarni, Ketaren O, Janno Sinaga N. Faktor-Faktor yang Berhubungan dengan Kejadian Stunting di Wilayah Kerja Puskesmas Suka Mulia Kabupaten Nagan Raya Tahun 2022 Factors Related to Stunting in the Work Area Regency House Puskesmas Great Nagan 2022. vol. 8. n.d.

[3]   Kementrian Kesehatan RI. *Warta Kesmas Cegah Stunting Itu Penting*. 2018.

[4]   BAPPEDA, S. A. (2020 Oktober 14), Mari Kenali Stunting dan Pahami Cara Pencegahanya, [Online], Available: https://bappeda-litbang.banyuasinkab.go.id/mari-kenali-stunting-dan-pahami-cara-pencegahanya/ (accessedNovember 8, 2022).

[5]   Mutia, Annissa. (2021, November 25), Prevalensi Stunting Balita Indonesia Tertinggi ke-2 di Asia Tenggara (2020), [Online], Available: https://databoks.katadata.co.id/datapublish/2021/11/25/prevalensi-stunting-balita-indonesia-tertinggi-ke-2-di-asia-tenggara (accessed November 8, 2022).

[6]   Saragih, Selamat. (2022 Maret 12), Komunitas Banteng Muda Ikut Atasi Penanganan Stunting di Jakarta, [Online], Available : https://mediaindonesia.com/megapolitan/477603/komunitas-banteng-muda-ikut-atasi-penanganan-stunting-di-jakarta (accessed November 8, 2022).

[7]   T. Rahman, R. Adhani, and Triawanti, Hubungan antara Status Gizi Pendek (Stunting) dengan Tingkat Karies Gigi, *Dentino J. Kedokt. Gigi,* vol. 1, no. 1, pp. 88–93, 2016..

[8]   A. D. Rahmawati, H. Retriasih, and A. Medawati, Hubungan antara Status Gizi dengan Status Erupsi Gigi Insisivus Sentralis Permanen Mandibula The Relationship between Nutritional Status and the Status of the Eruption of Permanent mandibular central incisors, *Idj*, vol. 3 No. 1, pp. 16–21, 2014.

[9]   Fitriyanti, Meilinisari, S. M. Rahmawati, R. M. Marbun, C. H. Dumaria, and Suharyati, "Perawatan kesehatan gigi dan mulut bayi dan balita oleh ibu melalui kader posyandu 1," in *Prosiding Seminar Nasional Pengabdian Kepada Masyarakat (SNPPM2021),* 2021, Vol. 2 No 1, pp. 375–383, [Online] Available: http://journal.unj.ac.id/unj/index.php/snppm%0AISBN 978-623-96178-2-0 Permasalahan.

[10]   N. I. Tauhidah, Faktor-Faktor yang Berhubungan Dengan Kejadian Stunting Pada Balita Di Wilayah Kerja Puskesmas Tatah Makmur Kabupaten Banjar. *Journal of Midwifery and Reproduction., 4*(13). 2020. https://doi.org/10.35747/jmr.v4i1.559.

[11]   H. Gunardi S. Handryastuti T. Prawitasari *Stunting, Pencegahan, Diagnosis dan Tata Laksana Terpadu.* Jakarta: Ikatan Dokter Anak Indonesia; n.d.

Legal Protection of Women in the Distribution of Goni-Gini Assets

Hamdan Azhar Siregar[1], Otom Mustomi[2]

Introduction

According to Ter Haar Bzn in his book the principles and structure of customary law, giving the notion of marriage is nothing but a matter of relatives, family affairs, community affairs, personal affairs of one another in very different relationships [1].

In customary law, one of them is the East Sumatra Malay custom, where the purpose of marriage is not only to carry on offspring or to become a family but is more noble than that. Where the ethnic Malays of East Sumatra are people who are obedient to their religion (religion of Islam). Where the purpose of marriage according to them is a religious order where marriage is seen as worship.

In the Malay community of East Sumatra, divorce rarely occurs, however, it does not rule out the possibility of divorce according to custom because it fulfills the provisions of syara'. So regarding this divorce custom it is adjusted to the provisions of syara' law. Usually the occurrence of divorce is caused by the lack of understanding between husband and wife and can no longer be reconciled by both sides of the family.

If a divorce has occurred, the assets they acquired during the marriage are adjusted to the sharia law. In East Sumatra, especially in Langkat District, there is a method of marriage called union marriage (agreement). This method actually exists in other areas that inhabit the Mealyu Coast of East Sumatra, but not as strictly as it is implemented in the Langkat area.

In the Malay community of East Sumatra, if a union marriage is held, then at the time of Kabul consent it is made clear that the jointly acquired assets or assets acquired while living together in the event of a divorce are divided in half first, half belongs to the husband and the other half belongs to the wife.

There are times when the East Sumatran Malay community divides the company's assets in three parts, by means of 1/3 for the wife and 2/3 for the husband, such as the distribution of a shoulder

[1] Master of Law Study Program, University Islam Jakarta, hamdan_sir@yahoo.co.id
[2] Faculty of Law Study Program, University Islam Jakarta, otommustomi@gmail.com

bag carried out by the customary law community in East Java. This method is carried out to see the extent to which the role of the wife participates in finding joint property.

The emergence of this distribution pattern is seen from the aspect of collecting assets. This pattern of collection can be seen from the contribution of the parties in collecting assets. This pattern determines how much the rights to get inheritance. This is what causes injustice in the distribution of inheritance, even though in the Marriage Law, it is not a requirement to get an inheritance, but if the property was acquired during life together it is joint property and according to the Marriage Law it is still divided in half.

In Law Number 1 of 1974 concerning Marriage in Article 37 states that if the marriage is broken up due to divorce, joint assets are regulated according to their respective laws. So that all laws governing inheritance apply in society, depending on which law the community wants to use. Therefore, when viewed from customary law and laws governing the division of corporate or joint assets in the case of divorce, it appears that there is injustice to women or wives in their distribution, so there is a need for legal protection for women or wives so that there is justice in the distribution of assets. gono-gini or shared property.

Discussion
Distribution of Joint Assets or Community Assets According to Customary Law

In the Customary Law of the East Sumatra Malay Community, if there is a divorce, the joint property or what is known as the company property is divided in two ways, first, the company property is divided in two, where 1/2 is for the husband and 1/2 is for the wife. The second way is that the company's assets are divided into three, where 2/3 is for the husband and 1/3 is for the wife. This division is seen to what extent the woman or wife participates in the collection of the company's assets or joint assets.

The distribution of the company's assets is divided in half

In the Malay community of East Sumatra, in terms of the distribution of company assets or joint assets, it is still strongly influenced by customary law. This can be proven from the facts, we often find this in the distribution of company assets in the Malay, East Sumatran community. According to East Sumatra Malay Customary if a husband and wife divorce occurs, the company's assets or joint assets can be divided in half.

The same thing is also the opinion of the community that the writer met in Labuhan Batu Rantau Prapat, in the Malay community of East Sumatra if a divorce occurs between husband and wife, the fixed assets are divided in half. It is also seen whether the company's assets are collected from the results of husband and wife collaboration, seen in terms of farming, fishing, gardening, or others. The main factor in the distribution is the extent to which the woman or wife participates in collecting the company's assets.

In the Malay community of East Sumatra, the existence of marriage does not automatically result in a mixture of joint assets. However, the property of each husband and wife still belongs to each other. Items brought by husband and wife are commonly called original assets. These items can be items owned by a husband and wife before and after the marriage bond. Items owned by the husband and wife before and after the marriage bond can be in the form of:

A. Goods acquired by inheritance
B. Items obtained by giving parents
C. Items obtained by giving other people

The goods that arise in the marriage bond are:

A. Goods that each husband or wife obtains the property on their own without the help of a marriage partner
B. Items obtained due to inheritance from deceased parents or grants.

If the goods are obtained by gift, be it from parents, heirs, or other people, the position of these goods remains the property of each husband and wife. But if the goods they obtain from the results of cooperation between husband and wife then these goods become joint property.

The distribution of the company's assets is divided by three

In the Malay Community of East Sumatra, if a husband and wife divorce occurs, the local customary law applies. In East Sumatra Malay Customary Law if a husband and wife divorce occurs, it can be divided by dividing it into 3 parts.

The distribution of community assets or joint assets by dividing by three in the customary law of East Sumatra Malays is done by looking at how much the role of the wife participates in working in the context of collecting joint assets.

Among the Malay people of East Sumatra, where the majority of their lives are fishermen, farming, gardening and employees, only a small number of them work as traders. If the husband's position as a

civil servant is dominant as a seeker for daily living needs and purchases of household goods, jewelry, and gardens. While the wife only stays at home as a housewife.

If in their household there are disputes or commotions that end in divorce, then in accordance with local customary law for the division of the company's assets or joint assets, it is seen first how far the wife has a role in collecting the company's assets or joint assets. If the wife only lives at home as a housewife, while the husband works, then the distribution is carried out according to local customary law. Where the wife gets 1/3 of the joint property, while the husband gets 2/3 of the joint property.

However, the Malay East Sumatran customary law system can no longer be maintained, because after the emancipation of women women were able to do men's work. Sometimes the wife's salary is even higher than the husband's. So this will lead to injustice in the distribution of company assets or joint assets if there is a divorce according to Malay East Sumatran customary law. Although indeed not all women can be like that because it is not in accordance with their nature as women.

But nowadays there are new developments where the wife takes an active role even at home, for example taking care of the children, keeping the husband peaceful, so here with a sense of justice the wife gets an equal share of the joint property.

The relationship between the company's assets and faraid in the case of divorce and death

Usually, the emergence of company assets or joint assets begins when the marriage lasts until the husband and wife divorce, in this case either the death or divorce. If this happens in marriage, it can be concluded that between husband and wife there has been a legal relationship. This means that if the above has occurred, then the settlement is through legal means, both written and unwritten laws.

If there is a divorce between husband and wife, in this case, of course, it means divorce. Goods or property that they acquire while living together in marriage must be divided in half.

In terms of the division of assets in the East Sumatran Malay community, there are two ways, the first method can be divided into two, and the second method can be divided into 3. The division which can be divided by three here looks at the extent to which the role of the wife participates in the search for the company's assets or joint assets. Even though at present the existence of this method is less attractive to the Malay community of East Sumatra, due to which the women already feel that without their presence it is impossible for the

husband to work peacefully, besides that with a sense of justice the distribution method is not harmonious.

According to M. Yahya Harahap in his book the position of authority and procedures for the religious court, explained "According to the decision of M.A. June 24, 1981 No. 02/Sip/1979, assets acquired during marriage are joint assets or shared assets between husband and wife. If the husband dies without having children or offspring, the wife as a widow has the right to get 1/2 (half) a share, while the other 1/2 part belongs to the heirs, the rest in partnership in accordance with the terms and position of the division determined by the faraid. [2]

According to the author, by analyzing the opinion of M. Yahya Harahap, in this way the distribution of company assets or joint assets becomes clear and complete. In other words, there are no more disputes related to joint property or company assets with the heirs of the late husband.

In cases of divorce and death, there are children, in other words, divorced by leaving offspring, both the wife (widow) and children, can demand the distribution of joint assets or company assets cannot be separated from faraid law, in other words, if things like the above happen in Sumatran Malay society east, they stick to the faraid legal system.

In the Malay Community of East Sumatra, which uses customary law and Islamic law, in the settlement of joint assets and inheritance, both the wife and husband who died are regulated according to customary law and Islamic law.

We take this as an example, if the wife dies, the distribution of sharia assets or joint assets and personal assets becomes inheritance. Then the inheritance is divided by the heirs who take legal provisions originating from the Al-Qur'an and Hadith. There is only a record according to the custom of the East Sumatra Malay community of the dead wife's assets, for example gold and kitchen utensils fall into the hands of daughters, and that share is calculated according to faraid law. With the intention that when the division of the inheritance arrives, the gold and kitchen utensils are also counted as belonging to the daughter in accordance with the provisions of the faraid law.

However, there is a custom of the East Sumatran Malay community, gold and kitchen utensils have an agreement where these items do not participate in the distribution of inheritance. In other words, given for free.

Here it is proven that the influence of Islamic law on the East Sumatran Malay community is not actually a barrier as stated by Busyar Muhammad in his book Principles of customary law. [3]

Distribution of Joint Assets According to Law Number 1 of 1974 concerning Marriage

In terms of joint property, Law Number 1 of 1974 concerning Marriage regulates joint property in marriage. This is stated in Article 35 Paragraph (1) which states that property acquired during marriage becomes joint property. Then the joint property is property acquired during the marriage, that is, from the start of the marriage to the breakup of the marriage.

Because the marriage law and its explanation do not further regulate where the joint assets come from, it can be interpreted as including those originating from the income of the husband and wife, including income from personal assets even though the main assets are not included in joint assets, as long as all of them are obtained throughout the marriage. [4]

Arrangements for the distribution of joint assets in the event of a divorce between husband and wife are regulated in Article 37 of Law Number 1 of 1997 concerning Marriage which reads: "If the marriage is broken up due to divorce, joint assets are regulated according to their respective laws".

According to the elucidation of Article 37, what is meant by their respective laws are religious law, customary law, and other laws. From this explanation, it can be seen that the Marriage Law does not provide guarantees or protection on how to share assets with husband and wife in the event of a divorce or eventual divorce, so there is no protection for women in sharing joint assets.

According to Prof. Hazairin, regarding the explanation of Article 35 of the Marriage Law which states that if the marriage is broken up, then the joint property is regulated according to their respective laws. What he considers to be a broader scope reads article 37 of the Marriage Law, which limits itself as follows: "If a marriage is broken up due to divorce, joint assets are regulated according to their respective laws". The confusion of mind arising from the conflicting general conditions ("breaking up") and special conditions ("breaking up due to divorce") increases because there is no law number 1 of 1974 regarding joint property which states "if the marriage is broken up it is not because of divorce" . Therefore Prof. Hazairin was more interested in the elucidation of Article 35 of the Marriage Law than the provisions in Article 37 of the Marriage Law, so it would be better if the elucidation of Article 35 was repealed and completely moved to

become Article 37, so that from Article 37 the word "because of divorce" needs to be abolished. [5]

Even though Law Number 1 of 1974 concerning Marriage has been promulgated, in reality many local communities and courts still refer to local customary law. We see this in court decisions, there is no uniformity as stated in Law Number 1 of 1974 and Customary Law.

By looking at this fact, where the courts still refer to local customary law, even though there are regulations (see Law Number 1 of 1974 and customary law) the government should issue rules that apply to all adat in Indonesia.

The purpose of this rule is to regulate all customary laws that apply in Indonesia, especially in the division of corporate assets, this is also adjusted to the desired legal unification. Besides that, it is in accordance with the legal mission which focuses on justice. This is also a legal protection for women in the distribution of company assets where each region has different customary law rules in its distribution. So that later there will be no more differences between each region in the distribution of company assets or joint assets in Indonesia.

Conclusion

The emergence of injustice in the distribution of joint assets due to the distribution of joint assets can be divided into two, and can be divided by three. In the implementation of the distribution by dividing in two where the husband and wife who are divorced, both divorced and dead, the company's assets are still divided into two parts. One part for the husband and one part for the wife. The second way of dividing by dividing by three, here looks at the extent to which the wife participates in working to accompany her husband in collecting the company's assets or joint assets. Where 2/3 is for the husband and 1/3 is for the wife. According to article 37 of Law Number 1 of 1974 concerning Marriage, if a marriage is broken up due to divorce, joint assets are regulated according to their respective laws. What is meant by each law is explained in the elucidation of Article 37 itself where the respective laws are religious law, customary law, and other laws.

References

[1]   Ter Haar Bzn, *Asas-Asas Dan Susunan Hukum Adat*, Terjemahan K.Ng. Ssoebekti Roesponolo Cet. Ke V. Jakarta : Pradnya Paramita, 1980.

[2]   M. Y. Harahap, *Kedudukan Kewenangan Dan Acara Peradilan Agama*, Undang-Undang Nomor 7 Tahun 1989. Jakarta : PT. Garuda Metropolitan Pers, 1991.

[3]   M. Busyar, *Pokok-Pokok Hukum Adat*. Jakarta : PT. Pradnya Paramita, 1998.

[4]   J. Satrio, *Hukum Harta Perkawinan*. Cet. 1. Bandung : Citra Aditya Bakti, 1991.

[5]   Hazairin, *Hukum Kekeluargaan Indonesia*. Jakarta : Tintamas, 1961.

Asian University Collaborative Learning in Credit Transfer in Professional Teacher Education Program: A Solution of Asian Quality of Teacher Education

Hasanuddin Fatsah[1]

Introduction

Indonesia is a member of South East Asian Country that hasa vital role in South East Asian Economic Societies. Knowledge and intellectual capability become strategic resources for economic understanding. The readiness of Indonesia to take part in South East Asian Economic Societies is in accordance to the roles of higher education in Indonesia focused on the development ofstrong human resources to fulfill the goals of theSouth East Asian Countries. Higher Education in Indonesia has important roles in education, research, and community services. Currently,there are 4,523 higher education institutions in Indonesia consisting of 3.135 universities, 1103 academy, 262 polytechnics, and 12 Community Academy aiming for a capacitated human capital.

Teachers and lecturers article 8 stated that teachers must have the academic qualification, competency, certification of educator, healthy both in physical and psychology to achieve the objectives of national education Apparently, Indonesian law Number 12 of 2012 on Higher Education article 17 points [1], that 1) professional education is considered a higher education done after the baccalaureate program, provided for citizens to achieve specific skills. Teacher preparation refers to a self-development and professionalism training program for teachers conducted after accomplishing their undergraduate study. The program is based on the Regulation of Government of Indonesia Number 74 of 2008 considering the regulation of teachers' reformation in Indonesia [2].

Professional Teacher Education Study program is a professional education for preparing teachers that have competency in teaching at elementary to senior high school levels and all subject matters. This program is expected to solve problems related to some teachers at isolated districts, unbalanced distribution of teachers, underqualified teachers, the low competence of teachers, and mismatch qualification teachers in Indonesia [3].Professional Teacher Education Study Program is also crucial for South East Asian countries. South East Asian countries need professional teachers to

[1] Gorontalo State University, hasanuddin@ung.ac.id

improve the quality of education. Competence and qualification framework among South East countries should be discussed together in order to have a qualification framework in professional teacher development in South East Asian Countries.

The purpose of this paper is to explore professional teacher education program in Indonesia. Furthermore, this paper also investigates the implementation of collaborative learning, student's exchange, and credit transfer in professional teacher education program in cooperation with Asian universities. Collaborative learning can be conducted through blended learning (online learning) with partner university, direct learning with Host University in Indonesia, and teaching practice in some schools in Indonesia or Asian countries with university partners.

Avalos [4] has reviewed teacher professional development in teaching and teacher education over ten years and reviewed some effects of professional development on teachers' insight and performance including effects of pupils.The positive impacts of such a program on changes regarding teacher's cognitions, views, and performances have also been reviewed .Changes in teacher cognitions werestudied on different modalities of professional development improved curricular knowledge and understanding in reading comprehension and science [5],[6],[7].

Improvement of teacher's knowledge was found in a study of the effect of Action Research on three areasof teacher cognition: ideological, empirical, and technical methods and it was indicated that only technical knowledge was improved [8] and [9] Hoekstra, Brekelmans, Beijaard, & Korthagen have explored teachers' perceptions and practices regarding student self-regulated learning. Teacher's professional development was claimed some categories, such as, 1) The learning of practicing teachers; this encompasses the way the teachers learn, their preparation in learning, and the manifestation of their learning efforts based on the changes in perception, views, and performances. 2) The characteristics of the professional learning and development of teacher in their work environment and how the policies and education system of their workplace affects their work. 3) The ways the mediations contribute to the quality of their learning, which covers learning facilities provided by the schools or Partner University, or even by teachers as collaborators[4].

In the Indonesian context, the first way for teachers to have certification is to followcertification programs. The programs are directed to teachers who have been serving for more than five years and above. The Indonesian government decides to declare a

professional teacher certification so that the government develops a certification program. The certification program in Indonesia is conducted by implementing portfolio assessment, training for teachers, and professional education for teachers [10],[11],[12]. Portfolio assessment is given to professional and experienced teachers which assesses several elements for instances, academic qualification, education and training, teaching experience, planning and implementation of learning, assessment of the supervisor, academic achievement, the work of professional development, participation in scientific forums, organizational experience, and relevant award. Training for teachers is teacher certification through professional training for teachers who do not qualify based on a portfolio assessment. Professional education for teachers is targeted for fresh graduates or certified-teachers candidate.

Discussion
Professional Teacher Education Program in Indonesia

Professional teacher education program is delivered by higher education institution with human resources required. Human resources consist of lecturers and staff. The higher institution has to work together with mentor teachers at the school partnership. The personnel of professional teacher education program possessesa pedagogic competence and managerial competence. Lecturers of Professional teacher education program teach students, facilitate a number of workshops, research advisor, and supervisor of teaching practice. According to Directorate of Learning and Students Higher Education [3], that lecturers have to meet some minimum requirements, such as: 1) Master or Applied master graduate; 2) having academic qualification in Education program; 3) having academic position as an Associate Professor (*Lektor Kepala*); and 4) for vocational education can be from vocational higher education.

The higher education institutions, for instance, to cooperate with selected schools and mentor teachers. Mentor teachers work to advise the workshop, research, and teaching practice. Mentor teachers have to fulfill the minimum requirements, including: 1) bachelor degree; 2) having professional teacher certification; 3) havingat least a required level of teacher's teaching experience; 4) having the same educational background withtheir students; and 5) having minimal 76 score of Teacher Competence Assessment.

Based on teacher professional education framework, curriculum development is conducted according to a systematic, systemic, and realistic procedure. Curriculum development has to be based on rational arguments, comprehensive study, and objective.

The curriculum development of professional teacher program is carried out operationally through procedures as follows: 1) study of major subject and discipline of science; 2) study of community needs and stakeholders; 3) curriculum evaluation; 4) state of profile of outputs; 5) State of learning outcomes; 6) choosing and setting up number of credit hours/semester in each subject matter; 7) Formulate teacher professional education activities, number SKS, and description; 8) arrange curriculum structure in each level of program; and 9) composing semester lesson plan.

Learning outcomes in the Professional teacher education program has to be achieved. The standard competence of the output isin accordance with National Standard of Directorate of Learning and Student of Higher Education. Pedagogic competency indicates how teachers formulate competence indicator and learning outcomes, organize teaching materials, teaching process, learning media, and learning assessment and evaluation. Teachers also can develop lesson plan according to techno-pedagogical content knowledge. Teachers also realize a good learning condition and facilitate character building of students. Teachers also can develop an authentic-holistic assessment that covers aptitude, knowledge, and skill.

Personal competence indicates that teachers apply the rules of religion that they have. Teachers love their country and obey the law of their country. The teachers also characters, and responsibility. They also have a willingness to develop their personality.

Social competence is indicated by a good communication with students, teachers, academic staff, parents, and community in spoken and written form politely, effectively, and productively. Teachers also take part to develop their nation. They also commit to adapt and use information and technology in the implementation of their professional tasks.

Professional competence indicates that teachers can analyze learning outcomes as a base for choosing teaching materials. They can apply and evaluate teaching materials, structure, concepts, and framework of science that support science, technology, and art development. They also have mastery of concepts, approaches, techniques, or scientific methods, technology, and art. They find new concepts, approaches, techniques, or methods in relevant science, technology, and arts.

The Framework of Professional Teacher Education Program in South East Asian Country

The framework of professional teacher education in South East Asian Countries refers to the ASEAN Qualification Reference

Framework. The members of South East Asian Countries developed their National Qualification Reference Framework are according to Asian Qualifications Reference Framework. This framework concerns about several areas, e.g., education and training, and the aims of encouraginglifelong learning in a broader sense.

The ASIAN Qualifications Reference Framework [13] aims at comparing the qualifications of all ASEAN countries that are expected to:

A. Support recognition of qualification
B. Encourage the development of qualifications frameworks that can facilitate lifelong learning
C. Encourage the development of national approaches to validate learning gained outside formal education
D. Promote and encourage education and learner mobility
E. Promote worker mobility
F. Lead to understand qualification systems better
G. Promote higher quality qualifications systems

The ASIAN Qualifications Reference Framework is a product of the agreement among the member states, which requires participation from those countries. The design of this framework is to neutralize the national standards of ASEAN countries. This is to provide national qualification systems explicitly based on the ASEAN Qualifications Reference Framework. For instance, Indonesian Qualifications Framework (IQF) consists of Nine Levels.

Accordingto IQF, professional teacher education program is on the level 7. Therefore, the learning outcomes should be the ability to have pedagogic competence, personal competence, social competence, and professional competence. In pedagogic competence, graduates are able to plan, implement, assess, and evaluate learning according to their major subject matters. Personal competence indicates that graduates can have a good attitude and aptitude, religious, ethics, norm and cultural values for developing their personality. In social competence, graduates are able to communicate and take part in the education process, and professional competence where graduates are able to develop theory, methods, and teaching materials for developing their profession in teaching.

Based on the ASIAN Qualifications Reference Framework and Qualification of Standard Competency of Teachers and Educators in South East Asia, we can say that Asian member states have equal Qualification Reference Framework. According to SEMEO-INNOTECH (2010) in Faikhamta [14] states the following.

A. Professional knowledge – refers to content and teaching methodology mastery

B.   Professional skills – refers to pedagogies, classroom management, and learner assessment
C.   Personal characteristics – refers to personal traits such as being responsible, punctual, etc.
D.   Professional/Personal ethical standards and values – refers to sound and ethical standards of ethics and morality by which teachers act as the role models for the school and the community
E.   Professional development and lifelong learning

Collaborative Learning in Credit transfer on Professional Teacher Education Program

Collaborative learning on professional teacher education can be implemented at schools as partners andUniversity partners through credit transfer. Credit transfer on a professional teacher education program in Indonesia can be done in Indonesian university partners or Asian university partners. Credit transfer focuses on the theoretical development of pedagogy or field teaching practice. To do a credit transfer, we need to have Memorandum of Understanding between Asian Universities and Indonesian Universities that have professional teacher education program. We also need school partners for field teaching practice. Therefore, credit transfer is applicable at South East Asian Schools by conducting field-teaching practice or developing pedagogic competence at Asian University Partners.

Professional teacher Education in Indonesia is to certify teachers. We need to have the same standard of quality of education that conducted together university partners and school partners in Asian Countries. To achieve this, we can develop a collaborative system to apply students' exchange forcredit transfer. For instance, students who take professional teacher education program in Indonesian universities may have to study one semester at Asian Universities or school partners at Asian countries for their teaching practice. On the other hand, students of other Asian University majoring inteachereducation will have their teaching practice at Indonesian universities and school partners. Therefore, students have experience in teaching practice in different university partners and school partners in Asian countries.

The implementation of collaborative learning in professional teacher education in Indonesia can be implemented through a blended learning system, which enables the students to develop their pedagogic competence by enrolling online learning with university partner in South East Asian Countries. After finishing this course, the

students will have their teaching practice at the school partners in Indonesia. Mentors from school partners work together with supervisors from university to assess the students. Supervisors and mentors work together to assess students in the process of teaching practice in the field. These activities are to maintain quality assurance of professional teacher education program and to ensure that the certification of graduation is valid for the teachers in Asian countries. This is possible to conduct because we have the same standard qualification professional teacher education program in Asian Countries.

Conclusion

Teacher professional certification in Indonesian context plays a significant role in South East Asian countries. Implementing Asian University collaborative learning in credit transfer on professional teacher education program is among the approaches to develop the quality of teacher profession in Asian countries. Professional teacher education program in Indonesia can be used as a model for developing the quality of teachers as a profession.This can be implemented through collaborative learning for students' exchange and credit transfer that are supported by blended learning system (online learning) and teaching practice at different schools in South East Asian countries. We need to set up together qualification standard of teacher's competence according to the Asian Qualification Reference Framework. Therefore, Asian university partners and professional teacher education program have to cooperate to synchronize their perception about curriculum, learning outcome, and strategy for implementing collaborative learning.

References

[1]   Presiden RI. Undang Undang No.12 tahun 2012 Tentang Pendidikan Tinggi. 2012

[2]   Peraturan Menteri Pendidikan dan Kebudayaan RI. Nomor 74 tahun 2008 tentang reformasi guru di Indonesia.2008.

[3]   Direktorat Jenderal Pembelajaran dan Kemahasiswaan. Pedoman Penyelenggaraan Pendidikan Profesi Guru. Jakarta: Kementerian Riset Teknologi dan Pendidikan Tinggi. 2017.

[4]   B. Avalos, Teacher Professional Development in Teaching and Teacher Education, *Teaching and Teacher Education*, Volume 27, Issue 1 January 2011, Pp 10-20. 2011.

[5]   Chau Thuy, Cao Thi. Vietnamese National Competency Standard for Teachers and Educators. Asten International Conference. 2017.

[6]   G. Cherubini, F. Zambelli, & P. Boscolo, Student Motivation: An Experiencein Service Education As A Context of Professional Development of Teachers, *Teaching and Teacher Education. 18* (3).273-288.2002.

[7]   B. A. Ermeling, Tracing The Effects of Teacher Inquiry on Classroom Practice. *Teaching and Teacher Education, 26* (3) 377-388.2010.

[8]   N. Frery, & D. Fisher, Using Common Formative Assessments as A Source of Professional Development in an Urban American Elementary School. *Teaching and Teacher Education. 25*(5). 674-680. 2009.

[9]   T. H. Levine, A. S. Marcus, How The Structure and Focus of Teachers' Collaborative Activities Facilitate and Constrain Teacher Learning. *Teaching and Teacher Education. 26* (3). 289-298.2010.

[10]   A. Hoekstra, M. Brekelmans, D. Beijaard, & F. Korthegen, Experiences Teachers' Informal Learning: Learning Activities and change in behavior. *Teaching and Teacher Education. 25* (5) 663-673.2009.

[11]   Triyanto. Improving Teacher Professionalism through Certification Program: In Indonesian Case Study. Word Academy of Science, Engineering and Technology, *International Journal of Social, Behavioral, Economics, and Industrial Engineering* Vol 6, (7) 1868-1872.2012

[12]   Chau Thuy, Cao Thi. Vietnamese National Competency Standard for Teachers and Educators. Asten International Conference.2017.

[13]   P. A. J. Ponte, D. Beijaard, & T. Wubbels, Teachers' Development of Professional Knowledgethrough Action Research and Facilitation of This by Teacher Educators. *Teaching and Teacher Education. 20* (6) 571-588.2004.

[14]   C. Faikhamta, Teacher Competency Standard of Thailand. Asten International Conference. 2017.

[15]   The Association of Southeast Asian Nations The ASIAN Qualifications Reference Framework. AQRF Meeting, 20 March 2014.

Optimization of Gluten-Free Products Using Expert Design Methods in the Green Food Industry

Hasnelly[1]. Hervelly[2] , Yeyen Nurulhidayati[3]

Introduction

Green food products are an innovation in technology to provide a consumption trend that provides healthy benefits to the body by minimizing the use of ingredients that have a negative impact on health. Consumers not only choose to consume green food products because they are attractive, but also because of their benefits [1].

Existence of green food industry is very important, where the industry must handle products in accordance with the requirements to maintain the benefits of the products produced [2], defines that the green food industry is an industry that processes and provides green food products.

[3] conduct research about the importance of implementing resource-based strategies in the green food industry. Industry must try to provide different new recipes for consumers, implement special skills in producing products, and market their products to be easily accessible to consumers.

Product reports allow management to evaluate possible strategies for each product. This strategy can be used to increase a company's cash flow, increase market segmentation, or reduce production costs. The report can also provide information on which product management should be optimized to provide further investment. Product analysis per value focuses on the strategic direction for each product.

The design of green food products must meet the criteria intended by the target market. The success of the green food industry can be measured from two criteria, namely the economic success sector and the level of actualization in overcoming environmental problems. Green food companies must be able to influence consumer perceptions of the products offered in order to achieve the organization's target of success. A company must listen to the opinions or desires of consumers that can be a representation of customer value. In the end, this perception of customer value will influence how

[1] Departement of Food Technology, Pasundan University Bandung
[2] Departement of Food Technology, Pasundan University Bandung
[3] Departement of Food Technology, Pasundan University Bandung

a company makes and produces its products. Consumer decisions to buy a product depend on the perception of the value of the product which is a comparison between price and profit [2].

Green value added on products has a significant relationship with perceived quality and intention to repurchase from consumers. This shows that products that have green added value will improve the quality of products in the eyes of consumers, which leads to the intention to buy back those products that are stronger. Therefore, when consumers buy green products, they will start implementing green concepts [4]

Strategies that can increase product value must be supported by effectiveness and cost savings. Company management must have the principle of costs incurred.

to be in accordance with the right targets that will create consumer value which means that the costs incurred will make customer and industry satisfaction reduced the activities that do not add value to the product [5].

Green food products prices will be affected by the costs of green food production. Therefore, to look for optimal formulation of raw materials in the manufacture of green food products while still reducing production costs, research operational is used. [6] mentioned that the linear method in operational research has become an important thing. Linear programs have had a significant impact since 1950. Linear programming is the standard method used to save tens or even hundreds of millions of dollars for business enterprises in many sectors of society and has spread rapidly. Many linear programs are used to optimize products that aim to reduce production costs.

Optimization in the real world will face difficulties in the number of parameters that must be optimized at the same time and not all parameters can be known at the beginning of the optimization phase. Optimizing several objectives that are carried out together is an efficient solution that is inseparable from the objectives and is not exacerbated in other objectives [7]. In this scientific paper the Design Expert program will be discussed in finding optimal solutions from several parameters that are important in optimizing green food products.

Discussion
Expert Design Methods

Research conducted regarding the optimization of gluten-free organic vermicelli formulations based on red rice flour, mung bean flour and arrowroot starch using the Expert Design 11.0 program

obtained recommendations for the polynomial model suggested for ash content is linear. The model recommendations are selected based on the smallest p-value, where the linear p-value model for the ash content response is 0.0560. The value of p-value of ash content response can be seen in table 1.

Table 1. Polynomial Model of Ash Content Response

Source	Sequential p-value	Adjusted R^2	Predicted R^2	
Linear	**0.0560**	**0.3920**	**0.0652**	**Suggested**
Quadratic	0.5503	0.3394	-0.8384	
Special Cubic	0.9602	0.1748	-3.1322	
Cubic	0.1891	0.9266	-2.8022	
Sp Quartic vs Quadratic	0.6671	0.1418	-7.9606	
Quartic vs Cubic				Aliased
Quartic vs Sp Quartic				Aliased

The results of analysis of variance carried out by the Expert Design 11.0 program on gluten-free organic vermicelli on ash content response, showed that the results of non-significant variance analysis with a p value "prob> F" were greater than 0.05, namely 0.0560. The results of the analysis showed that the formulation of red rice flour, mung bean flour and arrowroot starch did not influence the response of ash content of gluten-free organic vermicelli. Table 2 is an ANOVA table of ash content responses.

Table 2. ANOVA For Linear Model on Ash Content

Source	Sum of Squares	df	Mean Square	F-value	p-value	
Model	0.4193	2	0.2096	4.22	0.0560	Not significant
[1] Linear Mixture	0.4193	2	0.2096	4.22	0.0560	
Residual	0.3971	8	0.0496			
Cor Total	0.8164	10				

The mathematical model equation obtained from the Expert Design methods for the ash content response is the estimated coefficient of each factor contained in the equation. The mathematical equations obtained are:

Ash Content = 1.57A + 0.9388B + 0.3926C

The mathematical equation shows that the increase in ash content is strongly influenced by the addition of brown rice flour because it has the largest constant value.

Different colors on the contour graph of the response of ash content show the lowest ash response value (blue), which is 0.2% to the highest (red), which is 1%. The three-dimensional graph shows the interaction relationship among components. The difference in surface height on the three-dimensional graph shows the response values of different ash levels for every combination of components in the formulation. Contour plot graphs and three dimensions graph of ash content response can be seen in Figure 1.
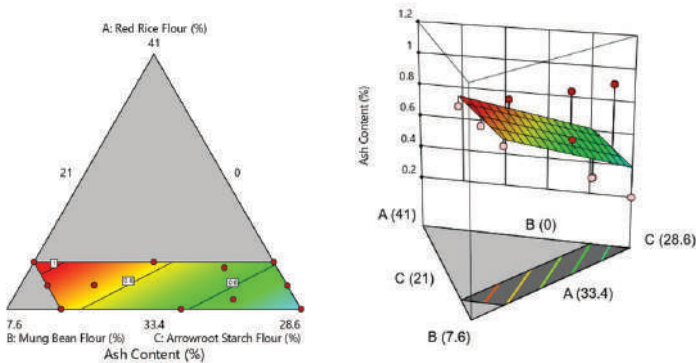
Figure 1. Contour Plot Graphs and Three Dimensions Graph of Ash Content Response

Secondary response used as a parameter in the optimization of gluten-free organic vermicelli formula is moisture content. The recommendation for the polynomial model for the moisture content response given by the Expert Design 11.0 application is special cubic, where the p-value value of this model is the smallest, which is 0.0883. The p-value of the moisture content response can be seen in table 3.

Table 3. Polynomial Model of Moisture Content Response

Source	Sequential p-value	Adjusted R²	Predicted R²	
Linear	0.8538	-0.2016	-0.7532	
Quadratic	0.3133	0.0010	-3.5009	
Special Cubic	**0.0883**	**0.4469**	**-5.0099**	**Suggested**
Cubic	0.5856	0.4926	-25.2985	
Sp Quartic vs Quadratic	0.4154	0.2487	-10.1922	
Quartic vs Cubic				Aliased

Source	Sequential p-value	Adjusted R²	Predicted R²	
Quartic vs Sp Quartic				Aliased

The results of the analysis of variants of gluten-free organic vermicelli moisture content response showed a non-significant result with a p value "prob> F" greater than 0.05, which was 0.2142. The equation obtained showed that the formulation of components of red rice flour, mung bean flour, and arrowroot starch had no effect on the moisture content response of gluten-free organic vermicelli products. ANOVA table of moisture content response can be seen in table 4.

Table 4. ANOVA For Linear Model of Moisture Content

Source	Sum of Squares	df	Mean Square	F-value	p-value	
Model	9.60	6	1.60	2.35	0.2142	**Not significant**
[1] Linear Mixture	0.4778	2	0.2389	0.3502	0.7242	
AB	2.03	1	2.03	2.98	0.1596	
AC	2.45	1	2.45	3.59	0.1311	
BC	4.21	1	4.21	6.18	0.0678	
ABC	3.43	1	3.43	5.03	0.0883	
Residual	2.73	4	0.6822			
Cor Total	12.33	10				

The mathematical model equation for gluten-free organic vermicelli on moisture content responses obtained from the Expert Design program is:

$$\text{Moisture Content} = 123.51A + 6.25B + 8.44C - 123.33AB - 132.08AC + 13.31BC - 97.56ABC$$

The mathematical equation model obtained showed that the addition of red rice flour, mung bean flour, and arrowroot starch did not affect the moisture of organic vermicelli. Addition of components separately and the interaction of two components of BC will increase the value of moisture content indicated by a constant that has a positive value, while the interaction of two components AB and AC and the interaction between components of ABC will reduce the value of moisture content. The increased of moisture content is strongly influenced by the addition of broken brown rice flour because it has the largest constant value.

Different colors in the contour plot graph shows the response rate of moisture content from the lowest (blue), which is 7.69% to the highest (red), which is 11.43%. The three-dimensional graph shows the relationship of interaction among components where the difference in surface height indicates the value of the moisture content that varies in every combination. Contour plot graphs and three dimensions graph of moisture content response can be seen in Figure 2.

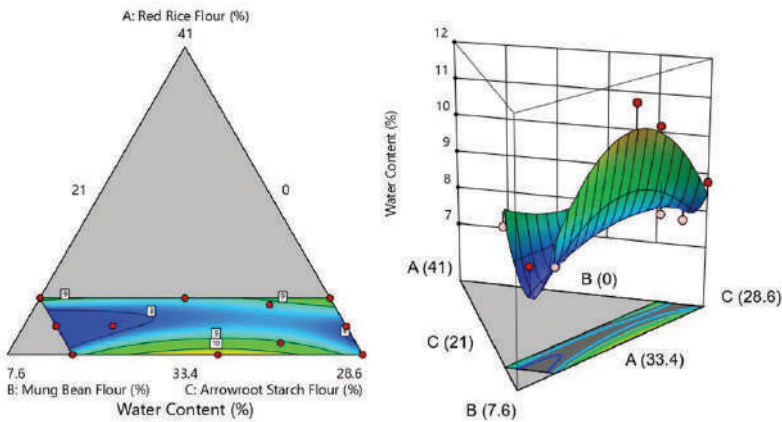**Figure 2. Contour Plot Graphs and Three Dimensions Graph of Moisture Content Response**

The next response as a parameter in the optimization of gluten-free organic vermicelli formula is protein content. The recommendation of the polynomial model of protein content response provided by the Design Expert 11.0 application is special cubic, where the p-value of this model is the smallest, namely 0.1404, as seen in table 5.

Table 5. Polynomial Model of Protein Content Response

Source	Sequential p-value	Adjusted R^2	Predicted R^2	
Linear	0.8207	-0.1898	-0.9012	
Quadratic	0.4360	-0.1538	-2.1565	
Special Cubic	0.2621	-0.0118	-2.7945	
Cubic	**0.1404**	**0.9506**	**-1.5616**	**Suggested**
Sp Quartic vs Quadratic	0.8087	-0.9268	-18.4425	
Quartic vs Cubic				Aliased
Quartic vs Sp Quartic				Aliased

The results of analysis of variance for protein content of gluten-free organic vermicelli showed a non-significant result with a p value of "prob> F" greater than 0.05, which is 0.5330. The equation obtained showed that the formulation of components of red rice flour, mung bean flour, and arrowroot starch did not influence the protein content of gluten-free organic vermicelli products. ANOVA table of protein content response can be seen in table 6.

Table 6. ANOVA For Linear Model of Protein Content

Source	Sum of Squares	df	Mean Square	F-value	p-value	
Model	4.54	6	0.7569	0.9805	0.5330	**Not significant**
[1] Linear Mixture	0.3677	2	0.1838	0.2381	0.7985	
AB	0.0008	1	0.0008	0.0010	0.9766	
AC	0.0314	1	0.0314	0.0407	0.8500	
BC	0.0168	1	0.0168	0.0217	0.8899	
ABC	1.31	1	1.31	1.70	0.2621	
Residual	3.09	4	0.7720			
Cor Total	7.63	10				

The mathematical model equation for the protein content of gluten-free organic vermicelli obtained from the Expert Design program is:

$$\text{Protein Content} = -0.4147A + 6.32B + 5.33C + 2.38AB + 14.96AC - 0.8397BC - 60.36ABC$$

The mathematical equation model obtained showed that the addition of red rice flour, mung bean flour, and arrowroot starch did not influence the protein content of organic vermicelli. Addition of

components B and C separately and two components AB and AC will increase the value of protein content indicated by a positive value constant, while the interaction of two components of BC and interactions between components of ABC will reduce the value of protein content. Increased protein content is strongly influenced by the addition of mung bean flour because it has the largest constant value.

Different colors on the contour plot chart shows the lowest protein (blue) response rate of 4.24% to the highest (red), which is 6.73%. The three-dimensional graph shows the relationship between interaction among components where the difference in surface height shows the response values of different protein content in every combination of formulas. Contour plot graphs and three dimensions graph of protein content response can be seen in Figure 3.

Figure 3. Contour Plot Graphs and Three Dimensions Graph of Protein Content Response

Another response that is used as a parameter in the optimization of gluten-free organic vermicelli formula is cooking loss analysis. The recommendation of the polynomial model for the response of cooking loss given by the Design Expert 11.0 program is linear. The model recommendation is chosen because the linear model has the smallest p-value value which is <0,0001. The water-level p-value response can be seen in table 7.

Table 7. Polynomial Model of Cooking Loss Response

Source	Sequential p-value	Adjusted R²	Predicted R²	
Linear	**< 0.0001**	**0.9800**	**0.9709**	**Suggested**
Quadratic	0.7026	0.9753	0.9495	
Special Cubic	0.5405	0.9722	0.9200	
Cubic	0.2785	0.9946	0.7195	
Sp Quartic vs Quadratic	0.1880	0.9920	0.8785	
Quartic vs Cubic				Aliased
Quartic vs Sp Quartic				Aliased

The results of analysis of variance for cooking loss of gluten-free organic vermicelli showed significant results with a p value "prob> F" smaller than 0.05, which was <0.0001. The equation obtained showed that the formulation of components of red rice flour, mung bean flour, and arrowroot starch affected the cooking loss response of gluten-free organic vermicelli products. ANOVA table from the response of cooking loss can be seen in table 8.

Table 8. ANOVA For Linear Model of Cooking Loss

Source	Sum of Squares	df	Mean Square	F-value	p-value	
Model	71.88	2	35.94	245.49	< 0.0001	**Significant**
[1] Linear Mixture	71.88	2	35.94	245.49	< 0.0001	
Residual	1.17	8	0.1464			
Cor Total	73.06	10				

The mathematical model equation for the cooking loss response of gluten-free organic vermicelli obtained from the Expert Design program is:

Cooking loss = 14.58A + 18.13B + 10.25C

The mathematical equation model obtained showed that the addition of red rice flour, mung bean flour, and arrowroot starch had an influence on the cooking loss response of organic rice vermicelli. The increase in cooking loss value is strongly influenced by the addition of mung bean flour because it has the largest constant value.
Different colors in the contour plot graph shows the cooking loss response value from the lowest (blue) which is 10.55% to the

highest (red) which is 17.43%. The three-dimensional graph shows the relationship between interaction among components where the difference in surface height shows different cooking loss values for every combination of formulas. Contour plot graphs and three dimensions graph of moisture content response can be seen in Figure 4.
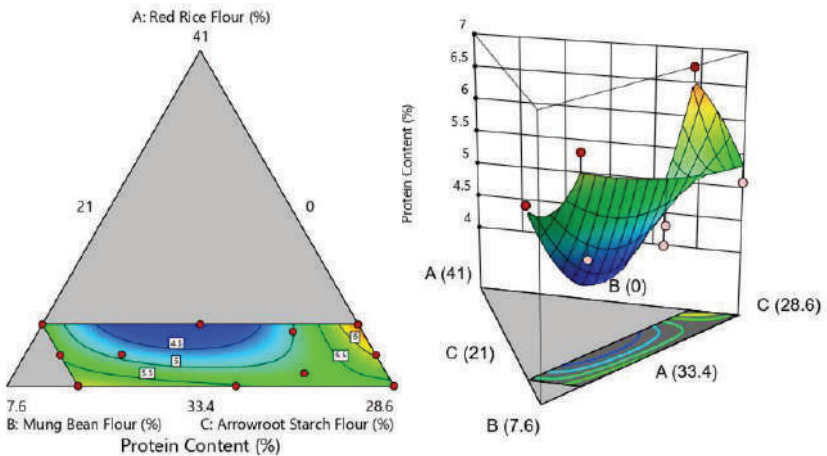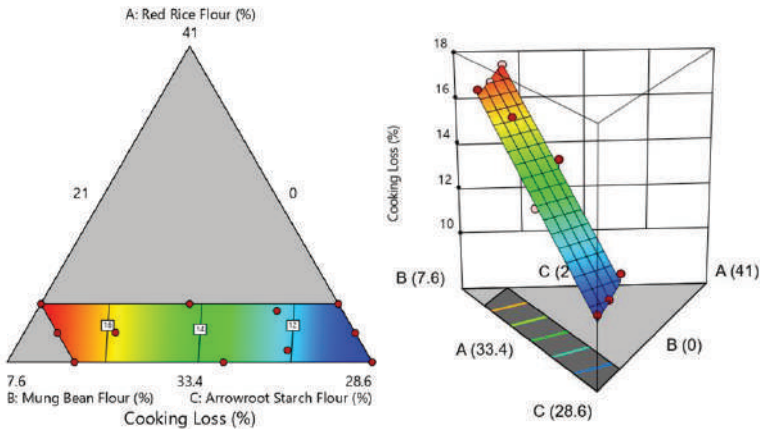

Figure 4. Contour Plot Graphs and Three Dimensions Graph of Cooking Loss

Selected Optimal Formula

The selected formulation is the optimal solution or formulation predicted by the Expert Design 11.0 program. The optimal D-mixture design method is based on a predetermined response analysis. The value of the response variable obtained from every formula of green food products is included in the Design Expert 11.0 program to be processed. The program will provide several product formula solutions according to the desired optimization target. The target optimization value that can be achieved is called the value of desirability. This value ranges from zero to one. The desirability value that approaches one indicates that the formula for green food products can reach the optimal formula according to the desired response variable.

The optimization process of each response variable will be given an importance of interest to achieve the desired goal. The importance of a response will determine the formula produced by the program. Determining the importance of interest in this response will be determining the quality of green food products that have been made, which can be adjusted to market demand or product standards.

The response component optimized according to the importance in the research on optimization of gluten-free organic vermicelli formula can be seen in table 9

Table 9. Importance of Interests for Selected Formula on Gluten Free Rice Vermicelli Optimization

Name	Goal	Lower Limit	Upper Limit	Lower Weight	Upper Weight	Importance
A:Red Rice Flour	Is in range	33.4	34.8	1	1	3
B:Mung Bean Flour	Is in range	0	6.2	1	1	3
C:Garut Starch Flour	Is in range	21	28.6	1	1	3
Water Content	Minimize	7.69	11.43	1	1	3
Protein Content	Is in range	4.24	6.729	1	1	3
Ash Content	Minimize	0.2	1	1	1	3
Cooking Loss	Minimize	10.55	17.43	1	1	3

The desirability value generated is influenced by the complexity of the component, the range used in the component, the number of components, the response, and the target to be achieved in obtaining the optimal formula of green food products. The complexity of the number of components can be seen in the requirements for the number of raw materials that are considered important and affect the product to determine the formulation. The amount of raw material determined in different hoses will also affect the value of desirability, where the wider the range of feeding values the determination of the optimum formula with high desirability will be more difficult. In the study of optimization of gluten-free organic vermicelli, the solution of optimum formula was designed with the Expert Design 11.0 program as shown in table 10.

Table 10. Solution For Gluten Free Organic Vermicelli

Red Bean Flour	Mung Bean Flour	Garut Starch Flour	Water Content	Protein content	Ash Content	Cooking Loss	Desirbility	
33.680	0.000	28.320	7.996	5.652	0.437	10.413	0.865	Selected

The contour plot and three-dimensional diagram based on the desirability value of the selected gluten-free organic vermicelli formula can be seen in Figure 5.
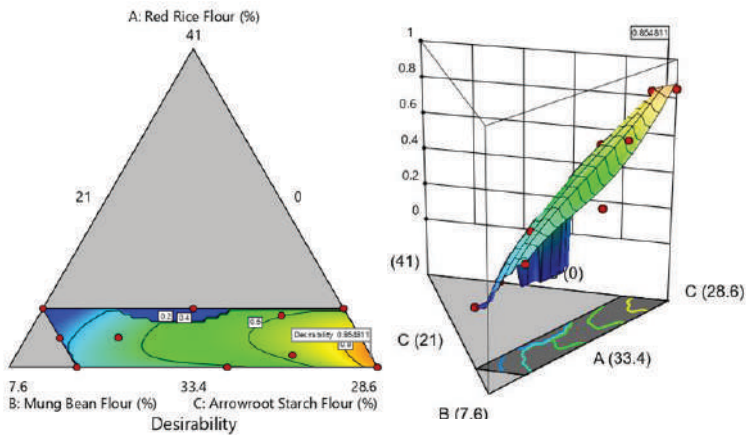
Figure 5. Contour Plot Graph and Three-Dimensional Graph of Desirability of the Selected Gluten-Free Vermicelli Formula

Verification

The Expert Design 11.0 program will predict the response value of the selected optimum formula that has given. This program will also gives confident interval and prediction interval for every response predictive value at the level of 5%. The prediction of the response value provided by the Expert Design 11.0 program is then verifiably verified for responses that have been determined and organoleptic tests performed to determine the level of consumer acceptance and preference. The verification results show that the results of laboratory verification compared with the prediction given by the 11.0 expert design program are not much different. The results of the verification of every response to the optimization of gluten-free organic vermicelli formula research can be seen in table 11.

Table 11. Results of Verification Formula of Gluten Free Organic Verification

Response	Results (%)		95% CI	
	Prediction	Verification	Low	High
Water Content	7.996	8.94	6.3713	9.61945
Ash Content	0.437	0.50	0.163251	0.709806

Response	Results (%)		95% CI	
	Prediction	Verification	Low	High
Protein Content	5.652	4.96	3.92441	7.37934
Cooking Loss	10.413	10.6	9.94366	10.8824

Based on the results of previous studies regarding optimization of composite flour-based breakfast meal flakes formula based on optimization, optimization was carried out using the Expert Design program with the response of carbohydrate and protein content. The recommended polynomial model given by the Expert Design 11.0 program for the response of carbohydrate content of gluten-free flakes is linear. The model recommendation is chosen because the linear model has the smallest p-value. The results of variance analysis for carbohydrate content of gluten-free flakes showed significant results, so the formulation of taro flour, mung bean flour and black mulberry leaves had an effect on the carbohydrate content of gluten-free flakes.

The mathematical equation model obtained from the Expert Design program shows that adding taro flour, green bean flour, and black mulberry leaves influences the response of carbohydrate content of gluten-free flakes. Increased carbohydrate content are strongly influenced by the addition of taro flour because it has the largest constant value.

The recommended polynomial model given by the Expert Design 11.0 application for response to protein content of gluten-free flakes is linear. The model recommendation is chosen because the linear model has the smallest p-value. The results of variance analysis for gluten-free protein flakes showed significant results. The equation obtained shows that the formulation of components of taro flour, mung bean flour, and black mulberry leaves influence the protein content of gluten-free flakes. The mathematical equation model obtained from the program shows that the addition of taro flour, mung bean flour, and black mulberry leaves influences the protein content of gluten-free flakes. Increased protein content is strongly influenced by the addition of mung bean flour because it has the largest constant value.

Conclusion

Expert Design Methods can be used in product optimization in the green food industry with multi parameters. This program can be used to reduce time in formulating green food products so that they can be adjusted to the demands and needs of consumers. This program

can design formulas in accordance with the wishes and needs that can be based on the quality standards of existing products. In addition, this program can minimize trial and error, so that it can linearly reduce production costs. Design-Expert is a statistical method *software* that can be used to help carry out experimental designs such as determining the optimum formula for a food product. In addition to optimization, this software can also provide insight into the factors that influence the experiment. The Expert Design method is useful in optimizing formulations in producing food products by the green food processing industry with multi-parameters. This program is used to make it easier for formulators to determine the optimal formula for producing large quantities of food, shortening the time in formulating green food products so that they can be adapted to the demands and needs of consumers. *Software* can be used to evaluate the effect of the formulation variables of each ingredient with different methods. *Design-Expert* has advantages and disadvantages and advantages of *Design-Expert* is that it can reduce formulation development time and has a high success rate as evidenced by the degree of desirability and the percentage of prediction error. While the shortcomings of Design-Expert are dependence on software as an optimization tool that produces a prediction error value of less than 4%. This program can design formulas in accordance with the wishes and needs that can be based on the quality standards of existing products. In addition, this program can minimize trial and error, so that it can linearly reduce production costs.

References

[1]   S. S. B. Junior, D. da Silva, M. L. D. S. Gabriel, & Braga, The Effects of Environmental Concern on Purchase of Green Products in Retail. *Procedia - Social and Behavioral Sciences*, *170*, 99–108. 2015. https://doi.org/10.1016/j.sbspro.2015.01.019.

[2]   H. Sari, & Hasnelly. Factors Determining Green Companies Performance in Indonesia: A Conceptual Model. *Procedia - Social and Behavioral Sciences*, *57*, 518–523, 2012. https://doi.org/10.1016/j.sbspro.2012.09.1219, 2012.

[3]   Hasnelly, & H. Sari,Resource Based View: Strategies of the Manager of Green Food Product Industry in Indonesia. *Procedia - Social and Behavioral Sciences*, *57*, 346–351, 2012.

[4]   Ariffin, S., Yusof, J. M., Putit, L., & Shah, M. I. A. (2016). Factors Influencing Perceived Quality and Repurchase Intention Towards Green Products. *Procedia Economics and Finance*, *37*, 391–396. https://doi.org/10.1016/S2212-5671(16)30142-3.

[5] Hasnelly, & E. Yusuf, Analysis of Market-Based Approach on the Customer Value and Customer Satisfaction and Its Implication on Customer Loyalty of Organic Products in Indonesia. *Procedia - Social and Behavioral Sciences*, *40*, 86–93. 2012. https://doi.org/10.1016/J.SBSPRO.2012.03.165.

[6] S. F. Hillier,& J. G. Lieberman, Introduction to Operational Research. (3rd ed.). California : Holden-Day, (Chapter 2). 1980

[7] M. Schmidt, A. Schöbel, & L. Thom, Min-ordering and max-ordering scalarization methods for multi-objective robust optimization. *European Journal of Operational Research*, *275*(2), 2019. 446–459. https://doi.org/10.1016/j.ejor.2018.11.048.

Child Witness in Indonesia Criminal Courts: Efforts To Protect the Law in A Humanistic Way

Ika Dewi Sartika Saimima[1]

Introduction

The phenomenon of sexual violence that occurs in Indonesian children is like an endless iceberg. The issue of sexual violence is an important and complicated issue of all the problems of violence against children. Witness and victim protection agency, in its 2021 report, stated that 234 children applied for protection because they had become victims of violence. The report stated that 149 children reported being witnesses of sexual violence victims with a range of junior high and high school education.[1] Meanwhile, the Indonesian Child Protection Commission submitted data showing 5,953 cases of child rights violations in 2021, 859 of which were data on issues of child victims of sexual violence 2021. In its report, the Indonesian Child Protection Commission stated that Teachers and Principals perpetrated 88% of Child Sexual Violence in Schools.[2] This statement reinforces that in cases of sexual violence against children, an imbalance of power relations is exacerbated because the perpetrator has more control over the victim. Perpetrators who have close relationships with victims of sexual abuse, such as parents and children, uncles and nephews, teachers and students, and community leaders, make children suffer physically, psychologically, and mentally.

Cases Sexual abuse of children is one of the most challenging crimes to detect and prosecute, in large part because there are often only two witnesses to violence against children, which is an act of abuse or mistreatment of a child in the form of physical, emotional, sexual harm, neglect of parenting and exploitation for commercial purposes that can endanger the health, survival, dignity or development, acts of violence obtained from people who are responsible, trusted or in power in the protection of the Child. Children who conflict with the Law because of the condition of being victims of sexual violence must receive protection as witnesses in the criminal justice process. In the Juvenile Criminal Justice System Law number 11 of 2012, it is stated that every Child who is a witness or

[1] Master of Law Study Program, Bhayangkara University Jakarta Raya, ika.saimima@ubharajaya.ac.id

victim of a crime must be given a guarantee of safety, protection of identity, the right to get assistance, and the right to be accompanied by a defender.

The Child's statement has the value of evidentiary power for judges, which can be used as evidence for instructions.[3] In Article 1 Number 26 of the Criminal Procedure Code, it is determined that a witness is a person who can provide information for an investigation, prosecution, and trial regarding a criminal case that he has seen and experienced himself by stating the reasons for that knowledge. Subekti also noted that a witness is a person whose testimony is heard before a court hearing and has the task of assisting a court in a case. Witnesses as evidence are regulated in the Criminal Procedure Code, which is needed in proving criminal cases.[4]

The presence of witnesses is a requirement for the validity of a witness statement as evidence. However, there are times when the perpetrator and the victim only witness a criminal act, or a crime alleged to have occurred. Another problem is when a child becomes a witness or even experiences a crime himself. Several cases of sexual violence against children became public news when Herry Wirawan, the defendant, raped 13 female students and was sentenced to death and chemical castration. Another sexual violence case involved a motivator, Julianto Ekaputra (JE), where the four children who reported it were then bullied by their environment. They considered slander, considered a lie. This resulted in victims of sexual violence often not wanting to say it. Threats to children and their families were also made by the defendant in the sexual harassment case, Julianto Eka Putra (JE), Founder of the Indonesian Good Morning School. JE is known to try to intimidate and 'bribe' the victim's family. Nine witnesses and victims were intimidated by the perpetrators. In addition to threats and intimidation experienced by victim-witnesses, law enforcers often experience difficulties conducting examinations. Law enforcers must take a humane legal approach when conducting investigations against child witnesses to obtain information that can be used as evidence in court.

This article used normative legal research with a statute and a phenomenological approach. The phenomenological method is carried out to emphasize the exploration of the meaning and relation of child witnesses who are victims of sexual violence in certain situations. The use of qualitative methods in this article is also carried out through an approach to cases of sexual violence against children.

Discussion

Children are a vulnerable group that requires special attention in efforts to develop public health because their future is still long. In the end, children are expected to become the nation's leaders and continue the country's development. To improve the health status of children in Indonesia, it is necessary to develop comprehensive and directed child health development efforts on all health problems due to disease and other issues. Sexual violence experienced by a child can result in disruption of the process of child development. If this situation is not appropriately handled early, it will impact the decline in the quality of Indonesia's human resources.

The Criminal Code does not explicitly mention sexual violence against children. The Criminal Code calls it an act of sexual harassment. Article 289 of the Criminal Code states, "Whoever by violence or threats of violence or threats of violence forces someone to commit or allow obscene acts to be carried out, is punished for his fault in committing an act of violating decency with a maximum imprisonment of nine years." A person who has committed a crime will be subject to sanctions if he has fulfilled the elements of a criminal act. The features of a criminal act that must be fulfilled include an act that fulfills the formulation of the Law and is against the Law carried out by a person or group of people who are considered capable of being responsible. In the end, perpetrators of sexual abuse of children must be held accountable for their actions following applicable laws. In the case of HW and JE, they can be prosecuted under the criminal sanctions provisions in Article 289 of the Criminal Code. This is because both HW and JE, with their power relations, have forced their will on their students with threats and intimidation, resulting in sexual harassment and rape.

Perpetrators of sexual abuse of children or commonly called pedophiles, can be subject to sanctions based on the provisions of the Criminal Code. Sanctions for pedophiles according to the Criminal Code consist of: Sexual intercourse In terms of sexual intercourse, it is sexual intercourse carried out by adults against women outside of marriage, where the victim is a minor.

Article 287, paragraph 1 states that: "Whoever has intercourse with a woman outside of marriage, even though it is known or should be suspected, that she is not yet fifteen years old, or if her age is not proven, is not yet capable of marriage, is threatened with a maximum imprisonment of nine years.

Article 288, paragraph 1 of the Criminal Code states that: "Whoever has intercourse with a woman in marriage, who is known or ought to be suspected that before being able to marry, is threatened

if the act results in injury, with a maximum imprisonment of four years." imposing the will of an adult on a minor that is carried out without or with violence. Sexual intercourse without violence can occur by means or efforts of adults by persuading the victim by luring the victim with something or a gift that makes the victim happy and interested. Thus the perpetrator feels younger to carry out his intention to have sex with the victim.

Article 290, paragraph 2 of the Criminal Code states: "that is punishable by a maximum imprisonment of seven years: whoever commits an obscene act with someone even though it is known or proper, it must be suspected that he is not yet fifteen years old or is not married."

Article 290, paragraph 3 of the Criminal Code states: "that whoever persuades someone who is known or duly suspected that he is not yet fifteen years old or is not yet married, to commit or allow obscene acts to be carried out, or to have intercourse outside of marriage with another person."

Article 292 of the Criminal Code states: "that a person who is old enough, who commits an obscene act with another person of the same sex, who is known or duly suspected, that is not old enough, is threatened with a maximum imprisonment of five years."

Article 293, paragraph 1 of the Criminal Code states: "that whoever by giving or promising money or goods abuses a carrier arising from a misleading relationship deliberately moves a person who is not old enough and has good behavior, to commit or allow an obscene act to be carried out with him, even though he is not old enough. It is punishable by a maximum imprisonment of five years.

Article 294, paragraph 1 of the Criminal Code states: "that whoever commits an obscene act with his Child, stepson, adopted Child, Child under his supervision who is not yet old enough, or with a person who is not old enough to take care of him, his education or care is left to him or his bachelor or subordinates. Those not of sufficient age shall be punished by a maximum imprisonment of seven years." The definition of this obscene act is an act that is carried out by committing indecent acts related to the victim's body in terms of attacking the honor of the victim in the context of immoral acts and those committed by adults to minors.

Article 295 of the Criminal Code states:
1e. "With a maximum imprisonment of five years, whoever intentionally causes or facilitates obscene acts committed by his child, stepson or adopted child who is not yet an adult, by a child under his supervision, a minor who is handed over to him, so that he nurtured,

educated or guarded or his underage bachelor or people under him with other people."

2e. "With a maximum imprisonment of four years, any person who intentionally, apart from the things mentioned in 1e, causes or facilitates an obscene act with another person which is carried out by a minor, which he knows or reasonably suspects, that he has not mature."

In addition to the Criminal Code, legal protection for children who experience sexual violence can be used by the Sexual Violence Criminal Act. It is expressly stated that for cases of sexual violence, criminal acts cannot be resolved outside the judicial process or restorative justice except for child perpetrators as regulated in the Juvenile Criminal Justice System Law. The presence of the Law on the Crime of Sexual Violence is expected to help victims of sexual violence. There are nine types of sexual violence crimes: non-physical sexual harassment; physical and sexual harassment; forced contraception, forced sterilization; forced marriage; sexual abuse; sexual exploitation; sexual slavery; and electronic-based sexual violence. The nine types of sexual violence crimes will help fulfill the rights of victims to handle, protect, and recover victims, considering that perpetrators often avoid responsibility if they only use the Criminal Code. Therefore, a comprehensive arrangement of procedural Law from the stage of the investigation, prosecution, and examination in court with due observance of and upholding human rights, honor, and without intimidation is expected to help victims of sexual violence.

Obscene acts are acts committed by adults against minors to commit acts contrary to the victim's honor. Children who are victims of sexual abuse will have a psychological impact that will give birth to prolonged trauma which can then give birth to unhealthy attitudes, such as inferiority, excessive fear, disturbed mental development, and ultimately mental retardation. This situation may be a bad memory for the child victims of sexual abuse.

The United Nations Convention on the Rights of the Child, which the Indonesian government has ratified through Presidential Decree no. 36 of 1990, states that the Basic Needs of Children include 4 (four) basic principles, namely: 1) Non-discrimination; 2) The best interests of children 3) The right to survival and development 4) Respect for the opinion of children. To ensure the fulfillment of children's rights so they can live, develop and participate optimally with human dignity, and receive protection from violence and discrimination to realize quality, noble and prosperous Indonesian children.

Children victims of sexual violence crimes who ultimately have to be witnesses in court will experience prolonged trauma during the examination process until the trial. One of the potentially influential factors that can influence the perception of the credibility of a child witness' attitude is when they first confront the defendant in the courtroom. The difficulty of extracting information from witnesses of victims of sexual violence is undoubtedly a problem. Remember that when examining a child as a witness and a child as a victim, the trial is closed to the public. Judges, Public Prosecutors, and Legal Counsels do not wear a toga or official attributes.

Article 18 of the Juvenile Criminal Justice System Law states that in handling cases of children, child victims, child witnesses, Community Counselors, Professionals Social Workers, and Social Welfare Workers, Investigators, Public Prosecutors, Judges, Advocates or legal aid providers others must pay attention to the best interests of the Child and strive to maintain a family atmosphere. Law enforcers are expected to take a humane approach to child witnesses. The humanistic approach is defined as paying attention, and prior learning is an effort to build communication and individual relationships with individuals and groups.[5] A humanist approach will create a family atmosphere that makes children comfortable and child-friendly and does not cause fear and pressure.

A humanistic approach can also be taken by taking into account the provisions of Article 19, namely; 1) The identity of the Child, Child Victim, and Child Witness must be kept confidential in reporting in print or electronic media; 2) The identity, as referred to in paragraph (1), includes the name of the Child, the name of the Child Victim, the name of the Child Witness, the name of the parent, address, face, and other matters that may reveal the identity of the Child, Child Victim, and Child Witness.

To provide legal protection for child witnesses, Article 23 states that (1) At each level of examination, the Child must be given legal assistance and accompanied by a Community Counselor or other assistant following the provisions of the legislation. (2) At each level of examination, the Child Victim or Child Witness must be accompanied by a parent and person trusted by the Child Victim and Child Witness or Social Worker. (3) In the case of parents as suspects or defendants in a case being examined, the provisions referred to in paragraph (2) do not apply to parents.

The involvement of parents in every investigation process will certainly provide a sense of security and comfort to child witnesses. It is stated in Article 27 (1) In investigating a Child case, the Investigator must ask for consideration or advice from the Community

Counselor after the criminal act is reported or reported. (2) If necessary, the Investigator may seek consideration or advice from educational experts, psychologists, psychiatrists, religious leaders, Professional Social Workers or Social Welfare Workers, and other experts. (3) In the case of examining the Child Victim and the Child Witness, the Investigator is obliged to request a social report from the Professional Social Worker or Social Welfare Personnel after the criminal act is reported or reported.

Meanwhile, in the examination process to obtain the Child's information, it is stated in Article 58 (1) When examining the Child of the Victim and the Child of a Witness, the Judge may order that the Child be brought out of the courtroom. (2) During the examination of Child Victims and Child Witnesses, as referred to in paragraph (1), parents/guardians, advocates or other legal aid providers, and Community Counselors are still present. (3) If the Child of the Victim and the Child of the Witness cannot attend to give testimony before the court session, the Judge may order the Child of the Victim and the Child of the Witness to have their statements heard.

In searching for evidence related to sexual violence faced by children, documentation will be needed that can be used during meetings between witnesses/victims in the courtroom. In a criminal trial, law enforcers should be able to use video recordings of the testimonies of children who are victims of sexual violence to avoid prolonged trauma and to avoid possible emotional stress. At the very least, law enforcers seek to separate child witnesses to meet with the accused.

Suppose a child victim witness may not respond to a moment of confrontation in a manner that is in line with the Judge's expectations. In that case, it is necessary to approach the child victim witness that they are prepared to appear in the courtroom and will meet with the prosecutor, social worker, the accused, and police officers. Child witnesses need to be informed that this is a public court procedure and that it tells them that even if the accused is present, it cannot harm them. This information is provided to reduce children's anxiety about testifying and is believed to be associated with a more relaxed and confident attitude when they are in the courtroom.

Remember that in Article 171 of the Criminal Procedure Code, the testimony of child witnesses is not valuable as legal evidence. However, the information provided can be used as a guide that can strengthen the Judge's belief about the existence of a crime of sexual violence. In the provisions of Article 185 paragraph (7) of the Criminal Procedure Code, it is stated that statements from witnesses who are not sworn in, even though they are by one another, are not evidence.

Still, if the information is from the statements of witnesses sworn in, they can be used as additional legal evidence. Provisions concerning that there must first be valid evidence, such as evidence, witness testimony, expert evidence, letter evidence, or defendant's testimony. Therefore, the extraordinary evidence has met the minimum limit of proof. Namely, there have been at least 2 (two) proper pieces of evidence and an oath statement by the witness testimony.

Conclusion

The position of the Child as a witness to a crime in juvenile criminal justice guarantees that a child witness to a crime needs to be freed from threats, namely all forms of actions that have consequences, either directly or indirectly, that cause child witnesses to feel afraid regarding giving their testimony in a criminal judicial process. The success of a juvenile criminal justice process is highly dependent on the evidence that has been uncovered or found. Witness testimony is a very decisive element in the criminal justice process. Therefore, it is necessary to create a conducive climate through more humane handling by providing legal protection and security to child witnesses of a crime who knows or finds something that can help uncover criminal acts that have occurred and report this to law enforcement.

According to the criminal justice system, legal protection for children witnessing crimes emphasizes that children are entitled to all protections and rights regulated in the provisions of laws and regulations, such as medical rehabilitation and social rehabilitation, both within and outside the institution. Guarantee of safety, both physical, mental, and social, and the ease of obtaining information regarding the development of the case. Child witnesses of criminal acts in need can get protection from institutions that handle witness and victim protection or social protection houses by the provisions of the applicable laws and regulations.

References

[1]   LPSK, "Dedikasi Kerja Keras Melindungi untuk Korban Korban Kekerasan Kekerasan Seksual Perempuan Anak dan Perempuan Anak," 2021.

[2]   detikhealth.com, "KPAI: 88% Kekerasan Seksual Anak di Sekolah Pelakunya Guru dan Kepala Sekolah.," 2022. [Online]. Available: https://health.detik.com/berita-detikhealth/d-5902721/kpai-88-kekerasan-seksual-anak-di-sekolah-pelakunya-guru-dan-kepala-sekolah

[3]   A. Siagian and E. Sumarsih, "Kekuatan Saksi Anak sebagai Alat Bukti dalam Tindak Pidana Persetubuhan terhadap Anak," *Mizan J. Islam. Law*, vol. 4, no. 2, pp. 203–214, 2020, doi: 10.32507/mizan.v4i2.815.
[4]   Subekti, *Kamus Hukum*. Jakarta: Pradya Paramita, 1976.
[5]   B. A. Sumantri and N. Ahmad, "Teori Belajar Humanistik dan Implikasinya terhadap Pembelajaran Pendidikan Agama Islam," *Fondatia*, vol. 3, no. 2, pp. 1–18, 2019, doi: 10.36088/fondatia.v3i2.216.

Managing Human Resources in a Digital Culture

Ika Nurul Qamari[1], Mohd Shamsuri Md Saad[2]

Introduction

Advances in digital technology have driven digitalization in organizations and digital culture, therefore that it has become an important element that shapes social life and business organizations. The embodiment of digital organizational culture is formed because organizational culture is a form of identity, values, norms, and organizational activities that exist in today's business life. Digitization is an important concern and has led to an increase in academic studies on digitalization and digital culture. Digital culture in business life and digital leadership is the focus of academics in the latest research [1]. Technology has changed human resource activities, where previously using manual methods with office stationery methods complete with hard-print documents, now shifting to an era where everything is done through short virtualization without wasting time and effort [2]. Currently, various activities have been facilitated with the help of the latest electronic equipment to support all existing needs. Therefore, a variety of new strategies were created. The existence of new competencies that employees must master, notably through adjusting to the evolution of existing technologies, is increasing competition in the business environment [3], [4].

Digital culture has allowed human knowledge, values, and beliefs to be created in new environments and protected things in digital formats [5]. The existence of technology and digitalization has blurred the line between cultural production and consumption. Online culture has made tight connections turned into meaningful relationships between computers and humans [6]. Digital culture not only saves past creativity but also aims to predict and enhance creativity for the future. Digital culture is a producer (reproducing existing) and creator (making new things). Because digital culture is a dynamic that is constantly changing, institutional ecology must be able to respond to these changes. To guarantee that it remains a

[1] Department of Management, University of Muhammadiyah Yogyakarta (UMY), ika_nr@umy.ac.id

[2] Institute of Technology Management and Entrepreneurship, University Teknikal Malaysia Melaka (UTeM), shamsuri@utem.edu.my

resource for the knowledge society, multiple types of collaboration must be maintained within the mainstream system, but only within the corridors of organizational boundaries, rather than in alternative cells. Digital culture has shaped our perception of the world around us and supplied us with a complicated set of digital tools to manage global-local cultural exchanges.

The digital culture has increased technological skills. Organizations and businesses must prepare their people resources to adapt to the new culture. Organizations must enhance the processing power of data supplied to consumers and businesses, as well as the ubiquitous internet connection, among other digital changes [7]. This has altered corporate and employee work styles. Organizations are going toward corporate digitization as a result of improved flexibility and adaptability in a more sophisticated marketplace where employees are becoming more mobile and active. This is critical for increasing innovation and reducing additional costs. Businesses have collaborated more globally and diversely, and employees have become more global as well. Employees can work from anywhere and at any time as long as the organization community has safe internet access.

Building a culture is not an easy thing. All companies involved in research, of course, see the existence of one or more characteristics inherent in their company, one of which is a mindset. It is through this relevant mindset that culture can be built and preserved so that transformation can be realized. A digital mindset in the context of work is a person's beliefs and knowledge about the latest digital technology that is realized and used to generate profits in the world of work. Therefore, all organizations manage human resources with a digital culture. This article discusses the research question:
RQ1. How managing human resource management and practices in digital culture?
RQ2. What are the challenges and opportunities?

Discussion

Culture arises from three sources [8]: 1) the founders' views (vision and mission), values, and assumptions (artefacts); 2) the learning experience of group members as a maturing organization; and 3) new members' and leaders' beliefs, values, and assumptions. Although each performs a vital role, the founders' influence lies at the heart of the culture. Organizations do not form consciously or naturally; rather, they are goal-oriented, achieving success via coordinated and concerted action [9].

Digital Culture and Organizational Culture

Digital transformation and digital mindset must be proven by all levels of human resources involved in the organization or company to be successful, be it individuals, teams, or the company as a whole. The digital mindset must balance the following principles: 1) The willingness to take action or face obstacles; 2) the ability to connect end-to-end processes; 3) a Growth mindset, and 4) Everyone is an innovator. The ability to read, understand, acquaint, analyze, report, and generate insights is referred to as digital culture. Currently, digital culture is a precondition for digital transformation since digital culture application is more about altering the attitude (mindset) so that it can adapt to digital advancements [10], [11]. Digital culture is a concept that defines how technology and the internet profoundly impact how we interact, conduct, think, and communicate as people in organizational and community environments.

Organizational culture is "as important and complex as it is difficult to understand and use properly." Some scientific definitions encompass numerous dimensions as well as opposing paradigms. According to the functionalist paradigm, organizational culture serves the same function in all companies. It influences behavior, especially decisions on the adoption of digital technology, and gives organizational members with a feeling of identity [12]. In turn, new technology can influence organizational culture through changing behavior.

Culture is the most critical determinant of digital transformation success. Everyone has the ability to modify everything, such as switching to new technology, new infrastructure, new processes, and new product creation. Organizations, on the other hand, require the input of highly devoted human resources. It will be extremely difficult to bring about change without a strong commitment. Every organization's culture is its driving force. It is like oxygen which we can feel but we cannot see and without it we cannot survive.

Why should we care about culture? Technology adoption is influenced by culture. Technology adoption will result in new innovations. That is why culture plays a very important role in digital transformation. There will be many challenges and obstacles that organizations must face in implementing a digital culture. A strong employee engagement and commitment is a complete transformation, not only of the organization, more specifically on the people who act as stakeholders in the organization. In the organization can be categorized into three types of employees in terms of engagement [7]: 1) *Engaged*: employees who feel they have a close relationship with

the organization and are very self-motivated. They are active for new innovations and lead to organizational progress; 2) *Not Engaged*: employees who simply fulfill their obligations and complete their tasks, but are less enthusiastic about their work. 3) *Disengaged* – employees who come only fulfill obligations and they are not happy. The larger the size of the company, the more likely it is to find employees who are not involved or feel less engaged. Thus, as the company grows, it is likely to increase the number of employees who are not involved as the number of levels and functions becomes more complex and it is difficult to supervise each employee directly. The implication is that employee layoffs are a common side effect of company growth. When employees move away from the organization's shared goals, they will become less personally motivated to work harder. However, working hard cannot be considered the same as being engaged.

Managing Human Resource In Digital Age

A strong organizational culture is reflected in the activities of organizational members in achieving key performance indicators. This will have an impact on organizational performance. An example has been implemented in Indonesian and Malaysian universities, lecturers as educational staff, they must report their activities every semester on the system page containing the lecturer's workload. All lecturers are required to report on their education/teaching performance, research and publications, and community service. Universities that manage human resources well will provide socialization, assistance in filling and monitoring closely. The hope is that all lecturers report their workload digitally on the page that has been provided. The level of lecturers who pass the high lecturer workload assessment, it will reflect a stronger higher education organizational culture. Lecturers with better performance will feel happy and more engaged with the university.

In managing human resources, organizations need to encourage adaptation to new ways. It is important for individuals to improve their digital culture, of course this will simplify and speed up work, expand reach, create innovation and creativity, flexibility, expand networks, and expand business for business owners. This digital culture means trying to think of some of the most dramatic and important transformations that are the result of the increasing presence and importance of digital technology, one of the accompaniments of our digital culture today is a sense of rapid change, everything is of course always changing all the time. There are three important aspects in managing human resources in the era of digital

culture as follows [13]: 1) Participation, where individuals understand that the community participates in contributing to a common goal; 2) Remediation, how to change the existing culture into a new culture that is more useful without forgetting the culture. old; 3) Bricologe, the individual's ability to use things that already exist to form something new.

Challenges and Opportunities in Managing HR in the Digital Era

Human resource management in the digital age is analogous to two sides of a coin. There are opportunities to be realized, but there are also obstacles that must be acknowledged and addressed by the organization's or company's leadership. Most of today's communication is via email, text message, cloud-based communication and we lack face to face communication due to space and time limitations. Employees and human resource management both benefit from digital technology, which has an indirect impact on the firm. It focuses on the impact of HRM changes on workforce changes, HRM in general, and the use of technology in delivering HRM activities and space in particular .

Table 1. Benefits of HR Management in Digital Culture Source: [15]

Employees	Organization
1. Provides employees with a more comprehensive IT experience.	1. Accelerates decision-making and innovation
2. Ensures a consistent user experience across all devices	2. Provides more effective ways of working, increases productivity
3. Improves employee engagement	3. Accelerates the introduction of new products and services
4. Helps employees experience greater flexibility and choice	4. Provides efficient information distribution channels
5. Helps to improve employee and customer experience	5. Strengthens talent attraction and retention
6. Allows access to expert knowledge and discovery of project-critical	6. Prevents information overload
7. Improves communications	7. Shortens sales cycles

Employees	Organization
interfaces and collaboration	
8. Enable agility	8. Exploits customer-oriented styles and technologies
9. Prevents time, wasted in recreating information that already exists	9. Increases the chances of a proper successfully meeting its outcomes by using cross-functional teams
10. Reduces employee absenteeism	10. Facilitates technical improvement including better performance, platform support, improved security, etc.
11. Decreases staff turnover	11. Allows for environmental gains due to reduced travel (thereby improving the carbon footprint)
12. Enables secure access for users from anywhere at any time	
13. Support closer collaboration with customers, partners & co-workers.	

Table 1 presents the opportunities and benefits for HR management in a digital culture. There are various activities that enable employees and organizations to improve performance. Organizations are not easy to face and respond to this, but the courage of organizational leaders with the full support and commitment of employees is an encouragement to be able to make it happen.

Organizations will not survive if they do not adapt to a digital culture. New markets emerge, while businesses that profit from only one product, which are now obsolete, are losing market share. Then it's time to rethink their strategy and use digital transformation to reinvent and update their products and services. The digital revolution has replaced many mid-skill jobs, while high-skill jobs are on the rise, requiring more problem solving and overall skills [16]. Therefore, many researchers argue that the shift to organizational knowledge-based enhancement is on the rise. HR management practices from open-recruitment to post-retirement need to be handled more comprehensively. The existence of each employee

needs to be facilitated by an account that facilitates various service processes [17]. While digitization is more about systems of record keeping and more and more systems of engagement, digitization is about systems of engagement and systems of insight, by leveraging digital data and processes.

Conclusion

Every aspect of existence has been accelerated and radicalized by digital transformation. Managing HR is expected to be able to adapt to digital culture. Phase "Digital HR" has now started. Due to the time savings from digitization, HR professionals will have more time to devote to tasks that bring value. To become a Digital HR, one must digitalize HR procedures, transfer them to systems, or make them data-oriented. In order to respond to this revolutionary shift with the full support of their workforce, organizational leaders must have the courage to do so. In order to make it happen, employee engagement is crucial. The efforts made could be in naught if this is not communicated to the employees and then effectively carried out. As a result, the entire procedure should be viewed as a step toward digital culture. Organizations and businesses need to comprehend this viewpoint because something cannot be "sustainable" if it is not acknowledged as "culture."

References

[1]   M. C. Uysal, "Digital Culture and Employees." *Digital Transformation: A Human-Centric Approach*, pp. 153-172, 2022.

[2]   D. A. DeCenzo, S. P. Robbins, & S. L. Verhulst, "Fundamentals of human resource management." John Wiley & Sons, 2016.

[3]   Izvercian, Monica, Alina Radu, Larisa Ivascu, and Ben-Oni Ardelean. "The impact of human resources and total quality management on the enterprise." *Procedia-Social and Behavioral Sciences*, 124, pp. 27-33, 2014, https://doi.org/10.1016/j.sbspro.2014.02.456.

[4]   S. Sudha, and S. Ankita, "Competency framework for managing manpower post-pandemic." *In Research Anthology on Business Continuity and Navigating Times of Crisis*, pp. 313-330. IGI Global, 2022, https://doi.org/10.4018/978-1-6684-4503-7.ch016.

[5]   A. Bereznoy, D. Meissner, and V. Scuotto, "The intertwining of knowledge sharing and creation in the digital platform based ecosystem. A conceptual study on the lens of the open innovation approach", *Journal of Knowledge Management*, vol.

25, no. 8, pp. 2022-2042, 2021, https://doi.org/10.1108/JKM-10-2020-0769.

[6]   Lee, S. K., Kavya, P., and Lasser, S. C., "Social interactions and relationships with an intelligent virtual agent." *International Journal of Human-Computer Studies*, 150, 102608, 2021, https://doi.org/10.1016/j.ijhcs.2021.102608.

[7]   Y. Singh, and H. Atwal, "Digital culture–a hurdle or a catalyst in employee engagement." *International Journal of Management Studies*, *6*, no. 1/8, 54-60, 2019, http://dx.doi.org/10.18843/ijms/v6i1(8)/08

[8]   Schein, E. H. *Organizational culture and leadership,* vol. 2. John Wiley & Sons, 2010.

[9]   I. N. Qamari, J. Dewayani, J. Frianto , M. Nugroho, E. Mulyantomo, R. Setyowati, and P. Sudjatmoko, *Telaah buku perilaku organisasi dan pengembangan organisasi*. Lembaga Penelitian, Publikasi, dan Pengabdian pada Masyarakat Universitas Muhammadiyah Yogyakarta, pp1-29, Yogyakarta, 2014.

[10]   V. Miller, *Understanding digital culture*. Sage, 2020.

[11]   M. Arifuddin, I. N. Qamari, and A. Surwanti, "Digital Literacy, Digital Culture and Business Performance: A Comprehensive Conceptual Framework." *Journal of Marketing and Emerging Economics*, vol. 2, no. 10, pp. 59–67, 2022. https://openaccessjournals.eu/index.php/jmee/article/view/1668.

[12]   C. Isensee, F. Teuteberg, K. M. Griese, & C. Topi, "The relationship between organizational culture, sustainability, and digitalization in SMEs: A systematic review." *Journal of Cleaner Production*, 275, 122944, pp. 1-19, 2020.

[13]   M. Deuze, "Participation, remediation, bricolage: Considering principal components of a digital culture." *The information society*, vol. 22, no. 2, pp. 63-75, 2006. https://doi.org/10.1080/01972240600567170.

[14]   E. Parry, and S. Strohmeier, "HRM in the digital age – digital changes and challenges of the HR profession.", *Employee Relations*, vol. 36 no. 4., 2014, https://doi.org/10.1108/ER-03-2014-0032.

[15]   J. Madzimure, and G. T. M. Baloyi, "An Exploratory Study Into the Impact of Digital Workforce on Organisational Performance at the Road Accident Fund." *ScienceRise: Pedagogical Education*, 2 (47), pp. 4-12, 2022, https://doi.org/10.15587/2519-4984.2022.254458.

[16]   L. Afshari, and A. H. Nasab, "Enhancing organizational learning capability through managing talent: mediation effect of intellectual capital." *Human Resource Development International*, vol. 24, no. 1, pp. 48-64, 2021, https://doi.org/10.1080/13678868.2020.1727239.

[17]   R. N. L. Pierre, I. N. Qamari, and Nuryakin. "Impact of Electronic Human Resource Management toward Excellent Service–A Bibliometric Review." *Expert Journal of Business and Management*, vol. 10, no. 1, pp. 25-35, 2022, https://business.expertjournals.com/23446781-1003/.

City Branding as a Tourism Attraction Strategy

Indah Fatmawati[1]

Introduction

Tourism is one of the world's fastest-growing industries. It is vital to the economy and has stimulated the growth of other businesses, which led to a greater multiplier effect of effective economic development policies [1]. Developing tourism will result in a positive contribution, particularly in the financial sector, increased job opportunities, improved community welfare, increased taxation, and numerous other benefits. The Indonesian Ministry of Tourism [2] reported that tourism contributes to the country's Gross Domestic Product. In the last five years, during 2009-2018, tourists increased by more than 21%. Considering the great influence of the tourism industry on a country's development, strategic planning is essential to determine the most suitable tourism strategic action, specifically in attracting tourist visits.

Promoting the country and city becomes vital for its officials to attract visitors. Many nations are now concerned with promoting a special and unique identity in visitors' minds by developing place branding [3]. Place branding aids location-based business development by establishing and maintaining a favourable and consistent reputation [4]. Branding is an effective method for distinguishing between similar places and boosting competitiveness among them [5]. This opportunity prompted numerous attempts to develop managerial procedures to take advantage of and promote the premises' competitiveness. In tourism marketing, place branding focuses on the city [6]. Cities increasingly rely on their ability to attract visitors, investors, and talented and creative people while encouraging innovation for the benefit of all stakeholders [7]. City officials' awareness of city branding is an excellent start to building a good and exciting city image for visitors.

City branding is necessary for cities worldwide. The concept of city branding is highly connected with marketing strategies. As part of a comprehensive strategy, city branding is a marketing tool to develop a distinctive perception of a city [8]. As a result, for city identity and branding, the city's reputation can be regarded as one of the most

[1] University of Muhammadiyah Yogyakarta,
  indahfatmawati@umy.ac.id

important fundamental problems [9]. Considering destination branding in a city will undoubtedly positively impact cities' attractiveness and competitiveness. The modern city needs to be updated frequently. In this sense, cities create methods to help "sell" and market them on the international market [9]. City marketing depends on creating, promoting, and controlling the city's image, as visitors' interactions with the city arise from perceptions and impressions [10].

From the perspective of urban management and marketing, a city's image is essential since it identifies the strengths and weaknesses of the city, as well as the consequences of more problematic aspects to improve the city's overall appearance [11]. Urban planning and marketing have a relationship that needs each other to use city branding for competition to advance the city. City branding uses a city's advantages and ideals to convey a narrative about what the city stands for [12]. An influential and recognizable image would have a favourable impact on visitor pleasure [9]. Cities that use effective branding become more desirable, increasing their competitiveness in a variety of industries [13]. Cities with a distinct, convincing, and appealing vision for their future development have greater chances for growth [13]. Despite increased visitors and competitiveness, branding professionals must regard social inclusion as a barrier that must be overcome for the benefit of all local populations, including the most marginalized. [14].

Several cities worldwide have tried to implement the concept of city branding. New York United States developed NYC (New York City) to attract visitors for tourism and make a friendly name for their tourism. Amsterdam creates "I Amsterdam" to make visitors feel like part of the city. With the same motive, Hongkong uses Our Hongkong to make their visitors familiar with the city. In Indonesia, city branding has been implemented in many cities in various forms. Previously, Yogyakarta was famous for its slogan: "Jogja never ending Asia", currently rebranded as "Jogja Istimewa", representing the city philosophies' uniqueness. It not only attracts visitors but also introduces unique city identities.

City branding strategy also creates a city's identity. Particular cities try to develop city branding through iconic architecture, such as four famous iconic European buildings with strong images Louvre Pyramid in Paris, the Swiss Re Office building, Frank O` Gehry's 'Dancing House, and the Guggenheim Museum in Bilbao [9]. Iconic buildings serve as status symbols for cities and attract visitors [9]. Furthermore, city branding strategies are also claimed by prominent locales such as London, Stockholm, Copenhagen, Amsterdam, and Berlin [15].

Discussions

Communicating the city branding is conducted for several reasons and expected consequences. Articulating the city in the globalized world is the primary goal of creating city brands [9]. The governing structure in which city branding occurs and the impact of certain decisions made throughout the branding process significantly influence the implementation of city branding [15]. A city must be economically prosperous and have a positive reputation to be successful [9]. City branding fosters community development, boosts local identity and citizen identification, and mobilizes all social forces to combat social exclusion and discontent [10]. Greater development potential exists in cities with a distinct, convincing, and appealing vision for their future [13]. Therefore, city branding should demonstrate what the visitors feel and experience by visiting and living in the city.

The concept of city branding has been conceptualized in several ways. However, as with almost all topics discussed in the 'place branding' literature, no consensus has been reached on defining a 'city brand' [16]. Despite this, academics concur that the phenomena of city branding are exceptionally complicated. Thus they attempt to offer explanations of the term rather than precise definitions [16]. Dinnie [17] has argued that city branding is a set of brand traits that a city possesses to establish a foundation that promotes good perceptions from a wide range of people. In addition, Anholt [18] defined city branding as managing a city's image through strategic innovations and economic, commercial, socio-cultural, and regulatory restrictions. Maintenance of the built environment is just one aspect of city branding, which also includes creating a mental image and "feeling" of the city. [19]. From the marketing point of view, it is easier to understand the concept of city branding as the brand communicates the identities and living experiences that the visitors get from a particular city.

The growing awareness of the importance of city branding has increased scholars' interest. City branding is currently developing into an acknowledged study field with a fragmented theoretical basis, a high degree of multidisciplinary, and rapid growth within and beyond disciplines [8]. Lucarelli & Olof Berg [8] argued that in contemporary theoretical structure speaking. Emerging in the field of city branding research are three distinct viewpoints: 1) branding as production, which examines the processes of brand development, management, and governance; 2) branding as appropriation, which examines how the brand is received, used, and consumed; and 3) critical studies of city brands and city branding, which questions whether or not

branding is a net positive for cities. However, across academic fields, three viewpoints (creating, consuming, and criticizing city branding) arise based on study interests [8]. The city's competition to attract visitors and visitors' perception of city management are appealing marketing areas because maintaining a positive image influences visitors' perception of the city.

In an intense rivalry in business competition, it is crucial to consider new strategies to enhance the city's reputation to attract tourists [16]. The literature review suggests that more studies are needed in these areas and that the fields of destination branding studies in general and city branding studies are still in their infancy [16]. Instead of replicating and borrowing ideas, concepts, and approaches from other disciplines, future studies should consider city branding as a genuine multidisciplinary research subject. [8]. This expectation requires a critical attitude toward the study domain and diverse methods and investigations [8].

City Branding Consequences
City Brand Identity

The primary purpose of brands is to distinguish and set apart a product or service offering following a company's values [20]. Brand identity communicates the company's internal desired image and promises to people, utilizing a distinctive set of brand associations [21]. A city's brand identity refers to how well a person can distinguish it from other cities in their memory [9]. The essence of brand identity is to present it in such a way that it is more easily recognized and creates a competitive advantage that consumers will remember. Brands that engage and develop synergy with customers by creating brand identities which people identify with and eventually internalize create more substantial brand images and higher brand values [22]. Consumers are aware of the city because they already know about it. City slogans and logos are part of the core concepts visible to consumers who communicate with cities [18]. Thus, creating an appealing city brand contributes to building a city brand identity which eases visitors to retrieve their memories of good image and experience about the city.

City Brand Image

City branding is a tool to build a city brand image like a product or service brand. Brand image is a perception that exists in the consumers' minds, including what others think of the brand, expectations, beliefs, and emotions [23]. Brand image is also defined as the market positioning of a given brand, i.e. how the consumer

perceives the product [24]. Brand image is a consumer's assessment of the brand in a market. Because the brand image is based on consumer perceptions, consistent communication techniques can lead to various perceptual outcomes, creating measurement challenges [22]. The brand image evaluation can be found from personal experience or hearing about it from others or the media. Managers may improve brand communication to establish a stronger brand image, which translates into better positioning and, eventually, a greater brand value, by engaging with customers to understand better how they identify with the brand and what they genuinely care about [22]. In the context of city branding, creating a solid and impressive city brand positioning build a good city brand image in the visitors' mind. Such a good city image perceived by visitors or potential visitors will lead them to consider the city as one of their tourism destination choices.

Visiting Decision

Discussing visiting decisions in the city branding strategy is similar to the concept of purchase decision in analysing consumer behavior [25]. The purchase decision is consumer response as the consequence of marketing stimuli exposures, recognizing the need and wants, and evaluating the alternative. Deciding product or service meets their needs and wants [26]. The stimulus and response models of purchasing behaviour are the starting point of a purchase decision [27]. Previous research showed that creating a solid city brand, significantly influences visiting decisions. Impressive city branding builds the visitors' city brand image, which persuades the visitors or potential visitors to decide and visit the branded city. City branding and brand identities become effective marketing stimuli to attract visitors [28].

Conclusions

Utilizing city branding will give a substantial benefit to city development. The role of government and related stakeholders are essential in improving the city's image and reputation [29]. City officials need to consider the importance of city identity, which influences the city's image to attract potential visitors to the city [28]. The distinctiveness of a tourist attraction city is crucial for differentiating one city from others [29]. The city branding strategy significantly boosts the intention to visit, which may influence the decision to visit [30]. Thus, city branding can be considered a strategic action to build strong tourism attractiveness within a city.

References

[1]   UNWTO, "UNWTO Tourism Highlights," *World Tourism Organization*, 2016.

[2]   Kemenparekraf, "Kajian Dampak Sektor Pariwisata Terhadap Perekonomian Indonesia.," *Kementrian Pariwisata dan Ekonomi Kreatif/ Badan Pariwisata dan Ekonomi Kreatif Republik Indonesia:*, 2019. .

[3]   P. Foroudi, S. Gupta, P. Ktchen, and M. M. Foroudi, "A Framework of Place Branding, Place Image and Place Reputation : Antecedents and Moderators," *Qual. Mark. Res. An Int. J.*, vol. 19, no. June 2016.

[4]   S. Gupta, M. M. Foroudi, J. Väätänen, S. Gupta, and L. Tiu, "Nations as brands : Cinema ' s Place in the Branding Role," *J. Bus. Res.*, no. March 2017, pp. 1–13, 2018.

[5]   S. Stepchenkova and X. Li, "Destination Image: Do Top-Of-Mind Associations Say It All?" *Ann. Tour. Res.*, vol. 45, pp. 46–62, 2014.

[6]   G. Pedeliento and M. Kavaratzis, "Bridging The Gap Between Culture, Identity And Image : A Structurationist Conceptualization of Place Brands and Place Branding," *J. Prod. Brand Manag.*, 2019.

[7]   L. Trinchini, N. A. Kolodii, N. A. Goncharova, and R. Baggio, "Creativity, Innovation and Smartness in Destination Branding," *Int. J. Tour. Cities*, vol. 5, no. 4, pp. 529–543, 2019.

[8]   A. Lucarelli and P. Olof Berg, "City Branding: A State-Of-The-Art Review of the Research Domain," *J. Place Manag. Dev.*, vol. 4, no. 1, pp. 9–27, 2011.

[9]   M. Riza, N. Doratli, and M. Fasli, "City Branding and Identity," *Procedia - Soc. Behav. Sci.*, vol. 35, no. December 2011, pp. 293–300, 2012.

[10]   M. Kavaratzis, "From City Marketing To City Branding: Towards A Theoretical Framework for Developing City Brands," *Place Brand.*, vol. 1, no. 1, pp. 58–73, 2004.

[11]   F. Cassia, V. Vigolo, M. M. Ugolini, and R. Baratta, "Exploring City Image: Residents' Versus Tourists' Perceptions," *TQM J.*, vol. 30, no. 5, pp. 476–489, 2018.

[12]   W. Belabas, J. Eshuis, and P. Scholten, "Re-Imagining The City: Branding Migration-Related Diversity," *Eur. Plan. Stud.*, vol. 28, no. 7, pp. 1315–1332, 2020.

[13]   S. Dudek-Mańkowska and M. Grochowski, "From Creative Industries To The Creative Place Brand: Some Reflections On City Branding in Poland," *Place Brand. Public Dipl.*, vol. 15, no. 4, pp. 274–287, 2019.

[14] A. Bonakdar and I. Audirac, "City Branding and the Link to Urban Planning: Theories, Practices, and Challenges," *J. Plan. Lit.*, vol. 35, no. 2, pp. 147–160, 2020.

[15] E. Braun, "Putting City Branding Into Practice," *J. Brand Manag.*, vol. 19, no. 4, pp. 257–267, 2012.

[16] I. Kasapi and A. Cela, "Destination Branding: A Review of the City Branding Literature," *Mediterr. J. Soc. Sci.*, vol. 8, no. 4, pp. 129–142, 2017.

[17] K. Dinnie, *City Branding*, 1st ed. London: Palgrave Macmillan UK, 2011.

[18] S. Anholt, *Competitive Identity The New Brand Management for Nations, Cities and Regions.* UK: Palgrave Macmillan, 2011.

[19] G. Warren and K. Dinnie, "Exploring The Dimensions of Place Branding: An Application of The ICON Model to the Branding of Toronto," *Int. J. Tour. Cities*, vol. 3, no. 1, pp. 56–68, 2017.

[20] J. N. Kapferer, *Strategic Brand Management.* London: Kogan Page, 1992.

[21] B. M. Ghodeswar, "Building Brand Identity in Competitive Markets: A Conceptual Model," *J. Prod. Brand Manag.*, vol. 17, no. 1, pp. 4–12, 2008.

[22] D. Alvarado-Karste and F. Guzmán, "The Effect Of Brand Identity-Cognitive Style Fit and Social Influence on Consumer-Based Brand Equity," *J. Prod. Brand Manag.*, vol. 29, no. 7, pp. 971–984, 2020.

[23] M.- Kavaratzis and G.- J.Ashworth, "City Branding: An Effective Assertion of Identity or A Transitory Marketing Trick," *J. Place Brand.*, vol. 2, no. 3, pp. 183–194, 2005.

[24] S. Nandan, "An Exploration of The Brand Identity–Brand Image Linkage: A Communications Perspective," *J. Brand Manag.*, vol. 12, no. 4, pp. 264–278, 2005.

[25] P. R. Suwarduki, E. Yulianto, and M. K. Mawardi, "Pangaruh Electronic Word of Mouth Terdapat Citra Destinasi Serta Dampaknya Pada Minat dan Keputusan Berkunjung," *J. Adm. Bisnis*, vol. 37, no. 1, 2016.

[26] L. G. Schiffman and J. Wisenblit, *Consumer Behavior*, 11th ed. Harlow, Essex: Pearson Education Limited, 2015.

[27] P. T. Kotler and G. Armstrong, *Principles of Marketing.* Pearson Global Edition, 2020.

[28] U. Purwanto and E. Soliha, "Pengaruh Branding Kota, Identitas Merek, dan Citra Merek Pada Keputusan Mungunjungi Kota Pekalongan," *J. Bisnis dan Manaj.*, vol. 18, no. 02, pp. 34–45, 2017.

[29]   A. S. Hussein, "City Branding And Urban Tourist, Revisit Intention: The Mediation Role Of City Image And Visitor Satisfaction," *Int. J. Tour. Policy*, vol. 10, no. 3, pp. 262–279, 2020.

[30]   A. Kusumawati, K. S. Rahayu, and E. W. Putra, "Antecedents Customer Decision To Visit Yogyakarta as Special Regions In Indonesia," *Cogent Bus. Manag.*, vol. 9, no. 1, 2022.

Case Studies in Islamic Religious Education Learning (Pendidikan Agama Islam/PAI) in Era 5.0: Gender, Disability and Social Inclusion (GEDSI)

Islamiyatur Rokhmah[1]

Introduction

Entering Era 5.0, Islamic Religious Education (PAI) teaching methods must be more responsive to the times, the unavoidable digital social era must be ready to be faced by PAI teachers. On the other hand, even though the era and era was developing, social problems still lingered in people's lives. So PAI cannot rely on the teacher center teaching pattern alone, but the student center base learning must be developed in the PAI learning model. [1]

Talking about Islam, Gender, Disability and Social Inclusion cannot be separated from several theories which say that science is interrelated between religious science and general science. Islam as a religious discipline cannot be separated from discussions and discussions about case problems in the field related to social inequality, in this case such as gender inequality and discrimination against women with disabilities. That discussing issues of gender, disability and social inclusion is the area of sociological and anthropological analysis. So in this case it can be said that Islam, sociology, anthropology are interrelated. Like the theory issued by Ian G Barbour and Holmes Rolston.

Ian G. Barbour in M Amin Abdullah's writings[2] [3] describes the relationship between religious knowledge and general science, according to him there are four types of relationship between the two, namely conflict, independence, dialogue, and integration. Theoretically, Barbour [4] [5] and Holmes Rolston III [6] elaborated on three key words regarding the relationship between religion and science with a dialogical and integrative pattern, namely semipermeable, inter subjective testability, and creative imagination. The theory of Ian G Barbour and Holmes Rolston is reinforced by the theory issued by M. Amin Abdullah [3] about the integration and interconnection of science in universities. M. Amin Abdullah is of the view that understanding Islam is not enough with *'ulum al-din*, but must be balanced with *al-fikr al-Islami* and *dirasat Islamiyah*.

---

[1] UNISA Yogyakarta

According to M. Amin Abdullah, it is important to link three components, namely the relationship and intellectual network between the scientific tradition of '*ulum al-din* (religious knowledge), a*l-fikr al-Islami* (Islamic thought), and *dirasat Islammiyah* (Islamic studies). Understanding of '*ulum al-din* as a representation of Islamic "local traditions" based on religious "language" and "texts" or *nas-nas, al-fikr al-Islami* as a representation of the struggle of humanity Islamic thought based on the ratio-intellect. *Dirasat Islamiyah* or Islamic studies as a new scientific cluster based on a comparative-critical social scientific paradigm involves all human experiences in the historical-empirical realm which is very, very diverse.

The concept of Islam and modern science needs to be reconciled, according to M. Amin Abdullah[7] *Kalam*, philosophy, *fiqh*, and modern social *da'wah* do not reject the involvement of science (physics, chemistry, biology, and others). Likewise, do not reject the involvement of social sciences such as sociology, anthropology, psychology and others, then the involvement of contemporary humanity (universal humanitarian issues such as human rights, gender justice, children's rights, violence in the name of religion, climate change, and other issues).

Discussion

Islamic education learning so far is still understood and delivered as theoretical learning, which when delivered to students will seem boring and boring. Where students are required to memorize good theories or concepts about worship, *fiqh, tarekh*, and others. The need for a new breakthrough in delivering Islamic Religious Education (PAI) courses. The case study approach in learning is a necessity that should be done. Students will be invited to actively discuss about actual cases in society such as violence against women, domestic violence, early marriage, discrimination against persons with disabilities, still high cases of stunting, marginalization based on ethnicity and race, and many other cases. These cases were analyzed using the analysis of the GEDSI approach [Gender, Disability and Social Inclusion], of course, will be associated with an Islamic perspective. Dina describes four important things from GEDSI, including: First, the fulfillment of basic rights for all individuals and citizens. No exception with different attributes based on gender, disability, age, religion, ethnic/ethnic background, sexual orientation, skin color, and so on. With this first principle, being sensitive to GEDSI means making other people not afraid to live their lives.[8]

Judging from the concept of integration of Islam and the social sciences, it can be drawn as follows. The meeting of Islamic religion

and issues of gender, disability and social inclusion can be described as a venn diagram, namely the existence of a wedge between the two, the meeting resulted in intersections that met each other and a very actual socio-religious analysis to be discussed in PAI lectures.
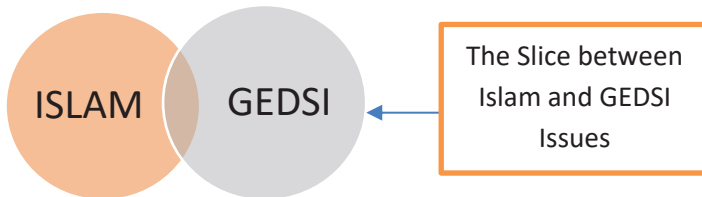

Figure 1 Islam and Gedsi Issues

These problems were discussed in group discussions by students, because the concept of student center learning (SCL) used the case study method. Case studies are learning that starts from identifying cases, alternative case solutions, conducting case investigations using learning resources, and compiling reports. Cases can be selected from lecture material whose phenomena are directly related to student needs to find alternative solutions to the case. [9] [10] The objectives of the case study method are:

A. Students are trained to investigate cases and find alternative solutions.
B. Students are trained to think high-order and critical.
C. Lectures will be oriented to student empowerment, that students are active in learning.

Applying the SCL method with case studies, PAI learning can be accepted by students easily and students will be responsive to the social problems that are happening and can apply Islamic scientific concepts that are mated with GEDSI to analyze social problems

Conclusion
A. The importance of the case study model in the SCL learning method for Islamic Religious Education in universities
B. The importance of meeting Islamic scholarship with the issue of GEDSI [Gender, Disability and Social Inclusion]

Reference
[1]   Harsono, "Sudent-Centered Learning di Perguruan Tinggi," *Sundermann J. Ilm. Teol. Pendidikan, Sains, Hum. Kebud.*, vol. 8,

no. 1–2, pp. 144–153, 2015.

[2]   S. Siswanto, "Perspektif Amin Abdullah tentang Integrasi-Interkoneksi dalam Kajian Islam," *Teosof. J. Tasawuf dan Pemikir. Islam*, vol. 3, no. 2, 2015, doi: 10.15642/teosofi.2013.3.2.376-409.

[3]   M. A. Abdullah, *Islamic Studies di Perguruan Tinggi: Pendekatan Integratif-Interkonesi*, 2nd ed. Yogyakarta: Pustaka Pelajar, 2012.

[4]   I. G. Barbour, *Issues in Science and Religion*. New York: Harper Torchbooks, 1966.

[5]   E. R. Muhammad, *Juru bicara Tuhan: Antara Sains dan Agama, terj. dari When Science Meets Religion: Enemies, Strategrs or Partners*. Bandung: Penerbit Mizan, 2002.

[6]   H. R. III, *Science and Religion: A Critical Survey*. New York: Random House Inc, 1987.

[7]   M.Amin Abdullah, *"Merajut Paradigma Filsafat Islam Keindonesiaan: fresh Ijtihad Memperjumpakan 'Ulum al-din dan Sains Modern dalam keilmuan Keagamaan Islam untuk Pembangunan Bangsa," dalam Filsafat Islam: Historisitas dan Aktualisasi: Peran dan Kontribusi Filsafat Islam b*. Yogyakarta: FA Press, 2014.

[8]   D. Afriyanti, "Empat Hal Penting dari Perspektif Gedsi Apa Saja." https://muhammadiyah.or.id/

[9]   M. Haryati, *Model dan Teknik Penilaian Pada Tingkatan Satuan Pendidikan*. Jakarta: Jakarta: Gaung Persada Press, 2008.

[10] R. I. Arends, *Learning To Teach "Belajar untuk Mengajar"*. Yogyakarta: Pustaka Pelajar, 2008.

Disposition Of Prospective Elementary School Teachers In Mathematics Problem Solving Strategies, Critical Thinking Review

Kartinah[1], Fine Reffiane[2]

Introduction

Critical thinking is a reasonable or reason-based reflective way of thinking that is focused on determining what to believe and do. Critical thinking is believed to depend on one's disposition to use it. Disposition is the dominant tendency of the spirit: mental, emotional, mood, habits of mind and attitude characteristic of a person displayed over a period of time.. Disposition is defined as a consistent willingness, motivation, tendency and intention to engage in critical thinking to reflect, make decisions and solve problems. Critical thinking disposition which is characterized as exploring curiosity, an acuity of mind, passionate dedication, and a desire to obtain reliable information, includes seven sub-dispositions namely Open-mindedness, Inquisitiveness, Systematicity, Truth-seeking, Analyticity, Self-Confidence , and Maturity.

Learning in schools is not only aimed at gathering knowledge, but also to shape attitudes and actions and instill concepts and skills [1]. This goal is better known as educational goals according to Bloom's taxonomy which includes three domains that must be achieved, namely the cognitive, affective and psychomotor domains. So far, teachers as educators in schools often ignore the affective aspects of learning. Mathematics, which most students consider scary, needs to change its perception from the affective side by the teacher. So that students will have a positive affective assessment of mathematics and ultimately improve their learning outcomes. This is in line with statement [2] which states that students' attitudes and beliefs about mathematics can affect their learning outcomes. Attention to the three aspects of cognitive, psychomotor, and affective in learning has been mandated in the applicable curriculum in Indonesia.

On the other hand, technology that has entered all aspects of human life, from digitalization to artificial intelligence has made humans enter a new civilization called the era of the industrial revolution 4.0. In anticipation of the impact of this era, the concept of society 5.0

[1] Program Studi PGSD, Universitas PGRI Semarang,
 kartinah@upgris.ac.id
[2] Program Studi PGSD, Universitas PGRI Semarang

emerged. This last era places humans as the main component and requires three abilities that students need to possess, namely: creativity, critical thinking, communication and collaboration.

Definition of Disposition

Disposition is the dominant tendency: spirit, mental, emotional, mood, habit of mind and attitude characteristic of a person displayed over a period of time [3]. Disposition is defined as a consistent willingness, motivation, tendency and intention to engage in critical thinking for reflection, in making decisions and solving problems [4]. Students' disposition towards mathematics is also known as mathematical disposition. Students' mathematical dispositions are manifested in the way they approach tasks - whether with confidence, willingness to explore alternatives, persistence, and their interest and tendency to reflect on their own thinking.

[2] states that mathematical disposition is a connection and appreciation of mathematics, namely a tendency to think and act in a positive way. Students' disposition towards mathematics is manifested through attitudes and actions in choosing an approach to completing tasks. Is it done with confidence, curiosity to find alternative solutions, diligent and challenged and the tendency of students to reflect on the way they think.
Reflection is a way of thinking about what has just been learned or thinking back about what has been done in the past. Reflection is a response to events, activities, or newly received knowledge [5]. Students' reflections will be seen when students discuss, direct statements about the subject matter they received today, notes, and their work. Meanwhile, according to [6] the disposition towards mathematics is a change in the tendency of students to view and behave towards mathematics, and to act when learning mathematics. For example, when students can solve non-routine problems, their attitudes and beliefs as students become more positive. The more mathematical concepts are understood, the more confident that mathematics can be mastered.

Critical Thingking

Critical thinking and creative thinking are manifestations of higher order thinking. This is because the ability to think is the highest cognitive competence that students need to master in class. Critical thinking can be seen as a student's thinking ability to compare two or more information, for example information received from outside with the information they have. If there are differences or similarities, then

he will ask questions or comments with the aim of getting an explanation.

Critical thinking is the art of analyzing and evaluating thinking [7]. [8] states that critical thinking is a reasonable or reason-based reflective way of thinking that is focused on determining what to believe and do. Critical thinking is an organized mental process and plays a role in the decision-making process to solve problems. Critical thinking includes analyzing and interpreting data in scientific activities. [8] identified several abilities possessed by critical thinkers. These abilities are classified into: (1) basic clarification, (2) inference, (3) advanced/advanced clarification, (4) conjecture and integration abilities, and (5) additional abilities.

In basic clarification, critical thinkers seek to better understand what others claim. It encompasses many capabilities, including identifying inferences, and the assumptions, premises, and logical structures and processes through which to arrive at conclusions. In inference activities, critical thinkers actively challenge claims and arguments by asking questions such as: Why? What do you mean by? What is an example? What are the facts? At this stage, it is important for the thinker to also assess the credibility of the sources used by the claimer. Critical thinkers look to expertise, reputation, objectives and other matters relating to the quality of the data provided to develop a claim or argument. Critical thinkers also evaluate the conclusions made by claimers using valid logical procedures and established criteria. Finally, critical thinkers develop alternative views, and using their knowledge of the feelings involved in the discussion, present their point of view in an appropriate way and an elegant rhetorical strategy.

Critical Thingking Disposition

The critical thinking disposition which is characterized as "curiosity, an acuity of mind, passionate dedication to reason, and a desire for reliable information" includes seven sub-dispositions: openmindedness, curiosity, systematicity, truthfulness, analyticity, self-confidence. , and Maturity (maturity) [9]. The following table 1 shows the components of the disposition.

Table 1. Description of Critical Thinking Disposition Elements According to Facione et al

Elemen	Deskription
Open-mindedness	tolerant of different views and sensitive to the possibility of self-bias.
Inquisitiveness	intellectual curiosity and desire to learn even when the application of knowledge is not apparent..

Systematicity	organizing, orderly, focused, and diligent in the investigation. The tendency to approach problems in an orderly and purposeful way is an integral part
Truth-seeking	eager to seek the best knowledge in a given context, dares to ask questions, is honest and objective about pursuing an investigation even if the findings do not support one's preconceived interests or opinions.
Analyticity	upholds the application of reasoning and the use of evidence to solve problems, anticipates potential conceptual or practical difficulties, and is always alert to the desire to intervene.
Self-Confidence	believe in one's own reliability and lead others in solving problems rationally and dare to ask questions.
Maturity	wise in decision making

Problems

[10] defines a problem when you have been given a description of something (problem) but don't yet have anything (shadow) that satisfies that description. According to [11] a problem is a situation faced by someone that requires a resolution and a certain path. What is a problem for one student may not be a problem for another. A problem usually contains a situation that encourages someone to solve it but does not know directly what to do to solve it [12]. If a problem is given to a child and the child immediately knows how to solve it correctly, then the problem is not a problem (non-problem questions are usually called routine questions or exercises). Mathematical problems are generally in the form of math problems, but not all math problems are problems. If we face a math problem, then there are several things that might happen, namely we: (a) immediately know or have an idea about the solution but have no desire (interest) to solve the problem; (b) have an idea of the solution and desire to solve it; (c) has no idea about the solution but wants to solve the problem; and (d) have no idea about the solution and do not want to solve the problem.

If we are in possibility (c) then it is said that the problem is a problem for us. So, in order for a question to be a problem for us, two conditions are needed, namely (1) we do not know the description of the answer to the question and (2) we are willing or willing to solve the problem [12]. Based on these two conditions, it can be concluded that a question is a problem or not for a person, which is relative to that person. This opinion is

supported by [13] Tatag (2007) that the concept of a problem depends on the individual and time. Therefore, to solve or solve a problem we need to do more and more complex mental activities (thinking) than the mental activities we do when we solve routine problems. For example, a problem that is a problem for student A is not necessarily a problem for students who are in the same class as student A. To have the ability to solve problems, one must have a lot of experience in solving various problems..

Discussion
Problem Solving Strategy
The idea of a problem-solving strategy was formulated by several experts, including:
Problem solving strategies according to [14]:
1) Working Backward**:** 2) Finding a Pattern**;** 3) Adopting a Different Point of View**;** 4) Solving a simpler analogeus problem**;** 5) Considering extreme cases**;** 6) Making a Drawing (visual representation)**;** 7) Intelligent Guessing and Testing (including approximation)**;** 8) Acounting for all possibilities.

Strategi-strategi pemecahan masalah menurut [2]:
1) Draw a Picture; 2) Choose an operation; 3) Make a table or graph; 4) Act it out; 5) Work Backwards; 6) Guess, Test and Revise; 7) Work a simple problem, 8) Make an organized list; 9) Find a Pattern.

Strategi-strategi pemecahan masalah menurut [15]:

1) Drawing a Picture; 2) Looking for a Pattern; 3) Systematic guessing and checking; 4) Acting it Out; 5) Making a Table; 6) Working a Simple Problem; 7) Working Backwards.
Broadly speaking, there are four strategies in problem solving strategies, namely:

A. Working Backward
The problem-solving strategy using the technique of working backwards is one of the mathematical problem-solving strategies in which the method of solving backwards-to-front means from the things that are known at the end of the problem to the beginning of the problem. The questions given involve a series of operations where the final result of the operation is known and what is asked is the initial condition of the problem.

Working Backward is a problem solving strategy by starting from the goal (goal) then working best to the information provided (given). The process of working in reverse here is to find the information needed to achieve the goal through information that results in previous information from the problem given, if it has not been obtained, then do the same thing and so on until all the information needed is obtained. By knowing the information needed to achieve the goal, the problem will be seen more clearly so that it is easy to solve. The following is an example of implementing the Working Backward strategy.

If the sum of two numbers is 12 and the product of the two numbers is 4.

Find the sum of the reciprocals of the two numbers!

Many students will immediately make the equations x + y = 12 and xy = 4.

They are used to solving these equations by the substitution method. If students do not make mistakes, it will be easy to get grades

$x = 6 \pm 4\sqrt{2}$ and $y = = 6 \pm 4\sqrt{2}$

$\dfrac{4}{y} + y = 12$

$y^2 + 4 = 12y$

$y^2 - 12y + 4 = 0$

$y_{12} = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

$= \dfrac{12 \pm \sqrt{144 - 16}}{2}$

$= 6 \pm \dfrac{1}{2}\sqrt{128}$

$= 6 \pm \dfrac{1}{2}\sqrt{64 \cdot 2}$

$= 6 \pm 4\sqrt{2}$

They have to find the sum of the reciprocals of the two numbers. Can this problem be solved by substitution? Of course you can, but it will be more complex. The solution process will be easy to start from the end of the problem, which is what we call looking for i $\dfrac{1}{x} + \dfrac{1}{y}$.

Students will ask themselves "How to solve the addition of two fractions? If we add up in the usual way it is $\frac{y+x}{xy}$. However, if given x + y = 12 and xy = 4 then it will be $\frac{12}{4} = 3$ (Note: students never look for specific values of x and y, but they look for the sum of the reciprocals).

B. Draw a Diagram

This strategy can help students to reveal the information contained in the problem so that the relationship between the components in the problem can be seen more clearly. When the teacher tries to teach this strategy, it is necessary to emphasize that the drawing or diagram that is made does not need to be perfect, too good or too detailed. The things that need to be drawn or diagrammed are the most important parts that are expected to be able to clarify the problems at hand.

The following is an example of implementing the Draw a Diagram strategy. Andra has a measuring cup containing 9 liters of the mixture (50% alcohol and 50% water). The science experiments he conducted required him to reduce the alcohol concentration to 30%. How many liters of water should be added?

To solve a problem like the one above, using only one strategy is not enough. Basically this problem can be solved by algebra/linear equations. But by drawing the situation that occurs can make it easier for us to understand and solve the problem.

We will describe the situation at hand to see what actually happened

| 9 | + | x | = | (9 + x) |
| 50% alcohol | | 0% alcohol | | 30% alcohol |
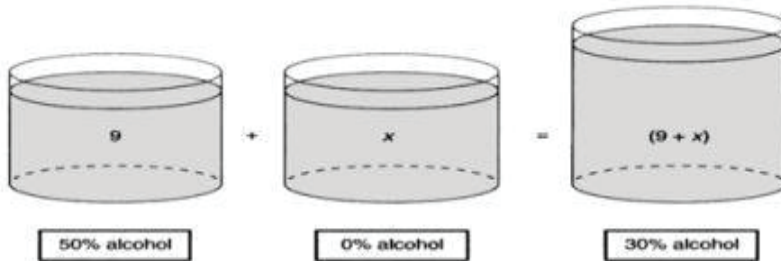
The number on each measuring cup represents the amount of mixture contained, and the number below the measuring cup represents the percentage of alcohol present in each liquid in the glass. Namely, the first glass contains 9 liters of liquid with 50% alcohol content; the second glass contains x liters of liquid with an alcohol content of 0% (no alcohol at all); the last glass contains 9+x liters of liquid with an alcohol content of 30%.

Now we will write an equation that represents the amount/content of alcohol in the measuring cup:

(Glass 1)		(Glass 2)		(Glass 3)
0.50 (9)	+	0.0 x	=	0.30(9 + x)
4.5			=	2.7 + 0.3x
		1.8	=	0.3x
		6	=	x

So, Andra must add 6 liters of pure water (without alcohol) to reduce the alcohol content in the liquid so that it becomes 30%.

C. Making a List

Organizing data into a table can help us in revealing a certain pattern as well as in identifying incomplete information. The use of tables is a very efficient step for classifying and compiling large amounts of data so that if new questions arise regarding the data, we will easily use the data, so that the answers to these questions can be resolved properly. The following is an example of implementing the Making a List strategy. Pak Syafril decided to get money from the business of buying and selling prepaid cards. He bought 3 cards for 50,000 rupiah, then sold 2 cards for 50,000 rupiah. How many cards must he buy and sell to get a profit of 250,000 rupiah?

Table 1. Making a list

Transaction Order	Many cards purchased	Lots of cards for sale	Profit
1	3	2	1 card
2	3	2	2 card
3	0	2	50.000 rupiah
Amount	6	6	50.000 rupiah
	5 x 6 = 30	5 x 6 = 30	5 x 50.000 = 250.000 rupiah

D. Identifying Pattern

Mathematical activities related to the process of finding a pattern from a given number of data, for elementary school age children, can be started through a set of pictures or numbers. Activities that may be carried out include observing the properties shared by a collection of available images or numbers. The following is an example of implementing the Identifying Pattern strategy.
Find the following two numbers from the sequence 1, 3, 4, 7, 11, 18, ..., ...

First we have to find then form a pattern. The first possibility is the sum of the two numbers that were previously the next number. This formation is an example of a sequence of the Fibonacci type (known as the Lucas Number) which gives the next numbers 29 and 47. It is true that more recent searches for continuation of 18 in a given sequence. However, look at the two terms of the line 1, 10, 2, 7, 3, 4 ,….

This does not seem to be solved any other way by reconciling that this sequence is actually two intertwined parts of the sequence. A sequence of number positions: 1, 2, 3, and 4 (by adding 1). Another form is with the number position: 10, 7, 4 (by subtracting 3). Then the next two numbers are 1 and 5.

Another example:
Find the sum of the first 20 odd numbers.
This problem is called simple sum. With the help of a calculator, this is trivial. The 20th odd number is 39. Then we will calculate $1 + 3 + 5 + 7 + ... + 33 + 35 + 37 + 39$. Of course some students decide to write all the odd numbers from 1 to 39 and count them. Some will apply "the looking pattern strategy" as we know Carl Friedrich Gauss when he was in elementary school. He wrote all the numbers from 1 to 39. However, it should be noted that the sum of the first odd numbers with the 20th odd number is $1 + 39 = 40$, the sum of the second and 19th numbers is $3 + 37 = 40$ etc. There are 10 pairs, and we can multiply $10 \times 40 = 400$.

We can also work on this problem with "the looking pattern strategy" but in another way:

Table 2. The Looking Strategy

Addition	Amount of Addition	Amount
1	1	1
1 + 3	2	4
1 + 3 + 5	3	9
1 + 3 + 5 + 7	4	16
1 + 3 + 5 + 7 + 9	5	25
1 + 3 + 5 + 7 + 9 + 11	6	36

The table above clearly shows that the sum of the first n odd numbers is n^2. So the answer to this problem is $20^2 = 400$. Again, pattern detection can help solve the problem.

Conclusion

According to [8], disposition is 'tendency to do something, given certain conditions. Critical thinking disposition is a disposition shown by critical thinkers. The disposition of critical thinking expressed shows the level of their critical thinking. Therefore, the way teacher candidates respond critically and spontaneously to any problem or task is a representation of their critical thinking disposition. Meanwhile [7], states that there are six levels of critical thinker development: (1) unreflective thinker, (2) challenged thinker, (3) beginning thinker, (4) practicing thinker, (5) advanced thinker, and (6) master thinker. Students are categorized as unreflective thinkers if they are not aware of significant problems in their thinking. Students are categorized as challenging thinkers if they are faced with significant problems in their thinking; as novice thinkers if they try to improve but without regular practice; practitioner thinkers if they recognize the need for regular practice; as advanced thinkers if they advance according to their practice. Finally, students are categorized as master thinkers if good habits of mind become second nature to them.

Classification into six levels is very dependent on the researcher. Research [16] wants a simpler level, namely four classifications, namely (1) non-critical thinkers / non-critical thinkers, (2) emergent critical thinkers, (3) developing critical thinkers, and (4) mastering critical thinker. Students are categorized as non-critical thinkers if they do not realize that they must behave critically towards the things they have to do or believe. Students were categorized as emergent thinkers if they expressed a need to behave critically, after being challenged by questions from their responses; as developing critical thinkers if they are always aware that they need to respond critically to any input given to them, even if the response is incomplete or inaccurate; as mastering critical thinkers if they always present their critical thinking skills appropriately to produce the best response for the things they have to do or believe.

If it is associated with the era of Society 5.0 which carries the theme of development focused on humans (smart society), then the attitude of critical thinking disposition becomes a necessity that must be owned by every individual. The smart community in question is certainly not in certain circles, but evenly distributed in all groups and starting from the smallest education unit,

References

[1]   U. Sumarmo. "Kumpulan Makalah Berpikir dan Disposisi Matematik Serta Pembelajarannya", UPI Bandung. 2013.

[2]   NCTM, "Principles and Standars for school Mathematics". Reston: VA:NCTM. 2000.

[3]   *Merriam-Webster Online Dictionar,* http://www.merriam-webster.com/

[4]   H. Ma, "Critical Thinking Dispositions of Undergraduate College Students in a Comprehensive University of Mainland China". *International Journal of Higher Education*, *10*(6), 224-237. 2021.

[5]   S. Stewart, J. Troup, & D. Plaxco, "Reflection On Teaching Linear Algebra: Examining One Instructor's Movements Between The Three Worlds Of Mathematical Thinking". *ZDM Mathematics Education, 51*, 1253–1266, 2019, https://doi.org/10.1007/s11858-019-01086-0

[6]   P. R. Diningrum, E. Ahar, & A. Faradilah, Hubungan Disposisi Matematis Terhadap Kemampuan Komunikasi Matematis Siswa Kelas VII di SMP Negeri 27 Jakarta, *Seminar Nasional Pendidikan Matematika. Universitas Muhammadiyah Prof. DR. Hamka.* 2018.

[7]   Z. Mozaffari, M. H. Abdollahi, V. Farzad, & Y. Ghayedi, "The Effectiveness of Critical Thinking Training Based on the Paul-Elder Model on Students' Critical Thinking Skills". *Educational Psychology*, *18*(44), 20-29. 2021.

[8]   V. Ennes-Vidal, R. F. Menna-Barreto, A. L. Santos, M. H. Branquinha, & C. M. d'Avila-Levy. A Calpain Inhibitor, Affects Trypanosoma Cruzi Metacyclogenesis, Ultrastructure and Attachment to Rhodnius Prolixus Midgut. *PLoS One*, *6*(4), e18371. 2011.

[9]   P. Facione, & C. A. Gittens, *Think critically*. Pearson. 2015.

[10]   K. Kartinah, & D. Prasetyowati, (2022). "Students' Cognitive Engagement in Problem Solving and Online Learning". *KnE Social   Sciences*, *7*(14),   1012–1020.   2022. https://doi.org/10.18502/kss.v7i14.12051

[11]   A. S. Posamentier, & B. Smith, "*Teaching Secondary School Mathematics: Techniques and Enrichment*". 2020.

[12]   E. Suherman, dkk. "*Stategi Pembelajaran Matematika Kontemporer*". Universitas Pendidikan Indonesia, 2003.

[13]   T. Y. E. Siswono, Proses Berpikir Kreatif Siswa Dalam Memecahkan dan Mengajukan Masalah Matematika. *Jurnal Ilmu Pendidikan*, *15*(1). 2016.

[14]   A. S. Posamentier, & S. Krulik, *Problem-Solving Strategies in Mathematics: From common approaches to Exemplary*

Strategies (Vol. 1). World Scientific Publishing Company. 2015.

[15]   Texas Essential Knowledge and Skill. Study of Essential Knowledge and Skills and Assessment Instrument. 2006.

[16]   H. Basri,& A. R. As' ari, (2019). Investigating Critical Thinking Skill of Junior High School in Solving Mathematical Problem. *International Journal of Instruction*, *12*(3), 745-758. 2019

The Role of Disclosure Language Towards Brand Awareness, Consumer Attitudes, and Purchase Intention on Advertising Posts in Instagram

Kristiningsih[1], Rica Sih Wuryaningrum[2]

Introduction

The development of advertising is progressing very rapidly. The development progress is followed by the increasingly fierce competition between producers of goods or services who use advertising services to inform the products or services they produce. There are also various forms of advertising media information. Advertising on social media can also be called online advertising which has recently experienced very rapid development. In 2017, about 84% of the world's total digital ad spending went to Google and Facebook, making the two technology companies a duopoly in the digital advertising industry. But in 2019, something has changed. Competition is getting tighter with several competitors that have grown and are ready to take advantage of the two giants, such as Twitter and Instagramam [1]

Social media has become essential as an advertising medium for brands looking to reach consumers online. There are many ways where brands can use social media sites to engage with their target market (audience), whether using advertising pages, paid ads or sponsored posts, and electronic word of mouth [1],[2].

The term electronic word of mouth (eWOM) refers to any positive or negative statement made about a product or company by a person or institution, which is available to many people and institutions via the internet [3]. The impact of eWOM is expansive, especially for millennial consumers who are very familiar with social media and the internet.

In particular, on social media platforms, eWOM about product brands can be propagated by individuals who have the desire to share brand-related information with others on their social networks [4]. The shared information is, then passed on through multiple people connected within and between consumer-owned social networks.

[1] Economy and Business Faculty, Wijaya Kusuma University Surabaya, Kristiningsih@uwks.ac.id

[2] Economy and Business Faculty, Wijaya Kusuma University Surabaya

Instagram, a mobile-based photo and video sharing application, is currently one of the most popular social media platforms for influencer marketing. Influencers on Instagram often gather large numbers of followers by uploading (posting) aspirational photos using hashtags (#) and engaging with followers on the site, leading to the emergence of the term Instafamous, [5]. *Instafamous* is a person/ institution that has a lot of followers.

When uploading (post) photos by influencers on Instagram they often use language disclosure, that was the use of the hashtag sign (#) in terms of social media called a hashtag, to advertise a product. Effective advertising disclosure can facilitate content recognition as advertising and thereby trigger consumer prior knowledge of persuasion.

Language disclosure is the that was in the information submitted by the source. In the case of advertising language disclosure, mostly expressed in symbols, are interpreted by consumers as information interpreted in the minds of consumerrs [6]. To effectively disclose the conveying information, two sequential processes must occur: (1) Consumers must first pay attention to the disclosure and then be able to understand the messages conveyed. In advertising, language disclosure refers to the consumer awareness of the brand only when consumers see it [7]

Brand awareness is the ability of consumers and potential customers to recognize a brand, product, or service. Companies need brand awareness because this is where the company forms a consumer and sales base. Having a strong brand awareness is the key to excelling in business competition base. Having a strong *brand awareness* is the key for companies to excel in business competition (Aaker, 1997). The effects of advertising activities will affect brand awareness, attitudes and purchase intentions [8]..

Consumer attitudes have three elements: cognitive information, affective information, and information about consumers' past behaviour and future intentions. In other words, attitude consists of thoughts or beliefs, feelings, and behaviour or intentions towards certain things, which are usually goods or services. Attitudes are what consumers like and don't like. Attitude towards objects is a learned tendency by consumers to evaluate objects in a way that supports (positive) or does not support (negative) consistently [9]. The role of attitude in a person's life is crucial because if the attitude has been formed in a person, then the attitude will also determine his behaviour in dealing with certain objects.

Purchase intention defines a person's intention to buy a certain brand that they have chosen for themselves after evaluating. We can

measure the purchase intention variable, for example considering the brand for purchase and expecting to buy the product in the future [10] in [11]. To carry out the purchase intention of a particular brand requires an assessment of all brands available in the market [12] in [11]. It shows that the approach to a particular brand has a significant effect on purchase intention [13] .

Previous research has shown that the presence of language disclosure can positively affect advertising recognition. And this advertising recognition will have an impact on consumer attitudes and purchase intentions [3]. But previously, [6] found that language disclosure is the position in the middle or bottom of an advertisement, and words using "advertising" or "sponsored" affect advertising recognition but generally lead to more negative evaluations by consumers. The inconsistency of the results of this study makes the reason for the need for further research on language disclosure. This study uses brand awareness as a mediating variable in the relationship between language disclosure on consumer attitudes and purchase intentions.

Consumers who are signalled in the advertising posts on Instagram will activate their persuasive knowledge structures that result in defensive coping mechanisms [14], such as scepticism, resistance, or contra, which can have negative impacts on their attitudes and behaviour [3].

Until now, few consumers are aware of the characteristics of language disclosure which in advertising language is often indicated by the hashtag symbol (#). In America, various hashtags appear in posts about products such as #sponsored, #paidad and some posts without # [6]. Therefore, this study aims to determine the effect of language exposure in the hashtag form # on influencer brand posts on Instagram on brand awareness, brand attitudes, and purchase intentions.

Method

The population in this study were all consumers who have Instagram social media accounts. In the study, several Instagram posts were selected that would be assessed by respondents showing the language of disclosure by using the hashtag symbol/hashtag #, for example, #exelso, #hondabrio, #vivo, and others. The sample was selected using purposive sampling, where respondents were selected based on the following characteristics: Have an Instagram account, Age 16 years and over, Actively posting or reading other people's posts every day, Knowing product advertising posts using the hashtag symbol. The sample is as many as 150 respondents because 100-500

respondents in social research were considered appropriate. From 150 respondents who filled out questionnaires processed 144 eligible questionnaires for the next stage. The results of the questionnaire were processed using WarpPLS 6.0 software.

Research instruments must be of standardized quality and follow the criteria of validity and reliability testing techniques. The validity test used to test the validity of the questionnaire is to ensure that the question items used in this study can be understood by the respondents. In testing indicators with data analysis techniques using partial least squares (PLS), the validity of an indicator is determined by the outer loading score. The outer model or measurement model, in principle, is testing indicators against latent variables, or in other words measuring how far the indicator can explain the latent variables. In testing the validity of a research instrument using data analysis techniques from partial least squares (PLS), some things need to be done, namely measuring convergent validity, and the average variance extracted (AVE) value.

Results And Discussion

Based on Table 1, all indicators have met the requirements of convergent validity, namely loading factor above 0.50, and all indicators are significant with a p-value <0.05. So they are used to measure all research variables that are declared valid and can be used for further analysis.

Table 1 Output Combinne Loading And Cross Loading

	disclosure	awareness	attitude	intention	Type as define	SE	p-value
disclosure1	**0.551**	0.048	0.048	-0.155	Reflect	0.079	<0.001
disclosure2	**-0.165**	-0.310	-0.310	0.321	Reflect	0.069	<0.001
disclosure3	**-0.300**	0.267	0.267	-0078	Reflect	0.071	<0.001
disclosure4	**0.433**	0.100	0.100	-0.351	Reflect	0.076	<0.001
awareness1	0.798	**0.207**	0.207	-0.194	Reflect	0.071	<0.001
awareness2	0.550	**0.380**	0.380	-0.108	Reflect	0.075	<0.001
awareness3	0.793	**-0.228**	-0.228	0.118	Reflect	0.071	<0.001
awareness4	0.799	**-0.242**	-0.242	0.151	Reflect	0.071	<0.001
attitude1	-0.121	0.861	**0.861**	-0.051	Reflect	0.070	<0.001
attitude2	0.055	0.885	**0.885**	0.013	Reflect	0.069	<0.001
attitude3	0.065	0.850	**0.850**	0.039	Reflect	0.070	<0.001
intention1	0.100	-0.205	-0.205	**0.849**	Reflect	0.070	<0.001
intention2	-0.100	0.205	0.205	**0.849**	Reflect	0.070	<0.001

To fulfill a research indicator validity, the *Average Variance Extracted* (AVE) value must be above 0.50. The following is a table display of AVE values .

Table 2 Average Variance Extracted (AVE)

disclosure	awareness	Attitude	intention
0.436	0.552	0.749	0.721

Table 2 shows the value of the Average Variance Extracted (AVE), the fourth construct had met the criteria that are above 0.5. With the highest value of 0.749. So, it can be concluded that all indicators in this study are valid. The next test is reliability testing which shows the consistency and stability of measuring instruments or research instruments in measuring a concept or construct. Reliability testing always coincides with construct validity testing. A valid construct is reliable, on the other hand, a reliable construct is not necessarily valid. There are two assessments to measure the reliability of research instruments, namely composite reliability and Cronbach's alpha. A research instrument is said to be reliable if it has a value of the reliability of composite (composite reliability) with a value > 0, 70 and Cronbach's alpha must be above 0.60. The following table shows the value of composite reliability and Cronbach's alpha

Table 3 Output Latent Variable Coefficients for Composite Reliability and Cronbach's Alpha

|	disclosure	awareness	attitude	intention
R squared		0.146	0.375	0.175
Adj.R-squared		0.139	0.365	0.162
Composite reliability	0.730	0.828	0.900	0.838
Cronbach's alpha	0.531	0.721	0.833	0.612
Avg. var. extract	0.436	0.552	0.749	0.721
Full collin VIF	1,638	1.175	2.085	1.482
Q-squared		0.147	0.374	0.179

In Table 3, the four constructs have composite reliability values with the lowest score of 0, 60, namely constructs of interest. Furthermore, from the table above, the four constructs measured in this study have Cronbach's values above 0.6. It means that all indicators of the constructs in this study are reliable.

The next step is to test the goodness of the model. The test is used to determine the goodness of the research model (model fit). The following is a table of test results for the fit model and quality indic*es*

Table 4 Model Fit And Quality Indices

Size	Score	Criteria
Average path coefficient (APC)	0.320 P<0.010	Accept if p value <0.05
Average R squared (ARS)	0.232, P=0.01	Accept if p value <0.05
Average adjusted R squared (AARS)	0.222, P=0.002	Accept if <0.05
Average block VIF (AVIF)	1.086	Accept if p value < 5
Average full collinearity VIF	1,595,	Accept if <5
Tenenhaus GOF	0.377	Low>0.1, med>0.25, high> 0.36
Symson's paradox ratio (SPR)	1,000	Accept if>0.7
R squared contribution ratio (RSSR)	1,000	Accept if>0.9
Statistical suppression ratio (SSR)	1,000	Accept if >0.7
Non linear bivariate causality direction ratio	1,000	Accept if>=0.7

In Table 4. all criteria are met except for Non-linear bivariate causality (1,000). However, the results are still close to the value of the acceptance criteria, so it is still said to be quite good. Thus, the test of the model built in this study showed results that met the goodness of fit requirements. It means that the model fits to predict the actual conditions in the field.
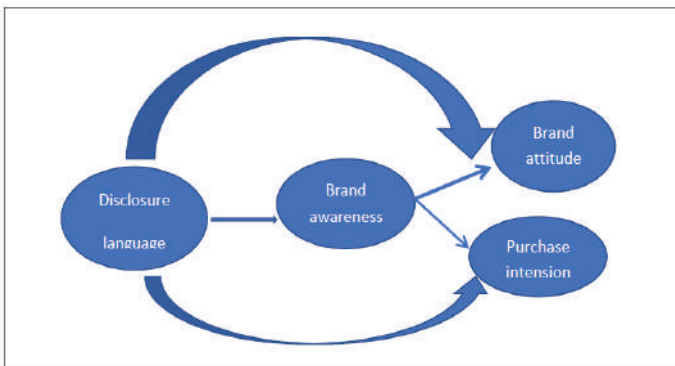
Figure 1 Estimated Output

The magnitude of the p-value is used to find out whether the hypothesis test is accepted or rejected. If the p-value < 0.05, then H0 states that there is no effect of exogenous variables on endogenous variables is rejected and Ha states that there is an effect of exogenous variables on endogenous variables is accepted. The estimation results of path coefficients to test the strength of the influence between

variables and explain the relationship between variables can be seen in the following table:

Table 5 Path Coefficients Estimation Results

Hypothesis	*Path coefficients*	*p-value*	Information
disclosure to awareness	0.38	<0.01	significant
awareness to attitude	0.10	0.11	not significant
awareness to intention	0.26	<0.01	significant
disclosure to attitude	0.57	<0.01	significant
disclosure to intention	0.29	<0.01	significant

Discussion

The Influence of Language Discourse on Brand Awareness

The results of the research conducted indicate that the *p value of* the language disclosure on brand attitude has a significance value of < 0.01 or a significance value of less than 0.05. Based on these results can be stated that language disclosure impact significantly on *brand awareness* because *Path coefficient* is worth 0.38 and is positive, so the first hypothesis which states that language disclosure positive influence on brand awareness is received. This study explains that if Instagram users know that there is an advertising message in words with the hashtag # symbol in an Instagram post, then they will know about the ad so that consumer awareness of the brand appears. The better consumers rate advertising messages marked with hashtags, the better the level of consumer awareness of the brand. This statement supports research conducted by [15] and [7].

Effect of Brand Awareness on Consumer Attitude

The research results indicated that the p-value of brand awareness on consumer attitudes has a significance value of 0.11 or a significant value of more than 0.05. Based on these results, it can be stated that brand awareness has no significant effect on consumer attitudes. The path coefficient value is 0.10 (positive) so that the second hypothesis that explains brand awareness has a positive effect on consumer attitudes, was not accepted. This study explained that if the audience of Instagram users has the advertised product brand awareness, it does not affect consumer attitudes towards the brand which contradicts the research conducted by McDaniel (1996). It happens because Instagram users, mostly teenagers, are more likely to be indifferent to an advertisement object. Consumer awareness in a product advertisement is not able to make consumers believe, but only reminds consumers of the product.

The Brand Awareness on Purchase Intention

The research results indicated that the p-value for brand awareness of purchase intention has a significance value of <0.01 or a significant value less than 0.05. Based on these results, it can be stated that brand awareness has a significant effect on purchase intention. The path coefficient value is 0.26 (positive), so the third hypothesis explains that brand awareness has a positive effect on purchase intention is accepted. The results explain that the more consumer awareness about the brand ads, the better consumer intention to purchase the brand.

The Influence of Language Disclosure on Consumer Attitude

The results of the research conducted indicate that the p-value of language disclosure to consumer attitude has a significance value of <0.01 or a significance value less than 0.05. Based on the results, it can be stated that disclosure language has a significant effect on consumer attitudes. The path coefficient value is 0.57 (positive) so that the fourth hypothesis that explains language disclosure has a positive effect on consumer attitudes, was accepted. This study explains that if the Instagram users see an ad postmarked with the hashtag #, they will want to know more about the ad, which makes them have more knowledge, then, believe in the advertised product. The better the consumers understand the advertisement marked with the hashtag #, the more they believe and like the product advertised in the advertisement postmarked with the hashtag # on Instagram. This statement is in line with research conducted by [15] which states that language disclosure has a positive effect on consumer attitudes.

Effect of language disclosure on purchase intention

The research result indicated that the p-value of language disclosure to purchase intention has a significance value of <0.01 or a significance value less than 0.05. Based on the results, it can be stated that disclosure language has a significant effect on purchase intention. The path coefficient value is 0.29 (positive), so that the fifth hypothesis that explains language disclosure has a positive effect on purchase intention, was accepted. This study explained that if the audience of Instagram users sees an ad postmarked with the hashtag #, it has a strong desire to buy the advertised product. The better the consumer understands the advertisement marked with the hashtag #, the higher the desire to buy the product advertised in the advertisement postmarked with the hashtag # on Instagram. This statement is in line with research conducted by [15] which states that language disclosure has a positive effect on behavioral intentions.

The managerial implication that can be drawn from this research is that marketers can use signs/symbols in advertisements such as #hastag signs or others because it is proven that the presence of these signs can invite consumer attention. The existence of language disclosure will make consumers aware that the posts in the media focus on words marked with hashtags, which allows the audience to realize that the products advertised with these marks so that consumers become aware of the brand, which in turn will increase consumer attitudes and their desire to buy the product. Companies can make more creative signs and symbols to increase audience attention on advertisements. So that posts from influencers can be made more creative with more interesting marketing content as the first step in implementing digital marketing.

Conclusion

This study aims to analyze language disclosure to brand awareness, your brand attitude, purchase intention. The results of this study accept most of the proposed hypotheses. Language disclosure has a significant effect on brand awareness. While brand awareness does not affect consumer attitudes but affects purchase intention. The results also show that language disclosure has a significant effect on consumer attitudes and purchase intentions. The theoretical implication that can be drawn from this research is that language disclosure is effective in providing consumer awareness of the advertised product, a tendency to believe the advertised product and a desire to buy. Suggestions for further research are to measure how many ad impressions with words marked with hashtags are effective to be displayed in advertisements and measure the credibility of influencers in influencing consumer attitudes and purchase intentions.

Reference
[1]   CNBC, "*Persaingan Bisnis Iklan di Jagad Maya*," Indonesia, 2019.
[2]   CNBC, "*Sosial Media Marketing: Pengertian, Jenis, Strategi dan Manfaatnya*," Jakarta, Nov. 2020.
[3]   N. J. Evans, J. Phua, J. Lim, and H. Jun, "Disclosing Instagram Influencer Advertising : The Effects of Disclosure Language on Advertising Recognition , Attitudes , and Behavioral Intent," vol. 2019, no. September 2017, pp. 0–39, 2019, doi: 10.1080/15252019.2017.1366885.

[4]   S. Chu, S. M. Choi, and S. Chu, "Electronic Word-of-Mouth in Social Networking Sites : A Cross-Cultural Study of the United States and China Electronic Word-of-Mouth in *Social Networking Sites : A Cross-Cultural Study of the United States and China*," no. February 2015, pp. 37–41, 2011, doi: 10.1080/08911762.2011.592461.

[5]   C. Dewey, "Inside the World of the 'Instafamous," *Washington Post*, Washington, Feb. 2014.

[6]   B. W. Wojdynski, N. J. Evans, B. W. Wojdynski, and N. J. Evans, "Going Native : Effects of Disclosure Position and Language on the Recognition and Evaluation of Online Native Advertising Going Native : Effects of Disclosure Position and Language on the Recognition and Evaluation of Online Native Advertising," vol. 3367, 2016, doi: 10.1080/00913367.2015.1115380.

[7]   S. C. Boerman, E. A. Van Reijmersdal, and P. C. Neijens, "Sponsorship Disclosure : Effects of Duration on Persuasion Knowledge and Brand Responses," vol. 62, pp. 1047–1064, 2012, doi: 10.1111/j.1460-2466.2012.01677.x.

[8]   S. . McDaniel, "An Experimental Study of Perceived Sponsorship Effects on Brand Awareness, Attitude Toward the Brand and Purchase Intention," 2008. doi: https://doi.org/10.1300/J057v03n01_09.

[9]   H. Assael, *Consumers Behavior and Marketing Action*, 3rd ed. Boston Massachussets: Kent Publishing Company, 2002.

[10]   M. Laroche and C. Kim, "Brand Familiarity and Confidence as Determinants of Purchase Intention: An Empirical Test in a Multiple Brand Context," vol. 2963, no. 1970, 1996.

[11]   S. Khan, I., Ghauri, TA, & Majeed, "Impact of brand related attributes on purchase intention of customers. A study about the customers of Punjab, Pakistan," *Interdiscip. J. Contemp. Res. Bus. ,* vol. 4, no. 3, pp. 194-200., 2012.

[12]   L. Teng and M. Laroche, "The effects of multiple-ads and multiple-brands on consumer attitude and purchase behavior," 2012, doi: 10.1108/07363760710720966.

[13]   S. P. Brown and D. M. Stayman, "Antecedents and Consequences of Attitude toward the Ad : A Meta-analysis," vol. 19, no. June, 1992.

[14]   M. Friestad and P. Wright, "The Persuasion Knowledge Model : How People Cope with Persuasion Attempts," vol. 2, pp. 1–31, 1994.

[15]   N. J. Evans, J. Phua, J. Lim, and H. Jun, "Disclosing Instagram Influencer Advertising : The Effects of Disclosure Language on

Advertising Recognition , Attitudes , and Behavioral Intent Disclosing Instagram In fl uencer Advertising : The Effects of Disclosure Language," vol. 2019, 2019, doi: 10.1080/15252019.2017.1366885.

Challenges of 5.0 Era for Palm Oil Human Resources

Lili Dahliani dan Harries Marithasari

Introduction
The Importance of the Palm Oil Industry

Palm oil (Elaeis guineensis Jacq) is one of the mainstay commodities that contributes to foreign exchange earnings, employment and many other benefits as shown in its industrial tree with total oil and palm kernel production of 51 443,315 tons in 2019. Based on the palm oil industry tree , Fresh Fruit Bunches (FFB) can be processed into finished and semi-finished materials, depending on the industry and processing technology. Oil palm plantations in Indonesia are carried out by large state plantations (PBN), large private plantations (PBS), and smallholder plantations (PR). The total area of Indonesian oil palm plantations according to the estimated 2019 data is 14,677,560 ha, of which the PR area is 41% of the total oil palm area. Palm oil production from smallholders' plantations in the same year amounted to 14,846,112 tons, which is 16% of national production. The volume of national palm oil exports in 2019 was 29,135,179 tons with a value of 20,802,708 000 US$ [1].

The mainstay of the national palm oil industry and the driving force of the national economy, Indonesia's position as the world's largest exporter of palm oil. There are many expectations placed on the palm oil industry: clean and renewable energy sources that support national energy security, food supply, job creation, poverty alleviation, and reduction of social and economic inequality. Based on Oil World data, the trend of using palm oil-based commodities in the global market continues to increase from time to time, beating other vegetable oil-based industries such as wheat oil, corn oil, coconut oil. Demand for products from palm oil-based downstream industries are such as: edible oil, oleo chemical, biodiesel, and surfactant

Society 5.0 Era

"There is always an opportunity behind every challenge", that is our mindset in living life in the era of society 5.0. Technological advances have changed what was originally uncontrollable and unpredictable to be predictable, in that era. The demands of a sustainable production process system lead to "best practices" governance efforts towards a "precession plantation management" approach [2]. Smart Society 5.0 is people-centered (A New

Humanism) and not a future that is controlled and monitored by AI and robots initiated by the Japanese state on January 21, 2019 is an improvement in technology 4.0 that causes disruption, which has the potential to reduce the role of humans and erode the identity of humanity and causing complex and ambiguous uncertainty (VUCA) so that it can erode the values of human character that have been maintained so far [3].

The implementation of the Society 5.0 era places humans as the main element in the development of life accompanied by advances in technology and information, especially in achieving the SDGs 2030 target. This encourages humans, especially the millennial generation to act as agents of change whose role is to trigger a change [4] [5]. Society 5.0 because its own role is to fulfill social aspects that must be available at all times, have high quality, and support sustainability issues [6].

Indonesian Palm Oil Portrait

Indonesia is the main producer of palm oil in the world, followed by Malaysia and Thailand. In order to maintain this main position, qualified human resources are needed. The following is a portrait of Indonesian palm oil according to the results of several studies and studies [7] [8]

A. Indonesia's export composition is still dominated by primary commodities (very vulnerable to price fluctuations and has low added value).

B. Low productivity, uncertified seeds, most plants need rejuvenation and have not implemented GAP.

C. Competition in competition in vegetable oil competition, between oil palm plantation companies and with non-palm vegetable oil

D. Time and cost inefficiency where currently most of the existing oil palms are old and need to be revitalized negative campaigns on Indonesian palm oil production related to issues of economic competition with other vegetable oils in the world market, social issues and rural development, nutrition and health, and issues related to the environment and sustainability.

E. Competence of palm oil human resources. Facing obstacles ranging from upstream (plantation sector), manufacturing (processing) and trade. Barriers to market access in some export destination countries

F. National Action Plan (RAN) for Sustainable Oil Palm Plantation 2019-2024 starting from: finalizing the status

of oil palm plantations, empowering smallholders, utilizing oil palm as a new renewable energy, increasing diplomacy related to oil palm, to accelerating the achievement of sustainable Indonesian oil palm plantations. Energy, the energy potential of palm oil has not been exploited

G. Accelerate the implementation of Indonesian Sustainable Palm Oil Plantation Certification (ISPO) and increase market access for palm oil products

H. It is indicated that the forest area (millions of ha) of oil palm plantations is in forest areas, this is related to legality & licensing issues for several oil palm plantations which have an impact on business disturbances & conflicts

Discussion
The Excellent Human Resources of Society 5.0 Era

Referring to the portrait of oil palm above, the facts show the problems that are a challenge for palm oil human resources to find solutions. The solution is of course adapted to the millennial era where smart technology is blocking the 5.0 society that can be carried out by superior, qualified and competitive human resources. Superior human resources are those who can develop their potential and other resources as optimally as possible. The ability to cooperate (teamwork) is very important in the era of globalization, because with this ability it will become a potential strength for an organization or institution.

The demands of the Industrial Revolution 4.0 require competent human resources who can reflect technological sophistication and data literacy based on the speed of technological development so that they will be more innovative and adaptive in their work environment. The demands of Revolution 4.0 require the implementation of an up-skilling or reskilling program for workers or university graduates based on the current needs of the industrial world [9].

Society 5.0 is a concept of community technology that is human-centered and collaborates with technology (AI and IoT) to solve social problems that are integrated in virtual and real world spaces [10]. The pattern of human life is based on information and technological innovation, transforming big data through the internet in all areas of life, [11] society 5.0 said that society 5.0. It is hoped that it will transform big data collected through the internet in all areas of life into a new wisdom, to improve human ability to open up

opportunities for humans. The fields of marketing, education and e-government are some areas that are expected to be able to implement society 5.0 [6].

Society 5.0 is based on various pillars, including Industry 4.0 and cybernics. The Vision of Society 5.0 demands a transformation in learning and the importance of educational transformation; 21st century learning and its implications for educators; and developing literacy competencies and strengthening education [12]. Society 5.0 is present as a concept that is considered capable of bringing out the human side of the use of technology where the use of technology is intended for the benefit of citizens. E-government in supporting the creation of society 5.0 through aspects of economic, social, and environmental sustainability [6].

The role of e-government in society 5.0 is not only in creating work efficiency and effectiveness, through the use of technology it can also provide equal access to services for the community as well as environmental conservation and the policies made will continue to adapt to the needs of the community. ultimately have an important contribution in building society. The company will lead to long-term profit, efficiency and productivity. Transportation and communication costs will decrease, global logistics and supply chains will become more effective, and trade costs will decrease, all of which will open up new markets and promote economic growth [6].

Education of 5.0 Society Era

One of the challenges of human resources in the 5.0 era, including in the palm oil industry, can be faced through education. According to [13] that education can improve IT competence and innovative behavior with a real role or contribution in increasing educational satisfaction. Contribution that is real and in the direction of satisfaction. This means that the competence of the principal is able to increase job satisfaction. The high competence will be accompanied by the higher job satisfaction. Preparing superior and competitive human resources in the era of Society 5.0 must involve educational institutions, community elements and stakeholders starting from the central and local governments, non-profit organizations, and the community including stakeholders in the palm oil industry. Education plays an important role in welcoming smart society 5.0. Education is not only oriented to the present, but is dynamic and anticipatory for change. Education aims to create an intelligent, characterized and humane society. In the Era of Society 5.0, the role of teachers, peers, family, and the environment has an important role as character building and values that must be possessed by Indonesian people,

4 mandatory competencies in learning, namely knowledge, skills, attitude and values.

The role of educators, knowledge transfer and university research must be adapted to the character of society 5.0. The world of education plays an important role in facing the era of society 5.0, related to activities to improve the quality of human resources. Education units are also needed to deal with changes in the educational paradigm in this era of society 5.0. One of them, educators minimize their role as learning material providers, educators become inspiration for the growth of student creativity. Educators act as facilitators, tutors, inspirations and true learners who motivate students to "Learn Independently," [3].

The application of soft skills in the era of society 5.0 plays an important role in the transfer of knowledge in that era because the nation's fundamentals are one of the developments of soft skills and cannot be replaced with any tools and technology (Rahayu et al, 2021). Higher education research is an important factor in supporting the realization of the industrial revolution, which can be seen as a fundamental change in human way of life and work processes. Advances in information technology that integrates the two worlds; the world of life with the digital world was created in the Industrial 4.0 era, which of course has an impact on various disciplines. The impact of the Industrial Revolution 4.0 and Society 5.0 opened up new opportunities for Indonesia. build a manufacturing industry that is globally competitive. Through the acceleration of industry 4.0, the launch of Making Indonesia 4.0 is seen as a roadmap and strategy for Indonesia to enter the current digital era. Making Indonesia 4.0 is expected to provide a clear direction for the movement of national industries in the future [14]

Three main abilities that need to be possessed and require every individual in the era of society 5.0, namely: creativity, critical thinking, communication and collaboration. Character values must be developed, empathy and tolerance must be fostered along with the development of competencies that think critically, innovatively, and creatively according to Sumarno's (2019) statement that 21st century skills socialized by the Director General of Education and Culture of the Ministry of Education and Culture (2017) consist of four types of skills, namely: 1) critical thinking and problem solving skills; 2) communication skills; 3) creativity and innovation; and 4) collaboration.

Conclusion
   A. The challenges faced by Indonesian palm oil in the world vegetable oil trade competition are currently increasing complex: the opposition of the European market to the issue of deforestation in the country, the global acceptance of Indonesia Sustainability Palm Oil (ISPO), industrial partnership patterns so that plantation farmers get facilities to increase productivity, can get financing, and will later strengthen the supply chain.
   B. Facing these challenges requires human resources who have basic digital technology skills and a creative mindset or mindset, because competency prerequisites in the 21st century focus on problem solving ability, collaboration, critical thinking, and creativity skills, human management, coordination, emotional intelligence, assessing & make decisions, service oriented, negotiation skills, and cognitive flexibility.

References
[1]   Direktorat Jendral Perkebunan, *Statistika Perkebunan Indonesia 2020-2022*. Kementrian Pertanian Indonesia. Jakarta, 2020.

[2]   L. Dahliani, *Kapita Selekta Teknologi Perkebunan*. IPB Press Bogor (ID), 2019.

[3]   K. H. Laila, "Menyiapkan Pendidik Profesional Di Era Society 5.0," *http://ditpsd.kemdikbud.go.id*, 2021.

[4]   F. Rahman, "Society 5.0: Konsep Peradaban Masa Depan – HMIF ITB Tech – Medium," *Medium.com*, 2019.

[5]   A. Firdaus, "Optimalisasi potensi teknologi generasi millenial melalui investasi digital di era society 5.0," *J. Integr. dan Harmon. Inov. Ilmu-Ilmu Sos.*, vol. 1, no. 10, 2021, doi: 10.17977/um063v1i10p1131-1137.

[6]   S. Sugiono, "Peran E-Government dalam Membangun Society 5.0: Tinjauan Konseptual terhadap Aspek Keberlanjutan Ekonomi, Sosial, dan Lingkungan," *Matra Pembaruan*, vol. 5, no. 2, 2021, doi: 10.21787/mp.5.2.2021.115-125.

[7]   L. Dahliani, *Pengelolaan Produksi dan Biaya agroindustry.* Bildung Nusantara Yogyakarta, 2020.

[8]   L. Dahliani, *Manajemen Risiko Produksi Di Kebun Kelapa Sawit.* Nuta Media Jogja, 2021.

[9]   H. A. Pratama and H. D. Iryanti, "Transformasi SDM Dalam Menghadapi Tantangan Revolusi 4.0 di Sektor Kepelabuhan,"

Maj. Ilm. Bahari Jogja, vol. 18, no. 1, 2020, doi: 10.33489/mibj.v18i1.229.

[10] Centipedia, "Apakah itu Society 5.0?," *29 Januari*, 2019.

[11] S. Suyitno, "Kebutuhan Keterampilan Pada Revolusi Industri 4.0 Dan Era Society 5.0," *Semin. Nas. Pendidik. Dasar*, 2020.

[12] S. Suwandi, "Implementasi Pembelajaran Abad Ke-21 Dan Tantangannya Untuk Berperan Dalam Masyarakat 5.0," *Pros. Semin. Nas. Pendidik. Progr. Pascasarj. Univ. PGRI*, vol. 15, no. 1, 2020.

[13] K. Sukadana and L. P. Mahyuni, "Teknologi Informasi, Perilaku Inovatif, Kompetensi, Kepuasan Kerja, Dan Kinerja Manajemen Pendidikan 4.0," *J. Adm. dan Manaj. Pendidik.*, vol. 4, no. 1, 2021, doi: 10.17977/um027v4i12021p10.

[14] T. Nusantara, "Society 5.0 dan riset perguruan tinggi indonesia," *Proseding Nas. Penguatan Ris. dan Luarannya sebagai Budaya Akad. di Perguru. Tinggi Memasuki Era 5.0*, 2020.

Product Testing of Android-based Artificial Intelligence Applications Using Standard ISO/IEC 25010

Liza Efriyanti[1]

Introduction

The results of research on R&D are in the form of products, either in the form of hardware or software or in the form of books/modules/teaching materials. Especially in R&D research in the field of computer science, it is necessary to have a product measuring instrument that is produced, especially in an application or information system. The purpose of measuring the resulting product is useful to show the quality of the product that has been made.

There are often conflicts among educators in measuring the product/software produced by students in the field of computer education, so it is necessary to refer to a standard that can be accounted for. In pure computer science, in the manufacture of software to the software testing and maintenance stage, following the stages in one of the selected System Development Life Cycle (SDLC) models. The SDLC models commonly used are: waterfall model, incremental model, RAD and spiral model. However, the essence of these models is that there are 5 stages that are generally carried out, namely: need assessment, design, development and product testing and maintenance.

While in the realm of education in R&D research, there are several models that are often used by researchers, namely: ADDIE, 4D, Borg and Gall. In essence, each of these models also has the same slice of activities, namely: need assessment, design, product testing and dissemination.

Looking at the case of researchers for R&D for computer education students that the results of the thesis / thesis / dissertation product are in the form of software, the activities / product testing stages can be used the ISO 25010 standard, specifically for information system software or applications on artificial intelligence. However, if a computer science education student produces a product in the form of learning media or multimedia, the product trial used to

---

[1] Lecturer in the Islamic Education Management Masters Study Program,
  Universitas Sjech M. Djamil Djambek Bukittinggi,
  lizafamuth@gmail.com

test the validity uses the aiken'v formula, the practical test uses the kappa moment test and the effectiveness test uses the g-score or can also use the t-test by looking at the comparison. learning outcomes of students in the experimental class using media/multimedia products with the control class with learning as usual without any treatment.

Software quality really needs to be maintained. Software quality is a software process that is effectively implemented and is able to provide useful products for its users. Useful software has three important points, namely the effectiveness of the software process, products that are able to deliver content and functions and are able to provide more value for software users. Various kinds of software testing standards including McCall, Boehm, FRUPS, Dromey, Bertoa, ISO 9126, and ISO 25010.[1]

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) are standards used by the international community to evaluate or measure software quality. The ISO/IEC used in this study is version 25010, which is an advanced version of ISO/IEC 9126 which adds several structural and quality model standards. In measuring software quality, ISO 25010 has 8 characteristics, including functional suitability, performance suitability, compatibility, usability, reliability, security, maintainability, and portability [2].

Discussion

According to Ben David, there are several aspects of software quality testing with the ISO/IEC 25010 standard to test mobile applications. These aspects are functional suitability, compatibility, and usability [3].

A. Functional Suitability

Aspects of the function of meeting the needs used in the application under certain conditions, whether the existing functions in the software are in accordance with user needs [4]. This aspect is divided into three characteristics, namely [4]:
1. Functional Completeness, measuring features or functions that can work or carry out their duties completely without the slightest obstacle.
2. Functional Correctness, measuring functions that can provide their needs correctly and precisely.
3. Functional Appropriateness, measuring features or functions that can complete certain tasks properly according to their goals.

B. Compatibility

Aspects that measure and ensure applications can exchange information with other applications or components. This aspect also measures how far the application can run on various hardware, software or other environments. This test aims to validate the dependencies between the application being tested and its process in different environments [5]. Compatibility aspect is divided into several sub-characteristics as follows [5]:

1. Coexistence, measures how far the application can perform the required function efficiently in conditions of sharing resources with other applications, and does not have a detrimental impact on other applications.
2. Interoperability, measures how far applications can exchange information.

C. Usability

Aspects that measure the degree to which the product can be used by certain users to achieve certain goals with effectiveness, efficiency and satisfaction in certain contexts of use [5]. This aspect has several characteristics including [5]:

1. Appropriateness recognizability, measures the extent to which users can recognize whether a product or system fits their needs.
2. Learnability, measuring the ease of use of the application by the user.
3. Operability, measures whether the application already has attributes that can facilitate operation by users.
4. User Error Protection, measures the extent to which the application can anticipate errors caused by users.
5. User Interface Aesthetics, measures the possibility of pleasant and satisfying interface interactions for users.
6. Accessibility, measures the extent to which the application can be used by a wide range and the ability to achieve certain goals in a specified context of use. Capacity, measuring the application parameters are able to meet certain requirements to the maximum.

The tests used are ISO/IEC 25010 testing with three aspects referring to Ben David's opinion, namely:

A.   Functional Suitability

Functional Suitability is a test that uses the Guttman scale. The Guttman scale was used to obtain a "Yes" or "No" answer. The results of the functional suitability test are calculated using the success-fail option. The successful choice is worth 1 and the failed option is 0. The following formula is for the calculation of the test to be carried out [6]:

Eligibility percentage (%)= (score obtained/max score) x 100%

After getting the score data from the test results, then the data will be processed using the formula. After that, the percentage of results is converted into a statement according to the following table [7].

Table 1. Eligibility Percentage Conversion

Percentage	Interpretation
0% - 20%	Very Inappropriate
21% - 40%	Not Eligible
41% - 60%	Fairly Eligible
61% - 80%	Eligible
81% - 100%	Very Eligible

B.   Usability

Usability is a test that uses a USE (Usefulness, Satisfaction, and Ease of Use) Questionnaire by Lund which is distributed directly to users. The suitability of USE to the criteria for usability aspects which include the usability sub-characteristics of ISO 25010 makes it easier for users to fill out questionnaires. The questionnaire will be translated into Indonesian first so that it is easy for the respondents to understand. This test is carried out by calculating the results of questionnaire measurements from respondents or application users using 5 Likert scales, where answers on the Likert scale are scored as follows [7]:

1.   Strongly Agree (SS) is given a score of 5.
2.   Agree (S) given a score of 4.
3.   Neutral (N) is given a score of 3.
4.   Disagree (TS) is given a score of 2.
5.   Strongly Disagree (STS) is given a score of 1.

The usability test results data were analyzed by calculating the answers based on the score of each answer from the respondents with the following formula [6]:

Total score = $(J_{ss} \times 5) + (J_s \times 4) + (J_N \times 3) + (J_{TS} \times 2) + (J_{STS} \times 1)$

Information:

J_{ss} = Number of respondents answered Strongly Agree

J_s = Number of respondents answered Agree

J_N = Number of respondents answered Neutral

J_{TS} = Number of respondents answered Disagree

J_{STS} = Number of respondents answered Strongly Disagree

Before getting the score interpretation criteria of usability test results, the percentage score is searched first with the following formula [6]:

P_{score} = (total score/ (ixrx5) x100%

Information :

Total score = Total score of respondents' answers

i   = Number of questions

r   = Number of respondents

From the questionnaire data that has been processed, it can be determined how appropriate the software is used with the provisions of the usability assessment category in the following table [8]

Table 2. Score Interpretation Criteria Scale

Percentage	Interpretation
0% - 20%	Very Inappropriate
21% - 40%	Not feasible
41% - 60%	Decent enough
61% - 80%	Worthy
81% - 100%	Very Worthy

C. Compatibility has several sub-characteristics that must be tested, namely [3]:

1. Co-Existence is a testing stage that analyzes whether an application can run side by side with other applications without harming one of the applications. This test is

done by checking a list of questions in the form of a questionnaire that is assessed on the Gutman scale. The test results will be calculated using the following formula [6]:

Eligibility percentage (%)= (score obtained/max score) x 100%

The percentage results will be converted into statements according to Table 1.

2. Interoperability or testing on various operating systems and device types is carried out using the Google Firebase Test Lab which is one of the tools provided by Google. These tools allow applications to be installed on various android operating systems that are on the google firebase system virtually.

This test uses a method of observing the results obtained by using the Google Firebase Test Tab. Testing was also carried out with the Google Play Store Console by observing the results obtained after the apk file was uploaded on Google Play. The test results will determine whether the application can run on various types of Android and is eligible to pass the compatibility test in terms of the operating system and device type or not.

D. Validity Test

This validity test uses a questionnaire in the form of a checklist regarding the suitability of the material/content to be validated. The results of this test will be processed using the Aiken's V formula as follows:

$$V = \frac{\sum s}{n(c - 1)}$$

Information :

S : r-lo

lo : The lowest validity research score

c : The highest number of validity research

r : The number given by an appraiser

n : Number of raters

Table 3. Criteria for Determining the Validity of Aiken's

Presentage	Criteria
0,6 <	Not Valid
= > 0,6	Valid

The description for the 8 characteristics of ISO 25010 can be seen in the following table.

Table 4. Product Quality Model ISO/IEC 25010

No	Characteristics	(Sub) Characteristics
1.	*Functional Suitability*	*Functional Completeness*
		Functional Correctness
		Functional Appropriateness
2	*Performance Efficiency*	*Time Behaviour*
		Resource Utilization
		Capacity
3	*Compatibility*	*Co-Existence*
		Interoperability
4	*Usability*	*Appropriateness Recognizability*
		Learnability
		Operability
		User Error Protection
		User Interface Aesthetics
5	*Reliability*	*Maturity*
		Availability
		Fault Tolerance
		Recoverability
6	*Security*	*Confidentiality*
		Integrity
		Non-Repudiation
		Accountability
		Authenticity
7	*Maintainability*	*Modularity*
		Reusability
		Analysability

No	Characteristics	(Sub) Characteristics
8	*Portability*	*Modifiability* *Testability* *Adaptability* *Installability* *Replaceability*

In product testing in designing expert system applications or Android-based decision support systems, 3 characteristics are used in table 4, namely functional suitability, usability, compatibility.

Conclusion

Based on the discussion section above, the author can conclude that in making an Android-based application for the initial stage, it is enough to use product testing on ISO 25010 in the form of functional suitability, usability, compatibility and validation tests using the aiken'v formula.

References

[1]   U. Manu and R. Noviana, "A*nalysis of Unit Link Application Quality Using ISO 25010 Method (Case Study of PT Asuransi Jiwasraya Persero)*," vol. 24, no. 2, pp. 147–156, 2022.

[2]   M. S. Lamada, A. S. Miru, and R. Amalia, "Testing Lecture Monitoring System Applications Using ISO 25010 Standards," *J. Mediat.*, vol. 3, no. 3, pp. 1–7, 2020.

[3]   N. E. Raharjo and G. K. Pitaloka, "Development of Android Application-Based Learning Media with Augmented Reality for Engineering Drawing Subjects Class X Building Construction, Sanitation and Maintenance at Smk Negeri 1 Seyegan," *J. Educator. Tech. Civil,* vol. 2, no. 1, pp. 65–77, 2020, doi:10.21831/jpts.v2i1.31966.

[4]   R. D. R. Dako and W. Ridwan, "Test Characteristics of Functional Suitability and Performance Efficiency tesadaptif.net," *Jambura J. Electr. electrons. Eng.*, vol. 3, no. 2, pp. 66–71, 2021.

[5]   M. Harun, "Software Quality Evaluation With ISO/IEC 25010:2011 (Case Study: First Aid Application on Android Platform)," *J. Akrab Juara*, vol. 3, no. 3, pp. 53–61, 2018.

[6]   Alfathony, "Development of an Android-Based SI WAYSA (Sinau Wayang Sawah) Application as a Media for Introducing Wayang Sawah Art in Donangsan Village, Kulonprogo,"

Yogyakarta State University, 2019.

[7]   Sudaryono, Research Methodology in the IT Sector (Practical Guide to Theory and Case Examples). Yogyakarta: Andi Publishers, 2015.

[8]   R. D. Ristanto, Kurniawati, D. Arif, and Nawassyarif, "Analysis of Software Product Quality ISO/IEC 25010 on Talent Test Development Using a Computer-Based Test (CBT) System," *Edu Komputika J.,* vol. 7, no. 2, pp. 49–60, 2020, doi: 10.15294/edukomputika.v7i2.42546.

Modernization of the Food Sector Towards Sustainability Amongst Sabah's Community During Covid-19 Pandemic

Mansoor Abdul Hamid[1]

Introduction

A pandemic is not a brand-new occurrence because mankind has experienced numerous pandemics throughout history. Pandemics all share the same major detrimental consequences on the world economy [1]. It has been seen that COVID-19 has an effect on the entire process from the field to the customer when looking at the food supply chain, one of the most significant sectors of the economy. Food security, which includes food safety, has always been linked to the development of a sustainable food business. Most food producers place more emphasis on producing a sufficient supply of food than on other factors, particularly food safety. Food security is the ability for everyone to access adequate food to maintain an active lifestyle and good health.

The idea of food security emerged in the middle of the 1970s as a result of discussions about the international food crisis's impact on the need to guarantee the supply of basic foods and stable their price [2]. The issue is more with access than food availability because of governmental stability and unforeseen factors like the COVID-19 outbreak. A recent study revealed that there is enough food for everyone, but the MCO (Movement Control Order) throughout the Covid-19 cases was identified as the primary reason why the food supply was unsuccessful due to the poor distribution process and other factors such as political, economic, inadequate infrastructure, social, etc. [1].

The Food industry is the most potential business to develop even during an economic crisis, unstable politics in government, or unexpected conditions such as the pandemic covid-19 phase because humans still need food to sustain their life [3]. The New challenge now involved the food chain with more focus on food production, processing, distribution, and demands [4]. Covid-19 caused the control movement of people, changes in consumer demands or needs, closing the food production facilities, tight trade policies implemented and financial force in the food chain really affected the food industry stability [5].

---

[1] University of Malaysia Sabah, chot@ums.edu.my

This situation made people struggle to work harder to sustain their life and of course, want to reduce the losses of their resources especially raw material agriculture base that normally sells as the fresh form in nature. Most of the groups affected by this situation directly go to the community including farmers, fishermen, and other main raw materials producers which caused in huge loss of their income [6]. A suitable approach must be applied to solve this problem by transforming their agricultural sources into something more stable and producing better quality products to reduce losses.

Food Industry Development

There are significant changes in food processing in upon decade when traditional food production focused on family needs causing most mothers to be full-time housewives who allowed them to prepare their food. Besides that, all raw materials are easily found and surrounded maintaining freshness, and safe [7]. But with life changes, both husband and wife now work together to improve life quality effects on time for their food preparation and prefer to purchase food from outside. Table 1 showed the comparison between the traditional and modern food industries where modernization maximizes their food production with good quality, attractiveness, longer shelf life, and handles properly. Towards the end, their effort can be translated into sustain and profitable food industry and more over become their main income. Figure 1 showed the comparison of bahulu or traditional cake produced traditionally and modern approach.

Nowadays, the potential of agriculture by-products shows serious intention due to previous studies indicating that their content is high in nutrients and can be the potential as ingredients to develop value-added food products. Most of the agricultural products consist of 20-40% flesh referred to as the commercial part used for food production remaining 60-80% included peel, rags, seeds, etc. categorized as by-products [8]. These by-products normally turned become animal feed or allowed to be degradable as organic fertilizer that developed a bad smell to the environment through fermentation. A recent study by [9].

Traditional	Modern
Production in small quantity / family requirement	Production more for selling and profit oriented
Preparation more difficult to maintain the uniqueness with traditional characteristics	Preparation simplfied with adaption in ingredients and traditional menthod
use fresh and original form of raw materials and used in small quantity	Matarials variefy with suitable replacer and can be prepared in big quantity. Ingredients can be modified physically and chemically based on quanity required.
Production based on experienced where make difficulty because really depending on individual expectize with not standard ingredients mesurement	Production turn to simplfy with standard operation procedure (SOP) in ingredient quantity and propessing steps. In the other word, anybody can produced the similar quality of product when they followed the SOP prepared.
Usage of traditional utensils and apparatus needed suc as char coal, coconut coir etc.	Usage of modern apparatus with easily adjustable system such as oven, cabinet dryer etc.
Production cost in general consider high with involvement in time consume, energy and overall cost.	Overall production cost per product unit consider more cheaper and effective.

Figure 1. Comparison of Traditional and Modern Food Industry

Figure 2. Production of bahulu (traditional cake) in Traditional (A) and Modern (B) practices based on technology, production capacity, packaging, and marketing strategy.
(Source: A -
https://www.bharian.com.my/rencana/sastera/2019/06/571256/pro ses-rumit-teratur-rahsia-keenakan-kuih-tradisional; Source B -
https://www.bharian.com.my/bhplus-old/2016/08/182926/baulu-panas-tradisional-sekinchan)

Successfully developed an analogue patty from jack fruit, especially from peel and seed parts that are suitable for vegetarians and for those who attach importance to health because the product is analyzed with no saturated fats and is high in dietary fibre that suitable for those with cholesterol and heart problems. Furthermore, jackfruit seeds and their peel are also used in noodle production which

is more healthy and nutritious because it contains high in resistant starch [10].

Potential and Challenges in Food Industry

The food industry can be demonstrated by several production industries' linkage and complementing each other. This industry involved plantation, food production, food processing, preservation, packaging, distribution, retail, and catering [11]. In general, it can be classified into three basic components which are the raw material source, food development and processing, and marketing and promotion.

The basic requirement in the selection of suitable raw materials needs to be considered based on their stability and as we know most of our common raw materials are fruits and vegetables that are perishable and need to be proper handling procedures. The distance of raw materials to the processing plant becomes a serious indicator to maintain the raw material quality, especially for functional food production [12]. The policy is needed to transform the original raw materials form into sustainable and more stable through technology approaches such as drying, freezing, etc. to prolong its shelf life and be easily managed. Sun drying technique was practiced a long time ago but due to some problems several drying modern techniques have already been developed such as oven, cabinet, vacuum, spray, and freeze-drying methods [13]. In drying, technology development also indicated that the most important factor is either continuous process system. A fluidized bed dryer continuous drying system was most preferred with the advantages of low production cost, ease of installation and handled, and effectiveness as compared to sun drying [14]. Modification of fresh raw materials into powder under controlled conditions to ensure materials can be stored for up to 12 months [15].

Succeed business depends on management teams involving top management, financial, processing and marketing department. In detail, the marketing aspect involved transportation, storage, and marketing of products delivered to consumers with excellent linkages [3]. The Company must also have its own short and long-term planning to expand its business. Several approaches can be taken such as identifying potential business partners, improving facilities, and applying certain certifications such as MeSTI, halal, GMP, and HACCP for recognition and to increase the confidence levels of clients.

Potential of Food Industry in Pendemic Covid-19 Era

The Food industry is one of the most businesses due to the human need for food to sustain their life. Food business potential is also based on opportunity under the supply and demand concept. Increasing demand will create opportunity and will be aligned with new supply prospects involving knowledge level, availability of raw materials, production capacity and demand, increase in functional food demand, and better infrastructure, especially in remote areas. Parallel to the existence of the covid-19 epidemic, this also provides a new shift in consumer demand for more nutritious food with a digital marketing system to minimize physical encounters. All these factors make the food industry constantly growing and have high sustainability to continue developing. However, it is necessary to think carefully about whether the production of the food meets the overall taste of the consumer so that the product can be competitive

Challenges in Food Industry

The main challenge in any business including the food industry is the satisfaction rate of our customers. Food businesses need to understand customer behavior and the process that determines the customer's decision to buy the company's product. Customer characteristics include marketing stimulation and other stimulation. Market stimulation includes product uniqueness, competitive product prices, promotions, and location. While other stimulations that are also involved include economic, political, social, and technology determining the purchasing power of customers, stable political level and social relations among the community, and the willingness to change the existing technology to a more modern one [3].

Responsibilities and desires of customers place great emphasis on product choice, product brand, retail market choice, middleman choice, and also the time, amount, and frequency of purchases. All these factors greatly influence the customer's decision-making process to buy and use the food product. Therefore, a company needs to think about how to place a product in the market by taking into account the quality of the product, the uniqueness of the product, the appropriate price, and in an additional good promotion. Factors of stability and purchasing power of target customers also need to be taken into account because all these factors will determine the success of the company's products in the market.

Special Approach to Food Businesses Affected By the Covid-19 Pandemic

Food entrepreneurs in the community have been working in the small-scale industry for a long time to fill their spare time. As we all know, this group has a deep sense of shame, possibly due to a lack of exposure to the outside world where they are prejudiced and difficult to accept the changes given by the outside society. A specific approach is necessary to convince the community by trying to bridge the gap between them and the agents of change by trying to live with them, use their intermediate language, etc. The community is also more interested in something real with examples that can be seen than just theories or stories, change agents need to provide practical guidance. The technology introduction phase that is delivered with participation among them provides an overview of the success of the given approach. The introduction phase of this technology transfer is based on the initiative of the community itself such as tomato sauce and paste processing in Kundasang or involving government agencies that have identified target communities with potential products to be developed such as pineapple vinegar production in Tamparuli, Ginger-based food product processing in Tambunan and Chili-based products in Kota Marudu as in Figure 2.

The next phase is the selection of community members who show an interest in developing a product in a modern way through the commitment and earnestness they show throughout their participation in the activities carried out. Next, the selected members will be given a more specific advanced course covering explanations and guidance from agricultural experts, food technology, and marketing experts. Finally, a continuous monitoring process is carried out to ensure their efforts and determination to succeed in the management of the food business they venture into. Related skills courses and activities are also recommended to be followed to strengthen knowledge and business.

Figure 3: Food Processing Technology Transfer Activities During the Covid-19 Pandemic Season in Sabah. A) Tomato-based products in Kundasang; B), Pineapple vinegar production in Tamparuli; C) Ginger-based products in Tambunan; and D) Chili-based products in Kota Marudu.

A successful business needs a visionary individual or group of individuals who see the opportunity as something very valuable and turn the opportunity into a challenge to succeed. Opportunities to increase business capabilities grow through increased production capacity or networking with partners to meet demand. The community needs to have good financial management and accountability. There is a tendency for a successful business to start with credit because they will be more creative to pay off the loan. The choice of business location also plays a role where it is best to choose a location far from the residence so that they can focus more and avoid the distraction of household activities. All these factors need to be taken into account in addition to doing a SWOT analysis, to ensure that the chosen business can be competitive.

Conclusion

The food industry is a business that has the potential to be pursued with several factors that need to be emphasized to ensure that the business is competitive and has sustainability. The right marketing strategy along with the uniqueness of the product needs to be highlighted especially in terms of nutrition and user-friendliness, besides the factors of availability of raw materials, simple and readily available technology, reasonable and affordable prices in addition to good product durability need to be taken into account.

References

[1]   S. Aday, and M. S. Aday, "Impact of Covid-19 on the Food Supply Chain," *Food Quality and Safety.* Oxford University Press, vol.4, pp.167-180, 2020.

[2]   G.B.P. Recordati, "The Food Industry: History, Evaluation, and Current Trends," 2015. https://tesi.luiss.it/15698/177941.pdf

[3]   Anon. "All Food Business; Panera Bread and the Low-Cost Business Model," *allfoodbusiness.com*.: 2013. http://allfoodbusiness.com/articles/panerabread-and-the-low-cost-business-model/

[4]   I. M. Balan, A. C. Popescu, T. Iancu, and G. Popescu, "Food safety versus food security in a world of famine," *Journal of Advanced Research in Social Sciences and Humanities*, vol. 5 (1), pp. 20-30, 2020.

[5]   L. D. Montenegro, and M. N. Young, "Operational Challenges in the Food Industry and Supply Chain during the COVID-19 Pandemic: A Literature Review," *7th International Conference on Frontiers of Industrial Engineering*, pp.1-5, 2020.

[6]   J. Van Der Vorst, "Effective food supply chains; generating, modelling and evaluating supply chain scenarios," 2000. (4) (PDF) Effective food supply chains; generating, modelling and evaluating supply chain scenarios (researchgate.net)

[7]   Mohd Shazali Md. Sharif, Norazmir Md Nor, Salehuddin Mohd Zahari, and Mohammad Halim Jeinie. "The Malay Traditional Food Preparation," *Asian Journal of Quality of Life,* Pp. 39-47, 2017.

[8]   R. Egbert, and C. Borders, "Achieving success with meat analogs," *Food Technology.* Vol. 60(1), pp. 28-34, 2006

[9]   M. A. Hamid, F. L. C. Tsia, A. A. B. Okit, C. W. Xin, H. H. Cien, L. S. Harn, P. N. Patrick, S. Samirin, W. A. A. W. Azizi, A. Irfanian, and C. F. Yee, "The Application of Jackfruit By-Product on Development of Meat Analogue Patty," *IOP Conf. Series: Earth and Environmental Science 575*, 2020. doi:10.1088/1755-1315/575/1/012001

[10]   Mansoor Abdul Hamid, Mariam Abdul Latif, Hasmadi Mamat, Tan Seo Lay Amelia, Ng Hui Kuen, "The Effect of Mango Seed Composite Flour on the Quality of Instant Noodles," *The 2nd. International Conference on Sustainable Global Agriculture and Food.* Semarang, Indonesia. 9-10 August 2016.

[11]   M. N. O. Sodiku, M. M. Sarhan, and J. A. Tolulope, "Food Industry: An Introduction," *International Journal of Trend in*

Scientific Research and Development (IJTSRD). Vol. 3(4), pp. 128-130, 2020.

[12]   M. J. Sadler, and M. Saltmarsh, "Functional Foods: The Consumer, the Products and the Evidence," *Business.* 1998.

[13]   V. R. Sagar, and P. Suresh Kumar, "Recent Advances in Drying and Dehydration of Fruits and Vegetables: A Review," *J. Food Sci Technol.* Vol. 47(1), pp. 15-26, 2010.

[14]   K. J. Chua, and S.K. Chou, "Low-cost drying methods for developing countries," *Trends in Food Science & Technology, vol.* 14, pp. 519–528, 2003.

[15]   C. A. Batt, and M. Lou Tortorello, "Dried Foods," *Encyclopedia of Food Microbiology.* 2nd. Edi. pp. 574-576, 2014.

Project-Based Learning during the COVID-19 Pandemic towards the Learning Outcomes of Nutrition Science of Students of Biology Teacher Candidates

Mia Nurkanti[1], Fitri Aryanti[2]

Introduction

Education, according to the Law of the Republic of Indonesia Number 20 of 2003, is conscious and planned efforts to create learning atmospheres and learning processes so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation, and state. Spring [20] stated that education is fundamental and is the key to overcoming challenges of the future and it is the responsibility of the government to ensure that every child can receive an education so that they can live a meaningful life.

During the COVID-19 pandemic, the pattern of education changes, namely distance education or online education by utilizing the internet network. This situation encourages people to use digital technology. World development these days has entered Industry 4.0. Khasanah & Herlina [12] stated that Industry 4.0 has become the basis of life so it is necessary to prepare quality graduates who are able to compete globally--, and master technological developments. In line with Salmon's research [18] on Industry 4.0, it is .necessary to prepare a generation that is ready to face challenges in the working world by using the knowledge and skills they have.

The learning model of Project Based Learning (PjBL) is a project-based learning model characterized by a design process in the form of sketches or drawings. his project in Project Based Learning (PjBL) contains complex tasks based on questions and problems that are very challenging and require students to work through a series of stages of the scientific method [24] Project-based learning in education is not a new learning model, because this learning model was first introduced by John Dewey in 1970 and became popular in the 20th century.

According to Hartono & Asiyah [9], PjBL learning is a learning model that involves a project in the learning process. Projects that students work on can be in the form of individual or group projects and carried out within a certain period of time by collaborating, and producing a product, the results of which will then be displayed and

presented. Project implementation is carried out collaboratively and innovatively, uniquely, which focuses on solving the problems studied.

The model activities of project-based learning will be carried out through project assignments to find many alternative problem-solving solutions [6]. The characteristics of project-based learning are the learning focus lies on the core concepts of a discipline, involving students in the process of investigating problem-solving and other meaningful tasks, and giving students the opportunity to build their own knowledge in producing a product [1]. The stages of the PjBL model according to Doppelt [6] are:

A. The first stage is to design purposes. At this stage, students need to set the purposes of the design and these purposes must be in accordance with the problem definition.
B. The second stage is determining problems. Students determine the field of problem investigation. Based on the definition of the problem and the purposes from the first step, students must study and analyze the existing system, which is similar to what is developed.
C. The third stage is proposing solutions (solution alternatives). This stage, allows students to create various possibilities or creative ideas that have never been tried before.
D. The fourth stage is choosing solutions (choosing the preferred solution). To choose one of the alternative solutions made, the choice is made by considering ideas documented in the third stage. To decide on one of several alternatives made, there must be rubricked criteria in choosing the alternatives.
E. The fifth stage is carrying out activities (operation steps), planning lessons for implementing the chosen solution, for example, schedules, availability of materials, components, and tools, and making prototypes.
F. The sixth stage is evaluation, the evaluation stage occurs at the end of the activation process. The goal is to reflect on activities.

Slamet in Prihatini [15] explained that learning is an intelligent human activity, knowledge, attitudes, and skills will be formed, modified, and developed through learning processes. Learning is a change in behavior in individuals as a result of an experience. Therefore, a person is said to be learning if there is a

process of activity resulting in a change in behavior. This change in behavior is accompanied by efforts-, because without efforts it cannot be said to be learning.

Learning outcomes are abilities possessed by students after receiving their learning experiences. Learning outcomes can be seen through evaluation activities that aim to obtain evidence data that will show the level of student ability in achieving learning objectives. Learning outcomes according to Sudjana in Nurhayati [15] are the abilities students have after receiving their learning experiences.

Discussion

At the stage of designing goals, students generally have been innovative in designing an activity, starting with exploring or investigating and connecting what is known and what needs to be learned. Learning with PjBL can lead students to build their understanding of the topics to be discussed and they are t actively involved in the project implementation [3]. The implementation of PjBL emphasizes students to learn contextually through complex activities such as giving students the freedom to explore in planning learning activities, carrying out collaborative projects, and eventually generating a product [11]. In addition, PjBL can provide opportunities for students to explore contents (materials) using various means that are meaningful to themselves and conduct collaborative experiments so that it can train students to think at higher levels, and can train groups of students to work together in solving practical problems and presenting the solutions based on their thinking so that it can encourage intellectual and social development in creating effective learning processes and skills needed in the working world [5], [17], [7]. This stage requires students to think about developing a guiding question. Finding research problems is not easy. It requires a prior understanding of what research is and what a problem in a study means. According to Insyasiska et al. [10] PjBL can train students to think critically about contextual problems related to the material through the chosen topic so that it can improve students' cognitive abilities starting from analyzing, synthesizing, evaluating, and creating.

At this stage, students learn to propose solutions to the topics and projects they are working on. According to Chard in Insyasiska et al. [10], students are given to explore themselves in proposing and choosing solutions through project learning, and students can be motivated in learning so that creativity and critical thinking of students will emerge from the surrounding environment. Lee in Saenab et al., [17]. collaboration is a social interaction and a specific

type of learning process in which group members can be active and constructive in solving problems. Even though students have found and determined the research problem, another thing that must be considered in carrying out research is whether the problem is worthy of research. Therefore, proposing a solution must be based on considerations of cost, time, and conditions in the field, as well as choosing a solution to the problem encountered must be right. According to Wahyu (2018), in learning, students are encouraged to find themselves and transform complex information, to check new information with existing ones in their memories, and to be able to develop and apply them in their environments.

At the stage of carrying out the activities, it can be passed well, it can be seen from the results reported through *e-learning* that are generally quite complete. According to Wena in Wahyu (2018), PjBL emphasizes contextual learning through complex activities and involves students in problem-solving investigations and other meaningful task activities, as well as provides opportunities to construct students' own knowledge to produce real products, so that project-based learning can provide more interesting and meaningful learning experiences for students. At the evaluation stage, the students carried it out well. The students reflect in groups on the activities that have been carried out to improve performance during the learning process.

Based on Figure 2, the Implementation of *Project Based Learning* (PjBL) involves students in their learning processes to complete a certain project. The implementation of learning is carried out in groups so that a process of interaction between students can be established and they can exchange information [2]. Togetherness in groups is proven by the upload of research group reports on project-based learning stating that students were persistent and tried to complete the project well. Wahyu (2018) describes some of the advantages of project-based learning, namely, it can increase students' learning motivations, and students can develop and practice communication skills as the learning is carried out in the form of groups.

According to Roshelle and Teasley in Saenab et al., [17] collaboration skills involving students highly determine project success, because through collaboration they are able to mutually agree and respect different opinions to find solutions and achieve the main objectives of project implementation. This is in line with the study of Da Fonte et al., [4] that an important element of collaboration is building relationships and getting to know colleagues.

Project-based learning can be a learning strategy that can increase activeness and learning outcomes [21]. Students' activeness can be seen from their involvement in project implementation, participation in class discussion activities, and also whether students can apply learning concepts to the projects they are working on [8]. PjBL can provide valuable experiences for students and make them better than before [14]. PjBL learning can challenge students to actively engage with information and resources to solve problems using critical thinking in generating and creating knowledge products [19].

Conclusion

Based on the results of the study, it can be concluded that Project Based Learning (PjBL) makes students active in learning and can collaborate by producing a product based on the theme determined by the group. In addition, PjBL learning can improve students' learning outcomes as seen in the N-gain result of 0.52 which indicates an increase in the medium category.

References

[1]   M. E. Arce, J. L. Míguez-Tabarés, E. Granada, C. Míguez, & A. Cacabelos, Project-Based Learning: Application to A Research Master Subject of Thermal Engineering, *Journal of Technology and Science Education (JOTSE), 3*(3), 132-138. 2013. http://dx.doi.org/10.3926/jotse.81

[2]   F. Aryanti, & L. Suhaerah, *Efektivitas Penggunaan Media Audio Visual Untuk Meningkatkan Hasil Belajar Mahasiswa Pada Mata Kuliah Struktur Hewan,* 119–125. 2020.

[3]   M. E. Beier, M. H. Kim, A. Saterbak, Leautaud, V., Bishnoi, S., & J. M. Gilberto, The effect of authentic project-based learning on attitudes and career aspirations in STEM. *Journal of Research in Science Teaching*, *56*(1), 3–23. 2019. https://doi.org/10.1002/tea.21465

[4]   M. A. Da Fonte, & S. M. Barton-Arwood, Collaboration of General and Special Education Teachers: Perspectives and Strategies. *Intervention in School and Clinic*, *53*(2), 99–106. 2017. https://doi.org/10.1177/1053451217693370

[5]   F. Daniel, (2017). Kemampuan Berpikir Kritis Siswa Pada Implementasi Project Based Learning (PJBL) Berpendekatan Saintifik. *JPMI (Jurnal Pendidikan Matematika Indonesia)*, *1*(1), 2017. https://doi.org/10.26737/jpmi.v1i1.76

[6]   Y. Doppelt, Implementation and Assessment of Project Based Learning in a Flexible Environment, *International Journal of Technology and Design Education*, *13*, 255–272. 2003.

[7]   E. H. Fini, F. Awadallah, M. M. Parast, & T. Abu-Lebdeh, The Impact of Project-Based Learning on Improving Student Learning Outcomes of Sustainability Concepts In Transportation Engineering Courses. *European Journal of Engineering Education*, *43*(3), 473–488. 2018. https://doi.org/10.1080/03043797.2017.1393045

[8]   P. Guo, N. Saab, L. S. Post, & W. Admiraal, A Review Of Project-Based Learning in Higher Education: Student Outcomes and Measures. *International Journal of Educational Research*, *102*(November 2019), 101586. 2019. https://doi.org/10.1016/j.ijer.2020.101586

[9]   D. P. Hartono, & S. Asiyah, PjBL untuk Meningkatkan Kreativitas Mahasiswa: Sebuah Kajian Deskriptif tentang Peran Model Pembelajaran PjBL dalam Meningkatkan Kreativitas Mahasiswa. *Jurnal Dosen Universitas PGRI Palembang*, *2*(1), 1–11. 2018. https://jurnal.univpgri-palembang.ac.id/index.php/prosiding/index.

[10]   D. Insyasiska, S. Zubaidah, H. Susilo, Pengaruh Project Based Learning Terhadap Motivasi Belajar, Kreativitas, Kemampuan Berpikir Kritis, dan Kemampuan Kognitif Siswa Pada Pembelajaran Biologi. *Jurnal Pendidikan Biologi: 7(1)*, 9-21. 2015.

[11]   F. Jauhariyyah, H. Suwono, & Ibrohim. Science, Technology, Engineering and Mathematics Project Based Learning (STEM-PjBL) pada Pembelajaran Sains. *Pros. Seminar Pend. IPA Pascasarjana UM*, Vol. 2, ISBN: 978-602-9286-22-9 (pp. 432-436). Malang: Universitas Negeri Malang, 2017.

[12]   U. Khasanah, & Herlina, Membangun Karakter Siswa Melalui Literasi Digital Dalam Menghadapi Pendidikan Abad 21 (Revolusi Industri 4.0), *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang* (pp. 999-1015), Palembang: Universitas PGRI. 2019.

[13]   J. S. Krajcik, & C. M. Czerniak, *Teaching Science in Elementary and Middle School: A Project-Based Learning Approach* (1st ed.). Routledge. 2018. https://doi.org/10.4324/9781315205014

[14]   A. Panwar, A. Chauhan, & K. Arya, Analyzing learning outcomes for a massive online competition through a project-based learning engagement. *IEEE Global Engineering*

Education Conference, EDUCON, 2020-April, 1246–1251. 2020. https://doi.org/10.1109/EDUCON45650.2020.9125379

[15]   E. Prihatini, Pengaruh Metode Pembelajaran dan Minat Belajar Terhadap Hasil Belajar IPA. *Jurnal Formatif-Jurnal Ilmiah Pendidikan MIPA: 7*(2), 171-179. 2017.

[16]   Admin, 2014 December 17, *Model Project-Based Learning. Tersedia*   [Online],   Eurekapendidikan.com, https://eurekapendidikan.com/model-project-based-learning-landasan/

[17]   S. Saenab, S. R. Yunus, & H. Husain,(2019). Pengaruh Penggunaan Model Project Based Learning Terhadap Keterampilan Kolaborasi Mahasiswa Pendidikan IPA. *Biosel: Biology Science and Education*, *8*(1), 29. https://doi.org/10.33477/bs.v8i1.844

[18]   G. Salmon, May the Fourth Be with You: Creating Education 4.0, *Journal of Learning for Development, 6(2)*, 95-115. 2019

[19]   M. S. Sari, Sunarmi, E. S. Sulasmi, and K. Mawaddah, Formative Assessment In Project-Based Learning: Supporting Alternative on the Learning Outcome of Biology Students in University, *AIP Conf. Proc.,* vol. 2120, 2019, doi: 10.1063/1.5115709.

[20]   J. Spring, *American Education* (20th ed.). Routledge. 2021. https://doi.org/10.4324/9781003093251

[21]   F. Sukmawati, P. Setyosari, S. Sulton, & P.Purnomo, The Effect of Project-based Collaborative Learning and Social Skills on Learning Outcomes in Biology Learning. *Journal for the Education of Gifted Young Scientists, 7*, 1325-1344. 2019.

[22]   Sugiyono. *Metode Penelitian Pendidikan Pendekatan Kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta. 2010

[23]   Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional. 2003

[24]   M. Wena, (2010). *Strategi Pembelajaran Inovatif Kontemporer (Suatu Tinjauan Konseptual Operasional)*. Jakarta: Bumi Aksara. 2010.

NEED FOR ACHIEVEMENT (*N - Ach*) & CREATIVE ECONOMIC PERFORMANCE OF COASTAL COMMUNITIES OF BENGKULU CITY

Mochamad Ridwan[1]

INTRODUCTION

Most of the people of Bengkulu city live in the coastal area. These coastal communities generally work as fishermen. The results of field observations show that in almost all of the coastal communities in Bengkulu city that work as fishermen, most of their fish catches are still managed in the traditional way, such as being sold directly to the market and sold in the form of dried fish/salted fish. Besides being sold in the form of dried fish/salted fish, very little of the fish caught is processed into processed food ingredients made from sea fish. This phenomenon is also reinforced by the increasingly widespread beach tourism activities which are integrated with fish trading activities, both in the form of wet fish and dried fish, whose management has not been well organized. The next impact that occurs is the increasingly squalid conditions of the environment around the beach. The absence of a balance in structuring creative economic and environmental activities has caused quite serious environmental and economic problems and an appropriate solution must be found. [1]

The empirical conditions of the creative economy of coastal communities can be shown through observing the external conditions of related agribusiness variables, such as the growing development of the creative economy in the world of coastal/marine tourism, culinary tours that offer a variety of foods made from marine fish, and others. So it can be concluded that one form of creative economic activity in coastal communities that is considered very prospective at this time is the processed food industry made from marine/sea fish. In reality, the coastal area of the city of Bengkulu until now has not been able to develop as expected. Allegedly the main causative factor is the low need or motivation for achievement (need for achievement/*N-Ach*) of

---

[1] Bengkulu University Faculty of Economics and Business

the coastal communities themselves in innovating to transform the traditional economy into a creative economy in the form of a marine fish-based food processing industry.

Theoretically, creative economic activity is related to the market economy (microeconomics) in which the entrepreneurial aspect that is inherent in people's behavior (in this context coastal communities) is closely related to the producer's behavior and consumer's behavior. The producer's behavior is closely related to the behavior of the two coastal community groups themselves, which consist of fishing communities and non-fishing communities. The level of success of creative economic activities carried out by coastal communities is largely determined by the strength of their need or motivation for achievement/*N-Ach*. As entrepreneurs, coastal communities are required to be sensitive or responsive to developments in the external world, namely consumers who have various consumer behavior if they want to achieve maximum levels of profit, especially in the creative economy business world. [2]

Performance in the form of the ability to obtain high and maximum profits (profitability) of coastal communities and the ability to compete (competitiveness) with the outside world/external factors is highly dependent on the fighting power of the coastal communities themselves, namely business ability and strong work motivation. Besides that, it is also very dependent on the quality of the role of other stakeholders, including the role of the government which is very strategic and important, namely in the form of political will and role as a decision maker. In fact, the two roles of the government are very decisive for the development of the creative economy of coastal communities, considering that coastal communities are in a disadvantageous position and mostly consist of fishing communities with the status of small fishermen or traditional fishermen.

DISCUSSION
Coastal Communities & Creative Economy Businesses Based on Food Made from Marine Fish

Coastal communities are very close to their marine fishing business compared to other types of businesses. This is quite reasonable because most coastal communities work as fishermen.

However, it is quite unfortunate that the fishing business which is an upstream business is not much followed by downstream businesses which actually provide greater added value for coastal communities and in the future perspective are very prospective. The downstream business referred to here is a business in the creative economy sector. There are many creative economic efforts that can be carried out by coastal communities, such as processed food made from marine fish (can be marketed online or offline, such as fish floss, dried fish jerky, marine fish crackers/chips, and others), sea/beach/maritime/mangrove tourist destination business, and others. In relation to creative economic businesses based on processed food made from marine fish, their success is largely determined by four determining factors, namely the fisheries' natural resources factor, the human resource factor, the capital resources factor, and entrepreneurship resource factors (entrepreneurship resources). Two other factors that also determine are social capital and the government's role.

Marine fishery natural resource is one of the four factors that determine the success of creative economic activities based on processed food made from marine fish which is quite important and strategic. This is because the existence of reserve (stock) of marine natural resources will determine the adequacy of raw materials for the production of processed food made from marine fish. If the condition of the reserve (stock) is still excessive (under fishing), it will be able to support the continuity of production. Conversely, if the reserves (stock) is already at a critical point (overfishing), then it will become an obstacle to the continuity of production. In other words, the progress of a creative economic business based on processed food made from marine fish is highly dependent or very much determined by the existence of marine fisheries' natural resource reserves.

The existence of reserves (stock) of marine fisheries' natural resources is largely determined by the behavior of the fishing communities themselves, whether they behave conservatively or they behave depletive towards the ownership of these marine fisheries' natural resources. Besides that, it is also strengthened by the nature of marine fisheries' natural resources as natural resources that are "common resources". In connection with the existence of marine

fisheries' natural resource reserves, there are two conditions that must be considered, namely (1) marine fisheries' natural resources must be exploited in a "conservative" manner, so that their existence remains "sustainable" or their sustainability can be maintained over time and (2) because marine fisheries' natural resources are common resources, a bigger government role is needed besides compliance from coastal communities with the principles of conservation of marine fisheries natural resources, with the aim of avoiding from critical conditions (overfishing) or conditions of destruction which are very detrimental to the coastal community itself.

The human resource factor and the capital resource factor are two of the four factors that determine the success of creative economy businesses in coastal communities which are very important and strategic. In terms of terminology, the human resource factor and the capital resource factor are two resources or forces that are able to determine good or bad, progress and failure, and the success or failure of a creative economy business. Many empirical research results corroborate the research findings, which show that the quality of human resources and capital capabilities are very influential in improving business performance. Solow presents his growth theory that business performance and productivity can be increased through technological improvements (technological factors implicitly enter into the quality factor of human resources) and increased capital/capital. [3]

The success of the creative economy business of coastal communities is largely determined by the factor of entrepreneurial resources. This entrepreneurial resource factor is very strategic in its position in determining the size of the business profits it gets. The very strategic position of the entrepreneurial resource factor is because of the four existing production factors, the entrepreneurial resource factor has the most important key role in determining the success of the development of business income through the accumulation of profits it earns from time to time. Therefore, by strengthening and empowering entrepreneurial abilities, it is hoped that in the long term perspective the creative economic ventures of coastal communities can develop rapidly. The ability to collect high and consistent profits (profitability) is closely related to three other resource factors,

namely the fisheries' natural resources factor, the human resource factor, and the capital resources factor. The better the interaction and synergy of the four resource factors, the greater the ability of entrepreneurial resource factors to collect profits. [4], [5], [6]

Building A High and Resilient Need for Achievement (*N - Ach*) of Coastal Communities

One dimension or indicator of entrepreneurial ability that is very important is the need/motivation for achievement (*N - Ach*). Business success is the success of the need or motivation for achievement (*N - Ach*) which must be continuously improved. These factors or indicators are very decisive in the process of development and growth of creative economic enterprises in coastal communities. The process of business development can run if there has been a strong need/motivation for achievement (*N - Ach*) in coastal communities. McClelland (an entrepreneurship expert) explained that the difference between developed countries and developing countries lies in the very high need/motivation for achievement (*N - Ach*) that developed countries have. McClelland's findings implicitly indicate that a high need for achievement (*N - Ach*) greatly influences economic progress (which can indirectly be reflected by the progress of the business world) in that country. [7]

The results of studies that have been carried out show that the performance of coastal communities from creative economic businesses based on marine fish-based foods is still low because they have not been able to significantly increase their need for achievement together with workability. Supported by Ibrahim's research results, it is shown that functionally business performance is a function of work motivation and workability. Mathematically, this causality relationship (functional relationship) can be arranged as follows: Performance = f (Work Motivation, Work Ability); meaning that the performance of a person's or community's business will increase if work motivation and workability are increased together. It was also explained that structurally these three factors (performance, work motivation, and workability) interact in a causal and structural relationship, where performance as the dependent variable is

significantly influenced by two independent variables simultaneously, namely work motivation and workability. [8]

There are three important aspects or stages that must be considered and complied with so that the performance of the creative economic business of coastal communities based on marine fish-based foods can be significantly increased, namely:

a) Because the relationship between performance, work motivation (achievement motivation), and workability is a causal relationship; then the method or way that can be done is to strengthen or empower in advance the quality of the needs/motivation for achievement and workability. The process of strengthening or empowering can be done formally or informally. Formally, strengthening/empowerment can be done through regular training; whereas informally, strengthening/empowerment can be done through counseling or coaching/guidance directly at the place of business or indirectly through communication through online media television, HP, and others.

b) Apart from strengthening or empowering processes, improvement efforts can be made through increasing other economic activities that can support the creative economy of coastal communities, such as building partnerships with souvenir/handcraft centers, destination information centers, travel agents, and others. The most appropriate (conceptually and empirically) process of strengthening and empowering the creative economy of coastal communities is carried out through a "Business Incubator". In general, there are three important stages in the process of strengthening and empowering through this business incubator, namely the identification of various problems faced, the analysis of solutions, and the implementation of reinforcement treatments. Several parties are directly involved in the strengthening process in this Business Incubator, including (1) coastal communities (as creative economy business actors), (2) related universities (as business experts), (3) the government agencies related parties (as

policymakers/budget providers), (4) successful economic business actors (as successful business experts), and (5) the banking world (as facilitators of marketing processes and capital assistance/loans). [9], [10]

c) The seriousness of the government (city and province) in its role as a stakeholder, most importantly in terms of political will and decision maker, occupies the most strategic position. Together with the government, the role of other related stakeholders such as the world of BANKING and BUMDs in the form of CSR is also quite strategic and has an important role. The results of field observations in the ecotourism area in Probolinggo Regency, East Java, show that there is integration between creative economy businesses in the form of an integrated restaurant and cafe with an ecotourism area which is quite large and has been growing rapidly. The results of an interview with one of the leaders of the PLTU - PJB Paiton as the supervisor and CSR funder, indicated that currently the turnover from the BOHAY BEACH Resto and Cafe, to be precise in Binor village, Paiton sub-district, Probolingo district, East Java has reached 500 million rupiahs per month. The success of this creative economy performance can be achieved thanks to a mutually beneficial collaboration between the PLTU - PJB Paiton as the supervisor and funder of CSR and BUMDES BINOR ENERGY as the manager of the BOHAY BEACH Resto and Cafe. [11]

The Solutive Empowerment Model in Lifting Creative Economy Businesses for Coastal Communities Based on Processed Foods Made from Marine Fish

The process of strengthening or empowering the creative economy of coastal communities is carried out through two stages, namely (1) Strengthening/Empowerment based on human resources (creative economy entrepreneurs in coastal communities) and (2) Strengthening/Empowerment based on creative economic businesses in coastal communities (processed food made from marine fish).

1) Strengthening/empowerment in the early stages is carried out based on human resources (creative economic entrepreneurs in

coastal communities), focusing on Needs/Motivation for Achievement (N-Ach). Graphically it can be seen in Figure 1.
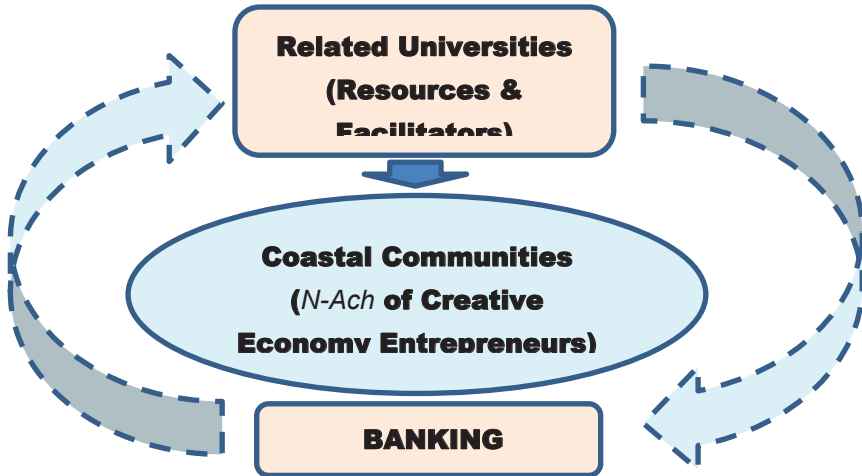

Figure 1. The Strengthening/Empowerment Entrepreneurship Process (Need forAchievement/*N-Ach*) Creative Economy Enterprises of Coastal Communities

Information:

Strengthening or empowering the field of creative economic business entrepreneurship based on processed food made from marine fish from coastal communities, played by related universities (as resource persons and facilitators). Empowerment is carried out together with partners (banking), with the intention of assisting in explaining the process of accessing capital from banking.

2) Strengthening/empowerment of the second stage is carried out in the creative economic business process of coastal communities based on processed food made from marine fish through the "Business Incubator". Graphically it can be seen in Figure 2.
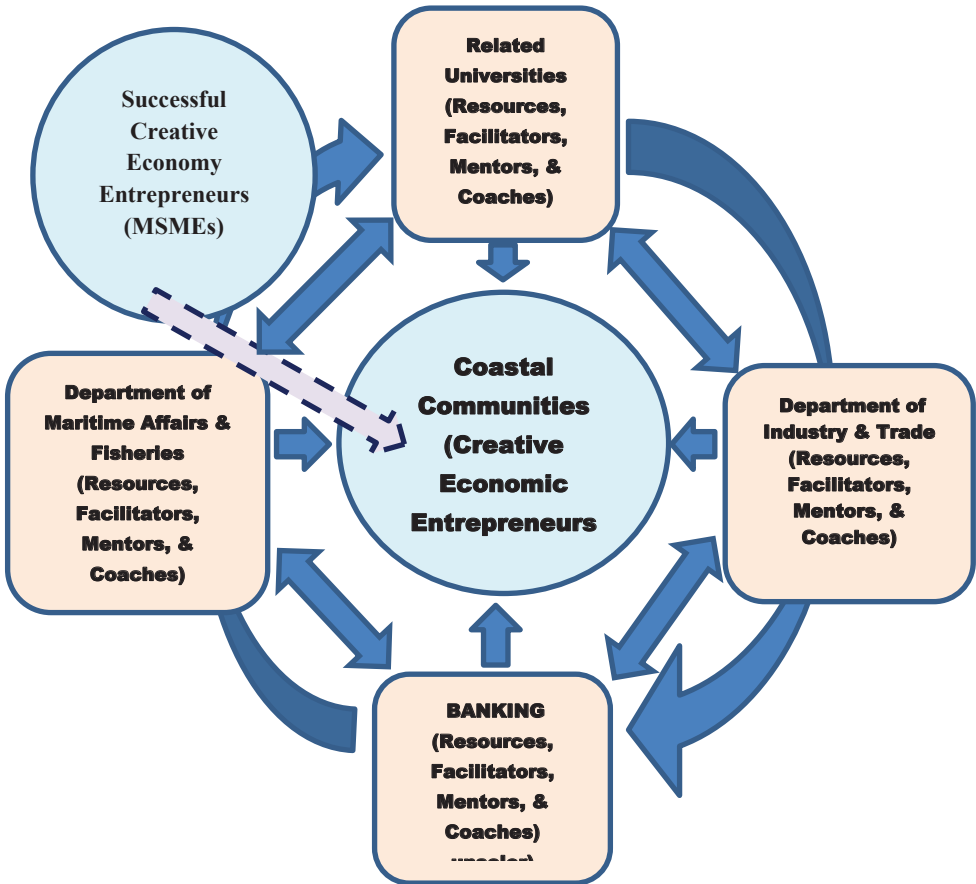
Figure 1. The Process of Strengthening/Empowerment for Creative Economic Enterprises of Coastal Communities through Business Incubator

Information:
Strengthening or empowering creative economy businesses through "Business Incubators" from coastal communities, played by key stakeholders, namely (1) related universities, (2) industry and trade offices (city and provincial level), (3) marine and fisheries services (city and provincial level), and (4) BANKING. These four stakeholders all act as resource persons, facilitators, mentors, and coaches. In empowering through business

incubators, related universities work together with creative economy entrepreneurs who are successful in similar business fields, to help each other in the framework of building creative economy businesses which are expected to be more empowered and immune from time to time.

CONCLUSION

In the coastal community of Bengkulu City, where the majority of the population work as fishermen, it turns out that their marine fish catches are still managed traditionally (traded in markets and sold in the form of wet fish or dried salted fish). The results of the study show that the low quality of marine fish management methods that are caught is caused by low entrepreneurial skills, especially the low need for achievement (*N-Ach*) owned by coastal communities. This condition is shown by the fact that creative economic business activities based on processed food made from marine fish are still very small, even though this creative economy business can generate much greater economic added value (profit level). Through strengthening or empowering coastal communities from the aspect of human resources that are focused on strengthening the need for achievement (*N-Ach*) and strengthening creative economic businesses through "business incubators", it is hoped that creative economic business ventures for coastal communities based on marine fish-based foods can develop from time to time.

REFERENCES

[1]   J. M. Zayanie, A. Fitria, and R. Kamariah, "Bank Wakaf Mikro and Creative Economics in Pesantren Buntet," *Shirkah J. Econ. Bus.*, vol. 4, no. 2, 2019, doi: 10.22515/shirkah.v4i2.269.

[2]   A. Bawono, "Creative Economic Development of Pesantren," *Shirkah J. Econ. Bus.*, vol. 3, no. 1, 2019, doi: 10.22515/shirkah.v3i1.180.

[3]   E. U. Osiobe, "A Literature Review of Human Capital and Economic Growth," *Bus. Econ. Res.*, vol. 9, no. 4, 2019, doi: 10.5296/ber.v9i4.15624.

[4]   E. Y. Naminse, J. Zhuang, and F. Zhu, "The relation between entrepreneurship and rural poverty alleviation in China," *Manag. Decis.*, vol. 57, no. 9, 2019, doi: 10.1108/MD-11-2017-1153.

[5]   M. Forouzani and L. Mohammadzadeh, "Empowerment of the

members of rural women's cooperatives: The impact of icts in rural districts of Urmia county, Iran," *Asian Women*, vol. 34, no. 4, 2018, doi: 10.14431/aw.2018.12.34.4.77.

[6]   M. C. Sjioen, J. Pello, J. Eoh, L. M. Tamunu, and A. D. S. da Costa, "Policy Implementation of Fisheries Economic Empowerment and Economic Resilience in the Long-Term of Sustainable Development in Kupang City, Indonesia," *J. Manag. Sustain.*, vol. 10, no. 1, 2020, doi: 10.5539/jms.v10n1p15.

[7]   V. Q. Cao and T. T. T. Ngo, "Linking entrepreneurial intentions and mindset models: A comparative study of public and private universities in Vietnam," *Gadjah Mada Int. J. Bus.*, vol. 21, no. 2, 2019, doi: 10.22146/gamaijb.34753.

[8]   I. Ibrahim and M. A. Rahmat, "Pengaruh Motivasi dan Kemampuan Kerja Terhadap Kinerja Pegawai Pada Dinas Pariwisata Kabupaten Sigi," *JAMIN   J. Apl. Manaj. dan Inov. Bisnis*, vol. 3, no. 2, 2021, doi: 10.47201/jamin.v3i2.72.

[9]   M. Hayati and D. E. Wijayanti, "PERAN DAN MODEL INKUBATOR BISNIS TEKNOLOGI TERHADAP PENGEMBANGAN UMKM DI MADURA," *Agriekonomika*, vol. 8, no. 2, 2019, doi: 10.21107/agriekonomika.v8i2.6012.

[10]   M. Liu, Y. W. Wang, and C. Nolf, "Creative Chinese Countryside? Township-Village Enterprises as Incubators," *Built Herit.*, vol. 3, no. 4, 2019, doi: 10.1186/BF03545720.

[11]   J. Fazlagić and E. I. Szczepankiewicz, "The role of local governments in supporting creative industries-a conceptual model," *Sustain.*, vol. 12, no. 1, 2020, doi: 10.3390/SU12010438.

Tracking Disaster Mitigation Behavior Based on Local Wisdom in Menawan Village

Mochamad Widjanarko[2] , Mohammad Khasan[3], Dian Wismar'ein[4], Saiful Ni'am Muzakki[5]

Introduction

There are eleven peaks in Muria Mountain, namely *Puncak 29*, *Natasangin*, *Abiyoso*, *Candi Angin Kidul* and *Candi Angin Lo*r, *Gajahmungkur*, *Kelir*, *Palombo*, *Watupayon* or *Termulus*, *Argo Piloso,* and *Argo Jembangan*. They have the main function as a buffer for the ecosystem of plant and animal life, as well as providing clean water for the surrounding area, which includes the districts of Kudus, Pati, and Jepara.

Floods, hurricanes, and landslides have again worried all parties, occurring within less than a decade from mid-January to early February 2014 on the edge of the Muria forest, such as Rahtawu Village, Kudus Regency and Tempur Village, Jepara Regency and several villages in Pati Regency. The landslide in Kudus started from the forest edge village of Muria, in the villages of Soco, Ternadi, Colo, Menawan, and Rahtawu [8].

Menawan Village is located at an elevation of approximately 300 meters above sea level at the base of Mount Muria, surrounded by forests and hills so that the air in this village feels cool and refreshing. Menawan Village experienced a major disaster on January 22, 2014. According to Moh Solikin, the village head at that time, there were 880 residents in *Kambangan* Hamlet out of a total of 485 Families, and most of them were displaced. Residents were also advised to evacuate temporarily until conditions were completely safe from landslides, after the landslide that resulted in the death of 12 residents of Kambangan *Hamlet*.

[2,2,4] Faculty of Psychology, Muria Kudus University,
    m.widjanarko@umk.ac.id
  [3] Faculty of Economics and Business, Muria Kudus University

Local wisdom is a collective understanding and knowledge that influences decisions to resolve or overcome a problem in life. Wisdom in this case is an embodiment of understanding and knowledge that undergoes the process of developing a local community group or a community from the process and length of interaction in one system and a mutually beneficial relationship [2].

The research from Permana, Nasution, and Gunawijaya [4] mentions that local wisdom in disaster mitigation owned by the *Baduy* community is based on *pikukuh* (advice from elders) or customary provisions that become instructions and directions in thinking and acting. *Pikukuh* is the basis of wise traditional knowledge, including in preventing disasters.

Various examples of wisdom in the environmental conservation of local communities can also be found, for example in the *Kasepuhan* community (West Java), the *Siberut* community (West Sumatra), the *Kajang* community (South Sulawesi), and the *Dani* community (Papua). Generally, local people assume that the surrounding environment has and inhabits other than humans. Therefore, humans who live in the vicinity must respect and protect their places, such as forests, mountains, valleys, and water sources. Not even a few of these places are used as sacred places.

To answer the statement above, the questions posed in this research are "is there still local wisdom possessed by the people living in Menawan Village, Kudus Regency related to efforts to mitigate disaster? If it's lost, why? If so, what kind of behavior is it? and how is the community's adaptability in dealing with disasters?

The objective of this study is to analyze the behavior of local wisdom in the Menawan village society that lives on the edge of the Muria forest related to disaster mitigation. The findings contribute to psychological theory, especially the psychological impact of natural disasters related to the behavior of local wisdom, and initiate the development of disaster psychology studies regarding the psychological impact of natural disasters among scientists and psychology academics in Indonesia.

The main objectives and problems of the study are to obtain data on the behavior of local wisdom from the people living in Menawan Village, Kudus Regency related to disaster mitigation. The authors used a qualitative research method with a phenomenological approach.

Research informants were determined using the snowball technique, namely data mining by researchers through interviews with one informant to other informants who met predetermined characteristics. The characteristics of informants in this study are

individuals who were born and who have been living in the research location and are active in the community or the public figures and are aware of disasters that occur in their village.

The data collection methods used to reveal the problems in this study were interviews and observations. The interview technique in this research is a direct interview, where the researchers deal directly with the informant and asks several questions. Meanwhile, what is observed can be a description of the attitudes, responses, and behavior of research informants related to disaster mitigation based on local wisdom.

All data collected in this study were transcribed, then edited, and coded according to the type of data.

Findings
Informant 1_E

The informant explained that in Menawan Village there was a major disaster in 2014. The disaster hit one area of *Kambangan* Hamlet so all residents in that area evacuated and causing 12 deaths. Landslides occur after consecutive rains for eight days and eight nights with high intensity and never let up.

> As told by Informant E:
>> "In Kambangan, 2014", "It was extraordinary. Until all of the people in *Kambangan* were evacuated, there were 12 victims who died", "In 2014, huh. It rained for 8 days, and 8 nights without stopping. The intensity was high all the time. Never let up. Not drizzle. It's always heavy."

To reduce the occurrence of landslides, informants received a lot of information from volunteer friends throughout Kudus Regency. The information they got, such as the building shape of any house had the potential for landslides to occur. Another effort to prevent landslides is the arrangement of cliffs. Then the arrangement of the water channel from the cliff flows directly into the gutter. It aims to prevent the entry of water into the surface of the cliff soil which can trigger landslides.

> Informant E's story to researchers:
>> "Recently, these volunteer friends from Kudus have started to help a lot. We had lots

of sharing, that the building shape of a house like that would trigger landslides."
"That cliff, it has started to be laid out a lot. Oh yes, it turns out that a house that does not have gutters goes straight down, and does not drain properly, yes, it's a landslide. Many people have realized that. Then the water is not allowed to go anywhere. Water channels have been made leading to the sewers. In the past, it was still a mess."

Informants believe that Menawan Village can cause natural disasters. This is told by the elders with some advice. However, the informant based his belief that the sayings could be digested by common sense. Like advice related to disasters that can occur within a 6-year time cycle. It can occur because of the community's behavior in planting timber trees. The silk tree was chosen because of its six-year harvest period. When Silk trees were harvested, they would automatically cause baldness and could lead to landslides. In addition, in *Kambangan*, there is a rule that states that if you cut down a tree or a tree dies, a new tree must be planted immediately. Informants think that this is very good for nature conservation.

"Yes. I'm sure because it is logical." "Six-year cycle. That's logical, because of people's behavior. In the past, in the community here, the trees were planted, sir. When the trees are planted, Silk Tree. Say the harvest period is 6 years. After 6 years, it will be big, cut down, bald, and automatically landslide."
"For example, there is a belief that cutting one tree must be replaced. There is such a rule in *Kambangan*. It was a message from the elders." "If then the myth that cuts trees or dead trees must be replaced, that's logically true. For the balance of nature. Nature conservation. Yes, I believe".

In Menawan Village, there is a religious ritual intended for disaster mitigation efforts. The ritual is called *Talak Bala*. The implementation is carried out every 10 of *Muharram* but some people carry out the ritual every *Wage* Friday in the month of *Muharram*. The tradition of *Tolak Bala* is carried out in its origin of the *Kambangan*

area. As a condition, the goat that is slaughtered has special criteria. The goat must be black and has a white circle on its body. The people of *Kambangan* often refer to it as a *Kendhit* goat. However, this condition is not absolute. Goats that have this shape are difficult to find, so if you do not find a goat as required, you may use an ordinary goat.

> "The tradition of *Tolak Bala* now has two versions. In general, the Friday of *Wage* is in the month of *Syuro* or *Muharram*. Some others do it on the 10th." "If you want to do the tradition of *Tolak Bala* in the origin of *Kambangan*". "Yes, as a condition that the cut is a *Kendhit* goat, a goat whose belly is circular in white with a black head and legs." It is better. But if someone has difficulty finding *Kendhit* goat, it's okay to use the other goat."

Informant 2_R

Informants mentioned the disasters that occurred in Menawan Village, including in 2002 a landslide occurred. The scale of the disaster was extensive, causing many houses to be damaged. But not to the point of killing lives. Then the landslide disaster that occurred accompanied by flash floods occurred on January 22-23, 2014.

This is the story of Informant R:

> "The disaster in the *Kambangan* area, which I know about in 2002, was of a wide scale, but there were no fatalities. But it caused damage to a lot of the houses." "The landslide which was accompanied by flash floods occurred on January 23-24, 2014, and claimed lives. The landslide covered the river channel." "It rained for 10 days without stopping". "They were 10 houses damaged".

When a disaster occurs, residents worked together to fix closed waterways, so that water would not seep into the ground and cause landslides. Then the efforts made to reduce the occurrence of disasters include conditioning the land by forming terraces, draining streams, and observing if there was a threatening flow, it was immediately diverted to avoid a disaster.

Further explained by informant R to the researcher:

"During a disaster, we helped or organized, evacuated to rescue evacuations of survivors and victims. Also, we made divisions, for example, a division for searching food and a division for searching transportation".

"To avoid a disaster, the land was made terracing, then the flow of water could flow, we diverted the flow that could threaten the landslide ".

The local tradition that is carried out as a disaster mitigation effort is the tradition of *Tolak Bala* which is carried out every month of *Syuro* or *Muharram*.

"Yes, Tolak Bala, every month of Syuro".

Informant 3_A

The informant stated that the disaster that occurred in Menawan Village was a landslide in *Kambangan* Hamlet. The disaster occurred on the night of Wednesday, January 22, 2014, at midnight. This disaster claimed 12 lives who did not have time to save themselves.

What A said to the researchers:

"In Menawan landslides, especially in Hamlet of Kambangan". "It happened on the night of Wednesday, January 22, 2014". "The victim was 12 people at the time of the incident, right at midnight, around 12:30 am".

"Before the landslide, the intensity of the rain was extraordinary." "Approximately a week of continuous rain accompanied by blackouts 3 days before the incident."

Informants helped in the evacuation process carried out by the SAR team. Among the things that the informants did was participate in cooperation in cleaning up the former avalanches and looking for victims who were buried by the landslide.

"Working together to clean up, like that, continue to help the SAR team to find victims when the incident happened".

In the *Kambangan* Hamlet, there is a tradition of *Tolak Bala*. This tradition aims as a disaster mitigation effort through a tradition that is carried out from generation to generation. In its implementation, there is a ritual of slaughtering a *Kendhit* goat. The *Kendhit* goat has a characteristic black color with a white color that wraps around the goat's body like a belt. Residents of *Kambangan* often refer to this tradition as "the salvation of *Tolak Bala*". This tradition was attended by residents of *RW 5* which is located at the end of the village and also residents of *RW 6*. This tradition is carried out independently by the community to preserve the tradition.

Informant 4_S

The rainfall was very long, for 9 days and 9 nights, and the intensity was very heavy, on January 22, 2014. In the disaster, 12 people died, including several families. The house had 4 people; the others had two people. Those were riverside houses.

> *"The rain for 9 days 9 nights was very heavy intensity, landslide disaster January 22, 2014".* *"Yes, 12 people from several families died"*

The prevention method carried out by the residents of Menawan Village is by managing the water system. Water must be able to flow and must not stop at one point. By managing the flow of water, it can minimize water entering the ground which can cause landslides.

> *"Regarding prevention, we need to regulate the flow of water, do not let it stop, water must be able to flow, that is one of the methods. If you leave it, it will destroy anything. so, the water system has to be managed."*

In Menawan Village when a landslide will occur, there are already signs of a disaster. A sign of an impending landslide is the presence of water coming out of the ground. In addition, the water that comes out of this soil tends to be a bit cloudy in color and has an unusual smell. Menawan Village residents if they encounter something similar, will immediately notify other residents to be advised to immediately stay away from the area.

One of the anticipatory steps taken in disaster prevention is to look at the condition of the surrounding environment.

As told by Informant S:

> *"The tree after it grows big becomes a danger because the soil will be exposed, then water enters the gaps when it rains."*
> *"It's like bamboo trees are more dangerous when landslides, not only around their clumps but sometimes they steal other soil, yes, if the flash flood was due to landslides."*

Discussion

Based on the findings of interviews, it can be described in the following explanation. In the knowledge indicator, the four informants were aware of a landslide that occurred in Menawan Village on January 22, 2014. The landslide occurred after days of heavy rain. The disaster occurred in the middle of the night when the residents were resting. This resulted in 12 Menawan Village residents dead because they did not have time to save themselves.

When a disaster occurs, Menawan Village residents help work together with the SAR team. Efforts are being made to save the survivors and evacuate the bodies of the dead. In addition, cleaning the former mud from the landslide and conditioning the flow of water so that it does not clog. When water clogs it will easily cause flash floods. The efforts in preventing the occurrence of disasters is the arrangement of cliffs and waterways. Naryanto et al. [3] state the importance of structuring landslide-prone areas to achieve sustainable safe conditions in the future. The arrangements carried out are the management of water arrangements, drainage channels, and the strengthening of cliffs.

Furthermore, on the indicator of confidence, informant I_E believes that a disaster can occur in Menawan Village. His belief is motivated by the sayings of the elders. However, I_E's informant will believe that these quotes can be accepted by common sense or logic. As with the rules, if there are dead trees or when you want to cut trees, you are required to plant new trees. In line with Fatiatun et al. [1] that mitigation efforts that can be done to prevent landslides are through reforestation or replanting trees that can hold the soil. Informant 1_E accepted the advice from elders because it has a good impact on environmental balance. So, the informant hopes that such advice can be preserved and maintained.

In the third indicator, understanding and insight, informant 4_S mentioned several signs of a landslide disaster. Among them is the emergence of water from the ground as a source that has an unusual smell. When there are residents who know the appearance of the sign,

they will immediately inform other residents to immediately stay away from the place where the sign appears, thereby minimizing the victims of landslides. Understanding the signs of impending disaster is very helpful in minimizing the impact caused. Like the people in *Kenagarian Sungai Landia*, District IV *Koto*, *Agam* Regency, they use signs such as heavy rain and when the water that falls on the streets has changed the color of the ground, the *Sungai Landia* community will warn of a potential landslide disaster [7].

The indicators of traditions or habits of the Menawan Village community related to disaster mitigation efforts are as follows. First, regarding the ritual of *Tolak Bala*, informant 1 said that there are two versions of its implementation. The first version performs this ritual every 10th of *Muharram*, then the second version performs it every *Wage* Friday in the month of *Muharram*. The implementation is in the origin of *Kambangan* Hamlet. Informant 3_A added that this tradition was carried out from generation to generation in the context of preventing disasters in Menawan Village. There are special conditions in its implementation, the goat that is slaughtered is a type of *Kendhit* goat. The goat has a black color with a bit of white that wraps around its body like a belt. Informant 1 said that if a *Kendhit* goat is not found, it is allowed to use another type of goat. This tradition is carried out independently by residents of *RW 5* and *RW 7* to keep the tradition going.

Informant 1_E once said that the implementation of the *Sedekah Bumi* tradition had stopped. Ahead of the big landslide disaster in 2014, the tradition was never held. Then with the great disaster in 2014, it made a separate lesson for the residents of Menawan Village to revive the tradition of *Sedekah Bumi*. So until now, this tradition has never been abandoned again.

Even in addition to disaster prevention by *Tolak Bala*, there is also *barikan*. There are several kinds of *barikan* itself, there are *barikan jalan*, *barikan agustusan*, and also *tolak bala* that include into the *barikan* category. Then the *sedekah bumi* tradition is held in the month of *apit* on *Pon* Tuesday every year and there is always salvation or recitation. The earth alms tradition is often used as a means to give thanks to God Almighty and ask to be avoided disasters as was done by the people of Rahtawu Village [5].

Conclusion

Based on the findings of the study, local wisdom is found as a disaster mitigation effort by the Menawan Village community. The local wisdom found is about (1) *Tolak Bala*, (2) *Sedekah Bumi* (Earth Alms)*,* and (3) *Barikan*. *Sedekah Bumi* tradition was never carried out

before the big landslide disaster in 2014. Based on the people of Menawan Village's belief, the disaster is associated with the stagnation of *Sedekah Bumi*. So that after the 2014 landslide, the Menawan Villagers returned to keep the earth alms tradition.

Refrences

[1]   F. Fatiatun, F. Firdaus, S. Jumini, and N. P. Adi, "Analisis Bencana Tanah Longsor Serta Mitigasinya," *SPEKTRA J. Kaji. Pendidik. Sains*, vol. 5, no. 2, p. 134, 2019, doi: 10.32699/spektra.v5i2.113.

[2]   M. A. Marfai, *Pengantar Etika Lingkungan dan Kearifan Lokal*. Yogyakarta: Gajah Mada University Press, 2012.

[3]   H. S. Naryanto, F. Prawiradisastra, A. Kristijono, and D. Ganesha, "Penataan Kawasan Pasca Bencana Tanah Longsor Di Puncak Pass, Kecamatan Cipanas, Kabupaten Cianjur Tanggal 28 Maret 2018," *J. Pengelolaan Sumberd. Alam dan Lingkung. (Journal Nat. Resour. Environ. Manag.*, vol. 9, no. 4, pp. 1053–1065, 2019, doi: 10.29244/jpsl.9.4.1053-1065.

[4]   R. C. E. Permana, I. P. Nasution, and J. Gunawijaya, "Kearifan Lokal tentang Mitigasi Bencana pada Masyarakat Baduy," *Makara Hum. Behav. Stud. Asia*, vol. 15, no. 1, pp. 67–76, 2011, doi: . https://doi.org/10.7454/ mssh.v15i1.954.

[5]   E. B. Prastyo, M. K. Khasan, and M. N. Makhali, "Prosiding Temilnas IPS 2021 ISSN: 2503-0965," *MITIGASI BENCANA Berbas. KEARIFAN Lokal Masy. DESA RAHTAWU Disaster*, pp. 204–227, 2022.

[6]   Sartini, "Menggali Kearifan Lokal Nusantara: Sebuah Kajian Filsafati," *J. Filsafat*, vol. 14, no. 2, pp. 111–120, 2004, doi: https://doi.org/10.22146/jf.33910.

[7]   M. R. Wahyudi and Z. Alhadi, "Pendekatan Dalam Mitigasi Bencana Tanah Longsor Di Kenagarian Sungai Landia Kecamatan Iv Koto Kabupaten Agam," *J. Manaj. dan Ilmu Adm. Publik*, vol. 3, no. 1, pp. 47–55, 2021, doi: 10.24036/jmiap.v3i1.227.

[8]   M. Widjanarko, *Psikologi Lingkungan, Berbasis Kearifan Lokal*. Kudus: Badan Penerbit Universitas Muria Kudus, 2014. [Online]. Available: http://eprints.umk.ac.id/12943/

[9]   M. Widjanarko and U. Minnafiah, "Pengaruh Pendidikan Bencana Pada Perilaku Kesiapsiagaan Siswa," *J. Ecopsy*, vol. 5, no. 1, p. 1, 2018, doi: 10.20527/ecopsy.v5i1.4878

Driving the Youth's Idealism to Focus on Social Entrepreneurship

Muhamad Ahsan[1]

Introduction

The youth are the nation's hope. They are the agent of change. Give me ten youngsters, and I will shake the world. There may be other untold jargons. The point is the youth are identical to change. Why are the youth the choice? Many studies state that the youth have more energy since in their age they have strong physique and high idealism. Research results show that with good education, the youth can be the agent of change [1] and solve social problems [2]. From the survey conducted, 13% of the youth have the desire to create something different [3]. This research result proves that the youth still have idealism and care about their environment when they are given with education and chance for self-development.

Campus as an educational institution that accommodates the youth in developing their knowledge assumes non-simple tasks. The advancement of information technology that has reached rural areas has caused positive and negative excess. The issue of automation with artificial intelligence (AI) and Society 5.0 (S 5.0) should have campuses been aware of the importance of the youth's idealism in the face of the future ever changing conditions.

The unemployment rate data released by the government were still relatively high, at 5.86% (August 2022) (https://www.bps.go.id) even if this rate tends to decline compared to the 2021 data of 6.49% (August 2021). This rate can certainly move up considering the automation and world economic condition under global economic and political uncertainty. Therefore, campus as an educational institution should maintain the youth's idealism and keep growing strong patriotism in order to keep the economic spirit in their respective region by enhancing social abilities (social entrepreneurship).

Social entrepreneurship is a choice since it is close to the Society 5.0 issue as a human centered and technology based concept of society. It is here that integration between the youth's idealism and

---

[1] Faculty of Islamic Economics and Business, UIN Sunan Ampel Surabaya

globalized local economic based society development can be initiated. Therefore, campus's task to continuously keep this issue is important. Besides, campus should also have measured programs, especially in (social) entrepreneurial learning curriculum. And politically, the government should issue policy that supports the concept of driving the youth as the agent of change in social business.

The youth's success in developing social business cannot only support government's programs in poverty alleviation, but can also support SDGs program in poverty alleviation. The question is: has all this time campus maintained the SE issue in association with nationalism issue to drive the economy? How many youngsters want to enter SE sector? Has their SE curriculum reach the youth to focus on this sector? How many investment companies are interested in this and giving capital support? These are examples of challenging questions for further discussion in preparation to anticipation disruptive excess due to Industrial Revolution 4.0 (IR4.0) and welcoming the wave of Society 5.0 (S 5.0).

Discussion

Social entrepreneurship (SE) is a sub-discipline of entrepreneurship [4]. Another study states that SE is of the non-profit sector [5] and non-commercial organization [6] category. SE has two sides of the concept simultaneously, social and entrepreneurship [7]. This means that SE is one type of entrepreneurship [8]. SE is also defined as a cycle of process of social idea formation through some measures such as creation, evaluation and exploiting opportunity [9] to create a social value which may become social and sustainable change [10]. The point is that a social entrepreneur is an agent of social change who attempts to create social value.

In this discussion section, SE is important to anticipate excess of IR 4.0 and prepare Society 5.0. Also, it is important to anticipate any kinds of threat due to technological disruption that can cut labor absorption due to automation. As in the questions in the introduction, in the Society 5.0 era, SE should develop better since Society 5.0 is simply a frame of relationship between individual with their community through technology's mediation. This means that unconsciously we have experienced Society 5.0 in certain things. SE has the components for it, where there is initiator, community and use of technology as mediation in developing social business [11].

SE and Nationalism

Entrepreneurial learning concept is quite common in colleges worldwide, such as Babson College, MIT and University of California, Barkeley. Indonesia does not wish to be left behind from the SE issue trend. Some colleges are indeed focused on their vision to be an entrepreneur university. For example, Ciputra University clearly states its vision of 'creating world class entrepreneurs'.

There is a correlation between nationalism and SE. Indonesia has SE history from the colonial era. The social movement at the time was in the form of cooperative, initiated to protect the natives from moneylenders [12]. The idea to establish cooperative was stimulated by the sense of having the same feeling of getting oppressed by the Dutch colonialism at the time. Besides raising the sense of nationalism, SE can also make the community feels respected and empowered. SE can also break the chain of poverty [13].

There are only few studies found on the correlation between SE and the sense of nationalism. However, every country always attempts to increase their number of entrepreneurs as the lever for the nation's prosperity. According to the data released by ceoworld.biz, Indonesia was ranked 45th out of 100 in *The world's most entrepreneurial countries* in 2021 [14] with total entrepreneurs of 3.4%. Indonesia needs 14% to be an advanced country [15]. The government's serious efforts are needed to have the number of entrepreneurs increased, especially social entrepreneurs.

The Youth and SE

Why the youth? Since the youth is the nation's hope. It is the youth that a nation lies its hope on. That is why there is a saying that in order to destroy a nation, destroy its youngsters. The hope of a nation is its youngsters. If the youth are not given the chance and opportunity to develop, it is certain that the nation will have difficulties in the future. To develop, the youth need access to public spaces, including education and training.

The education and training given to the youth as the nation's support in building its community are, among others, for them to become social business initiators or social entrepreneurs. Not many of the youth focus on social business. One of the causes is that they do not have social sensitivity. It is unlikely to give solution to problems in their surroundings when they have no social sensitivity [16]. This is a challenge for the government to educate the young generation for them to have social sensitivity.

The assumption above is confirmed by the premise 'if the youth are made aware of the social entrepreneurship concept, the

importance of their role for the community and that they have the ability to create new business, they will do it' [17]. The premise above shows that it is necessary to make a planned socialization to grow the youth's awareness of the importance of social entrepreneurship. This awareness can raise self-confidence of the role expected from them for public and state's benefits. Strong self-confidence can stimulate the motivation to do something as a solution to problems in the community.

Curriculum and SE

A good college can respond to social problems. Its curriculum is designed to grow and increase its students' social sensitivity who are 'nota bene' of the age of the youth and productive [16]. Some studies on curriculum still do not show the specifications of social entrepreneurship specifically. The discussion is still on entrepreneurial interest [18] and college's role with entrepreneurial curriculum as the mediator and facilitator in entrepreneurial learning [19], while the laboratory for growing new social entrepreneurs is problems directly emerging in the community. The question is: Is the curriculum arranged able to answer them? Or, is it due to the assumption that the benefits from social entrepreneurship not promising? The research results show that the term benefit in SE is not taboo since the philosophy of gaining profit is how SE become healthy financially and is able to achieve its goals with social responsibility to raise the community's economy [20].

Then, what kind of curriculum should be offered to drive SE to emerge massively? There is no certain guarantee that desired goals can be achieved with a good curriculum design. There must be binding commitment between all the parties involved, including lecturers, students/the youth and learning laboratory (community). Village-Owned Enterprise (BUMDes) can be an example for student to learn as village government's effort to improve the people's prosperity through social entrepreneurship, despite BUMDes's unsatisfactory efforts [21]. The reason is that the motive of BUMDes establishment is only profit oriented and ignores social development and public empowerment aspects [22]. BUMDes management model is a social business model with natural principle, professional management, subsidiarity and non-profit orientation [23];[24].

Investment Company and SE

According to the data, there are not many Investment Companies (ICs) investing in SE. From website search, it is found that some investor networks focus on financing SE, one of which is Angel

Investment Network Indonesia (ANGIN) [25]. In its report, ANGIN classifies types of support that can be given to social entrepreneurs in Jakarta and outside Jakarta. The supports in Jakarta are in the form of expertise and funding track record, while outside Jakarta it is in the form of capital or flexible payment. The other forms of support in and outside Jakarta include training and guidance, helping achieve goals and measuring social impact.

The other form of attempt to drive SE is using corporate social responsibility (CSR) offered by companies. CSR is mandatory for companies and has been promulgated now, thus the chance for social business funding is more open even if obtaining it requires approach using certain 'closeness'.

SE, AI and S 5.0

The relation between SE, AI and S 5.0 is important for social business players to enter the new era, especially those who want to develop their market coverage. Society 5.0 will not be formed without progressive advancement of AI [11]. The field challenges and constraints are how strong the coverage of a network reaching a certain area is. In urban setting with its public facilities fulfilled, there will be problem. However, what about certain areas with connectivity network that is not as good as that in big cities? The government must intervene to solve such constraints since SE, AI and S 5.0 are interrelated. SE can be formed without AI, but without AI, S 5.0 will not be formed.

This paper attempts to offer a future Se development model to greet the strong wave of S 5.0 due to excess of information technology advancement, especially AI. There are four elements offered to develop SE in regions to strengthen economic growth and alleviate poverty, with the youth as the essence with support of AI in synergy with SE and S 5.0. This can be explained below:
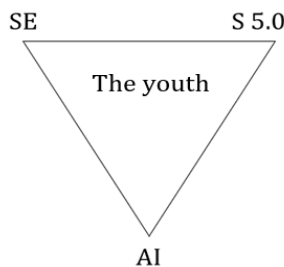

Figure 1. Model of driving SE-S5.0

This model can run well when it is supported by the youth's strong sense of nationalism and curriculum with measured output to develop SE. AI is the balancing support of synergy between SE and S 5.0. which can present measured social impact (outcome). In college, students as the youth with idealism can initially experiment in internship with BUMDes, as the laboratory. Strong care is expected to rise from such internship process and they will feel summoned to foster BUMDes as a financially healthy social business with professional management.

For another alternative of the outcome of internship with BUMDes, the youth can initiate new social business. Ideas that emerge can vary due to inspiration coming from experiment with BUMDes as the laboratory. At the very least, the memory instilled in the youth's mind makes them understand how to initiate (new) social business with support of technology as mediation for humans' benefits widely. May this become the goals of Society 5.0.

Conclusion

Driving and reaching the youth's heart to focus on social business in the digital era is not easy, but not an impossibility. The youth need to be educated to drive the economy as a nation, thus they feel respected and understand the importance of their contribution. Future difficult challenges due to the development of IR 4.0 can be answered with high creativity and optimism so as to adapt fast. Finally, new energy will emerge, and the IR 4.0 development can be used to create new social business that is beneficial for the public. Let us greet Society 5.0.

References

[1] S. Punya, "Young People as Agents of Change: The Mekong School's Approach to Strengthening Young People's Potential for Sustainable Development in the Mekong Subregion," *J. Mekong Soc.*, vol. 18, no. 1, pp. 154–174, 2022.

[2] M. G. Bublitz *et al.*, "Rise Up: Understanding Youth Social Entrepreneurs and Their Ecosystems," *J. Public Policy Mark.*, vol. 40, no. 2, pp. 206–225, 2020.

[3] R. Baumsteiger, B. Riches, S. A. Mangan, J. McConchie, and K. C. Bronk, "What's Your 'Why'?: A Content Analysis of Youth Purpose," *J. Character Educ.*, vol. 18, no. 1, pp. 1–14, 2022.

[4] S. T. Certo and T. Miller, "Social entrepreneurship: Key issues and concepts," *Bus. Horiz.*, vol. 51, no. 4, pp. 267–271, 2008.

[5] J. L. Thompson, "The world of the social entrepreneur," *Int. J. Public Sect. Manag.*, vol. 15, no. 4–5, pp. 412–431, 2002.

[6] R. Spear, "Social entrepreneurship: A different model?," *Int. J. Soc. Econ.*, vol. 33, no. 5–6, pp. 399–410, 2006.

[7] A. M. Peredo and M. McLean, "Social entrepreneurship: A critical review of the concept," *J. World Bus.*, vol. 41, no. 1, pp. 56–65, 2006.

[8] J. G. Dees, "The Meaning of 'Social Entrepreneurship,'" pp. 1–5, 2001.

[9] S. Shane and S. Venkataraman, "The Promise of Enterpreneurship as a Field of Research," *Acad. Manag. Rev.*, vol. 25, no. 1, p. 217, 2000.

[10] A. Salamzadeh, Y. Salamzadeh, and M. Nejati, "Social Entrepreneurship: Analyzing Literature and Proposing a Comprehensive Model," 2011, pp. 520–525.

[11] H.-Ut. Laboratory, Ed., *Society 5.0 A People-centric Super-smart Society*. Tokyo - Japan: Springer Open, 2020.

[12] A. Idris and R. Hijrah Hati, "Social Entrepreneurship in Indonesia: Lessons from the Past," *J. Soc. Entrep.*, vol. 4, no. 3, pp. 277–301, 2013.

[13] M. Saputra, "Pemberdayaan Warga Negara Dan Kewirausahaan Sosial: Pemutusan Mata Rantai Anak Jalanan," *J. Ilm. Pendidik. Pancasila dan Kewarganegaraan*, vol. 3, no. 2, p. 144, 2018.

[14] A. Dimitropoulou, "World's Most Entreprenurial Countries, 2021," 2021.

[15] Hafiyyan, "Pengusaha RI Baru 3,4 Persen, Butuh 14 Persen untuk Jadi Negara Maju," 2022.

[16] L. lak N. Hasanah, "Pengembangan Kewirausahaan Sosial Pada Perguruan Tinggi melalui Social Project Competition," *J. Stud. Pemuda*, vol. 7, no. 2, p. 90, 2019.

[17] D. A. Kirby and N. Ibrahim, "The case for (social) entrepreneurship education in Egyptian universities," *Educ. Train.*, vol. 53, no. 5, pp. 403–415, 2011.

[18] R. P. D. Karyaningsih, D. Purwana, and A. Wibowo, "Hubungan Pola Asuh, Kurikulum Kewirausahaan Dan Intensi Berwirausaha Mahasiswa Fakultas Ekonomi Universitas Negeri Jakarta," *J. Pendidik. Ekon. dan Bisnis*, vol. 5, no. 1, pp. 1–17, 2017.

[19] R. Meiriyanti and A. Santoso, "Implementasi Kurikulum Berbasis Entrepreneurship untuk Mencetak Generasi Pengusaha dalam Menghadapi Bonus Demografi.," *J. Ekon.*, vol. 12, no. 2, pp. 1–21, 2017.

[20] A. Duarte Alonso, S. Kok, and S. O'Brien, "'Profit Is Not a Dirty Word': Social Entrepreneurship and Community Development," *J. Soc. Entrep.*, vol. 11, no. 2, pp. 111–133, 2019.

[21] M. Muryanti, "Menuju Kewirausahaan Sosial di Desa melalui

Badan Usaha Milik Desa," *Society*, vol. 8, no. 1, pp. 163–174, 2020.

[22] PSKPUGM, "BUMDes Sebagai Wirausaha Sosial untuk Kesejahteraan Masyarakat Desa," *Pskp.Ugm.Ac.Id*, 2019. [Online]. Available: https://pspk.ugm.ac.id/2019/10/06/bumdes-sebagai-wirausaha-sosial-untuk-kesejahteraan-masyarakat-desa/.

[23] K. RI, "Pengelolaan BUMDES: 'Model Usaha Bisnis Sosial Untuk BUMDES,'" 2020. .

[24] F. Putra, "Model Bisnis Sosial untuk BUMDes," 2019. [Online]. Available: https://ukmindonesia.id/baca-deskripsi-posts/model-bisnis-sosial-untuk-bumdes/.

[25] ANGIN, "Investasi Berdampak: Menumbuhkan Usaha Berdampak Sosial dan Lingkungan di Indonesia," 2021.

Developing Critical Thinking Skills: An Analysis Study for Science Learning

Muhammad Minan Chusni[1]

Introduction

The competencies needed for survival today are higher than the last few decades. Access to information disclosure, fast-paced and instant service, and an extensive exchange of resources have become a factor for the high qualification required to live in the 21st century. These qualifications spread into each field of life ranging from education, politics, engineering, sports, science, law, and arts. In educational system, there are four basic competencies that must be having by the students to face and adapt with education challenge in 21st century. These competencies are known as 4C (Critical Thinking Skill, Creative Thinking skills, Collaborative skill, and Communicative skills). These competencies are related to each other in preparing student competencies. This is important because these competencies basically have an orientation to do as process, or to build as product. Critical thinking skills become one of the competencies which are indispensable specially to adapt with modern society in 21st century. Critical thinking skills are not only product oriented. However, the learning process is also an important factor in training critical thinking skills, because 1) Critical thinking skills prepare students for self-assessment and ensure them to make choices and make correct conclusions [1], 2) Critical thinking skills prepare students for self-assessment and ensure them to make choices and correct conclusions [2], 3) Critical thinking makes students optimize their potential in viewing problems, solve problems, or create something [3] 4) Critical thinking is a universal skill such as the clear and rational thinking necessary for every effort to work, every effort to learn, any effort to solve the problem, or any effort to pursue a career [3], 5) Critical thinking skills improve verbal and analytical ability of the students [3], and 6) Critical thinking skills can increase creativity [4]. To produce a creative solution of a problem, it is necessary a new idea that is useful and relevant to the tasks that students must resolve. Critical thinking is useful for evaluating new ideas, choosing the best, and modifying as needed [4]. Based on these reasons, the learning that provides critical thinking skills is very necessary to be optimized in a school.

[1] Physics Education Study Program, UIN Sunan Gunung Djati Bandung, email: minan.chusni@uinsgd.ac.id

Critical thinking skills have the minimum competencies that students must have after following their studies. According to Edward Glaser's critical thinking skills include several abilities, namely 1) know the problem; 2) Find ways to solve the problem; 3) gather and compile information, 4) know the assumptions and values that are not stated; 5) use the right language, clear and distinctive; 6) Analyzing the data; 7) Assessing facts and evaluating statements; 8) Recognizing the logical relationship between problems, 9) making conclusions; 10) testing conclusions; 11) reorganized the patterns of beliefs based on experience; and 12) made the right judgment [5]. In addition, Marzano describes the characteristics of people who are capable of critical thinking i.e. 1) looking for clarity of problems; 2) make excuses with self-thinking; 3) trying to collect information from various sources; 4) Choose and use a reliable source; 5) Pay attention to the situation thoroughly, 6) consistent with the subject of problems; 7) referring to the basis of the problem; 8) Looking for alternative; 9) open-minded; 10) provide sufficient reason; 11) work precisely and carefully; 12) solve problems systematically (clear language use); 13) Sensitive against feelings and levels of knowledge [6], [7]. Generally, it can be concluded that a common feature of students who already have good critical thinking skills is 1) can analyze and identify problems, 2) can determine a valid source, 3) can analyze the data and facts obtained, 4) able to make conclusions accurately, and 5) can give a logical explanation of the current phenomenon that comes with the relevant alternative solutions. Therefore, training of critical thinking is essentially not a difficult thing to do. It is given that there are only five competencies/basic traits that students must have.

The facts found in schools show different things. The learning process that provides training on critical thinking skills is still low. Some of the causes found are the lack of practical reference materials that guide teachers in implementing critical thinking in schools. In addition, learning models that practice critical thinking skills are not fully adaptive to socio-cultural conditions in Indonesia. It is therefore necessary a discussion that explains how to implement learning skills based on critical thinking in Indonesia. Other facts show that learning in general in schools that practice critical thinking skills still use a conservative learning model that is Teacher center. This needs to be corrected because the critical thinking skills have a scientific method principle that students must follow thoroughly. Therefore, this paper aims to identify and explain the learning models that improve critical thinking skills effectively. Researchers hope this paper can provide analytical solutions and explanations to the teachers in drafting the learning plan to improve the skills of critical thinking.

Discussion

Thinking skills have been one of the main competencies that are trained by the education system in many countries. Educational practitioners believe that thinking skills have an important role for a person to be able to survive and compete in a fast-paced and competitive life. In disruption era and thinking skills are a priority for students [8]. This is in accordance with the criteria and challenges of life in the 21st century which requires very problem-solving skills and thinking abilities. One of the thinking skills that supports to problem solving ability is critical thinking skills.

Critical thinking skills are important for individuals to live, work, and effectively perform roles and functions in society. Almost all professions such as education, engineering, management, medical, finance, politics and law require critical thinking skills for each of his employees. This is because the critical thinking skills are able to make a subject to think clearly and rationally so they can resolve the problem systematically. Besides, the challenges of human competition with machines, robots, and artificial intelligence greatly affect the student's point of view on environmental conditions. Some experts argue about the definition of critical thinking as found in Table 1.

Table 1. Expert definition of critical thinking skills

Author	Definition
Watson Glaser 1941	Think about the problems that occur in the surrounding environment, knowledge of problem-solving methods, and know how to implement them.
Ennis, 1987	A sensible reflective thought focused on deciding what to believe or do
Richard Paul 1987	Ability to achieve accurate conclusions based on observation and information
Angelo, 1995	A planned implementation of rational and high order thinking skills such as analysis, synthesis, problem identification, problem solving, inference, and evaluation
Beyer, 1995	The way to discipline in thinking is used to evaluate and validity things.
Halpern, 1996	A purposeful, reasoned, and systematic thinking that is involved in solving problems, making conclusions, calculating possibilities, and creating decisions.

Based on opinions on table 1, it can be concluded that critical thinking skills have the characteristic of involving active interactions with knowledge, the use of techniques for problem solving and making

decisions that are linear and serialized, more structured, more rational, more analytical, and more purpose-oriented. So sometimes referred to as left-brain thought (analytical, serial, logical, objective)

Critical thinking Skills have a foundation of activity that is scientific method. The principle scientific method is a series of processes that give students the experience to be able to think and act as a scientist. There are eight stages in scientific methods such as observation, question, research, hypothesis, experiment, test of hypothesis, conclusion, and report [9]. The eight stages can be grouped into two outline activities as contained in Figure 1.
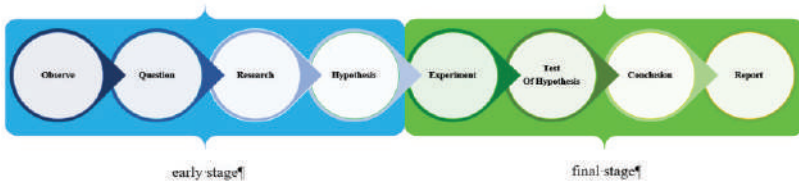

Figure 1 Stages of Scientific Method

In Figure 1, it appears that the eight stages of the scientific method can be classified into the initial stage (left image) and the final stage (image right). The two-stage division refers to the form of activities performed by the students. The initial stage can be expressed as a preparatory stage where the student seeks as much information as possible either from the phenomenon or theories describing the phenomenon. In addition, in the early-stage students are also prepared to provide a temporary answer based on the literature and preliminary information regarding the questions on the task. In the final stage students are more prepared to collect information by experiment. This means that students are directed to conduct an experiment that generates real data/information from the problem/phenomenon being solved. In the final stage, students will analyze the hypotheses that they have already pointed out to make conclusions and reports.

Observe, In this stage students will observe a phenomenon. Observation stage aims to prepare the students to gets the detail information from the phenomenon. As a result, the students have collected the scientific fact about the phenomenon. If the learning is done in the class, teacher can use demonstration, simulation, or watch video to provide the phenomenon. All of the phenomenon must be contextual, so that the students will directly feel the closeness of the knowledge that they are learning with the surrounding environment [10]. *Questions*, this stage aims to train students in making scientific questions (what, why, and how) to the facts they have found on observation activities. Questions must be logical and empirical. This is

because the question is the basis of what they want to know after the learning process. Indirectly, the teacher in this matter directs a brief discussion of the learning objectives to be studied. The effect of such a brief discussion gives students the opportunity to design what they will learn. So that students will have more motivation to follow the learning process [10].

Research stage is an activity where students conduct theoretical searches to explain the phenomenon and to answer questions in the previous step. Sources used as reference material come from scientific books or previous research results. The result of this stage is the theoretical background to be used by students at the analysis stage. After students get the theoretical background, the student is directed to create a temporary presumption/hypothesis to answer the question at the previous stage. To formulate the *hypotheses* includes activities that are quite difficult, because students should be able to provide a temporary answer that must meet with multiple criteria. There are six criteria of hypothesis i.e. 1) showing the relationship of variable; 2) in accordance with the fact; 3) relate to the science; 4) must be tested/proven; 5) simple; and 6) explain the fact.

The final stage is also called the second cycle that begin with *experiment activity*. In this stage, students are collecting data or information by conducting experiment. The experimental stage is crucial for students because all answers of their questions will be served at this stage. Teacher serves as a facilitator that guides to prevent the students from leading to an alternative concept. The teacher directs the student's activity to not get such a big error. [10]. After the data are collected, students must process and analyze the data to be used as reference in answering hypothesis (*test of hypothesis*). Data processing and data calculations are as detailed as possible in order to get specific error values from the experiment. The result of this stage is acceptance or rejection of hypothesis. Please note, in testing and analyzing the data are not allowed to lead the result so that the hypothesis can be accepted.

Conclusion. Conclusion is the answer to the students ' questions [10]. In conclusion, students were freed in drafting a conclusion framework independently without being influenced by the teacher. The goal is to practice the confidence and practice the deduction skills. The last stage is communicating by creating a *report*. Report is a space that is given to the students to declare what were their findings. This stage aims to give appreciation to the students' work. Besides, at this stage, the teacher can also provide input and verify the results of the students in order not to happen a misconceptions [10].

There are many of idea from the expert about the critical thinking skills indicators. One of which was declared by Watson-Glaser that has developing an instrument test called The Watson-Glaser Critical Thinking Appraisal (WGCTA) [11], [12]. There are five indicators of critical thinking skills of Watson-Glaser i.e. Inference, Recognition Assumptions, Deduction, Interpretation, and Evaluation of Arguments [13], [14].

Inference is an ability to assess the level of accuracy/correctness based on available information. The assumptions recognition indicator is the ability to identify assumptions implied in a statement. Next is deduction which is an ability in determining whether conclusions are created logically based on available information. Interpretation is the ability to assess evidence and make decisions about the accuracy of generalization/conclusions based on the available data. Evaluation is an ability to evaluate the strength and relevance of an argument. [11]–[14]. In general, it can be concluded that the critical thinking skills indicators by Watson-Glaser can be grouped into four [11] as follow: a) occlude, is an ability to classify the level of truth and error of a statement based on the data, b) The assumption, is to give an implied allegation or prejudice of the statement or premise, c) Deduction, is an ability to decide conclusions to attend the data or to attend the premise, d)Interpretation, an attempt to clarify the evidence and to generalize the data into conclusion.

Critical thinking skills training can be done in two ways, logically and empirically. Logically, it is a coherent thinking pattern that is not the final conclusion. In simple terms, logically thinking is an effort to explain the phenomenon as a presumption before the concrete data/information is obtained. Meanwhile, empirical thinking is indicated by the inductive thinking pattern and the correctness of correspondence that results in generalization. [15], [16]. Logical and empirical thinking patterns will bring students to observe, explain, and conclude a phenomenon accurately.

The training is logic conducted through a learning process that emphasizes the reduction and coherence aspects. In the reduction aspect, students reduce all information that obtained at the first stage to focus on the problem. The coherency aspect emphasizes students that the newest knowledge that they get after learning is not contrary to the knowledge that they have before. Based on Watson-Glaser's Critical Thinking skills indicators, training with logical way is suitable to indicators of inference, recognition assumption, and deduction. As a result of the training logically, students are able to formulate the hypotheses.

Empirical training emphasizes on the induction and correspondence aspect. In the induction aspect, students are directed to be able to take the final symptoms of the earliest symptoms found. This means that students are directed to make conclusions based on the results. The correspondence aspect teaches the students to be objective. Students should be able to explore the primary information which is derived from facts. In relation to the indicators of critical thinking skills by Watson-Glaser, so empirically, training process is perfect to achieve the interpretation and evaluation of arguments indicators.

Conclusion

The implementation of the discovery learning model without any helps seems ineffective, while the implementation of discovery learning model by giving the helps from teachers to engage students into active and constructive learning is giving more optimal results. Based on this analysis, discovery learning model can be optimum when it includes: provision of assistance/guidance to the students at the right time-place and giving instruction that requires students to explain ideas and giving feedback to the idea to clarify the accuracy of that ideas. The opportunity for constructive learning does not appear on its own when students are not assisted. This study is expected to open discussions which relate, in effective ways, to provide assistance of how to provide feedback in classroom settings and how to provide direct instruction when learning.

References

[1]   Z. Brown, "The use of in-class debates as a teaching strategy in increasing students' critical thinking and collaborative learning skills in higher education," *Educationalfeatures*, vol. 7, no. 1, pp. 39–55, 2015.

[2]   G. G. Nair and L. L. Stamler, "A conceptual framework for developing a critical thinking self-assessment scale," *J. Nurs. Educ.*, vol. 52, no. 3, pp. 131–138, 2013.

[3]   T. D. Geert and M. Volman, "Critical thinking as a citizenship competence: teaching strategies," *Learn. Instr.*, vol. 14, no. 4, pp. 359–379, 2004.

[4]   M. Baker, R. Rudd, and C. Pomeroy, "Relationships between critical and creative thinking," *J. South. Agric. Educ. Res.*, vol. 51, no. 1, pp. 173–188, 2001.

[5]   Kowiyah, "Meningkatkan Kemampuan Berpikir Kritis pada Pembelajaran Matematika Berbasis Masalah," *J. Edukasi*, vol. 3, p. 15, 2012.

[6]   R. J. Marzano, *Designing a New Texonomy of Education*

Objective Thousand Oaks. California: Corwin Press, 2001.

[7] Kurniawan and Eri, "Pemudayaan Keterampilan Berpikir Kritis Diperguruan Tinggi Melalui Cognitive Coaching," *J. Edukasi,* vol. 2, p. 23, 2009.

[8] S. L. Kong, "Effects of a cognitive-infusion intervention on critical thinking skills and dispositions of pre-service teachers," 2006.

[9] S. Supriadi, S. Suparno, M. Giatman, and E. Edidas, "Teaching Material Development Oriented On The Saintific Approach Of 5m In Learning Automotive Basic Technology.," *J. Pendidik. Teknol. Kejuru.*, vol. 3, no. 1, pp. 55-59., 2020.

[10] S. S. Carey, *A beginner's guide to scientific method*, 4th ed. Wadsworth Cengage Learning, 2011.

[11] A. Danaryanti and A. T. Lestari, "Analisis Kemampuan Berpikir Kritis Dalam Matematika Mengacu Pada Watson-Glaser Critical Thinking Appraisal Pada Siswa Kelas VIII Smp Negeri Di Banjarmasin Tengah Tahun Pelajaran 2016/2017," *EDU-MAT J. Pendidik. Mat.*, vol. 5, no. 2, pp. 116–126, 2018, doi: 10.20527/edumat.v5i2.4631.

[12] F. Fajrianthi, W. Hendriani, and B. G. Septarini, "Pengembangan Tes Berpikir Kritis Dengan Pendekatan Item Response Theory," *J. Penelit. dan Eval. Pendidik.*, vol. 20, no. 1, pp. 45–55, 2016, doi: 10.21831/pep.v20i1.6304.

[13] N. Fazriyah, Y. Supriyati, and W. Rahayu, "Watson-Glaser ' s Critical Thinking Skills Watson- Glaser ' s Critical Thinking Skills," in *2nd International Conference on Statistics, Mathematics, Teaching, and Research*, 2018, pp. 1–6.

[14] L. Sternod and B. French, " Test Review: Watson, G., & Glaser, E. M. (2010). Watson-Glaser™ II Critical Thinking Appraisal ," *J. Psychoeduc. Assess.*, vol. 34, no. 6, pp. 607–611, 2016, doi: 10.1177/0734282915622855.

[15] E. R. Lai, "Critical thinking: A literature review," *Pearson's Res. Reports*, vol. 6, pp. 40-41., 2011.

[16] J. McPeck, "The evaluation of critical thinking programs: Dangers and dogmas," *Informal Log.*, vol. 6, no. 2, 1984.

Cultural And Social Understanding In The Digital Literacy And Its Role In English Literature

Mutmainnah Mustofa[1]

Introduction

The development of the digital world Revolution Industry 4.0 which is experiencing fast changing in Indonesia now has become part of society life. The ability to understand digital literacy can push curiosity and develop knowledge and creativity of the students in English learning. Moreover, the ability in using technology would support students' process in learning English literature in this 5.0 Society. The digital age affects the development of many disciplines such as technology and education, and ICT allows student to understand digital capabilities. Digital literacy plays a significant role in developing students' knowledge and creativity. The emergence of Information and Communications Technology (ICT) has undoubtedly affected the teaching and learning process. Numerous instructive frameworks accept that utilizing ICT will advantage understudies and engage instructors and understudies in terms of improving learning and procuring 21st-century aptitudes [9].

Besides, Technology has created many tools for education, and as digital technology develops rapidly and continually, people need to use a latest variety of technical, sociological, and cognitive skills so that they can perform tasks and overcome problems in digital environment, Phuapan, et. al. [7]. It is for the most part accepted that advances display understudies with an unused educating and learning environment that's more collaborative and locks in. Teachers consider that English teaching and learning activities are efficient by implementing digital literature. Koskimaa expressed that digital literature may be a scholarly work within the modern media scene. Digital English literature is the term for literature that happened in technology era. English Language Teaching is an activity where English is being taught

[1] Islamic University Malang, inamustofa@unisma.ac.id

to the students who do not speak English as their first language. Dewey contended that English education could be a shape of worldwide major depicted as a different term in globalization time, which is impact the educational and cultural hones.

The term digital proficiency was expanded and presently it incorporates all sets of particular aptitudes and competences required for looking, finding, assessing and taking care of data in computerized shape, [10]. Moreover, this research used the classification of Digital Literacy components that proposed by Hague and Payton [1], and one of which is cultural and social understanding. Cultural and social understanding in digital literacy is that having the understanding about social and cultural contexts in using technology. Students' exposure to the global community and peers from different cultural backgrounds is frequently increased by digital media. As a result of this exposure, students are more likely to recognize the social, cultural, and historical influences that shape their own and others' understanding and learning. For example, they must understand that the same actions can have different meanings in different cultures, and that many things that appear natural and neutral at first glance are actually the result of specific cultural and social understandings.

Luckhurst [11] stated that modern cultural technologies such as radio, television, and cinema had formed and inflected traditional literary works in any genres. People's literacy skills are directly proportional to their intellectual and social qualifications. The development of this literacy needs to be aligned with the digitalization of technology because learning in the 21st century requires educators and students to have basic and digital literacy. People would explore and use educational technologies if they are introduced to them and they have a need to use them for a useful purpose, Ng [5]. Moreover, some researchers have discussed that digital literacy is interchangeable with other related terminologies. Information and media literacy are mostly distinguished as similar to digital literacy, and in this case, the information literacy had significantly caught the attention of higher education in the 1990s [6].

Furthermore, the fact that the students are not separated with their gadget, even when it comes to teaching learning process determines the use of digital literacy skills is very important. It is stated by Ng [5] that the students' ability to embrace ICT, in particular the use of mobile phones and social media technology, means that they possess a certain level of digital literacy. Coupled with the above information, Indonesia has encountered an issue with the quality of students' digital literacy skills as many students are unable to use technologies to support English literature learning process which is usually known with digital literature. The researchers wanted to show the role of ICT-Based Learning done by the university lecturers in the process of encouraging and developing the comprehension on English literature of students to strengthen them to face the area of digital technologies and future education. Another demanding task for colleges that provide library and information science courses for information in the twenty-first century is the development of digital literacy [3].

According to a research survey conducted by Ryder and Machajewski [9], students' demeanors or attitudes toward utilizing data and communication innovation and other ICT-related socioeconomics were found to be related with computerized proficiency. Assist investigation utilizing numerous straight relapse investigation uncovered that advanced education (DL), utilize of the tablet and smartphone, earlier computer preparing, and recurrence of computer utilize all have a critical effect on students' states of mind toward utilizing ICT. Not only that, the influence of digital literacy is also related to previous research conducted by Raunaq et al. [8]. The research found out that students showed a positive reaction to extensive reading in online learning. Students felt that the benefits of extensive reading in online learning had a huge impact on expanding their lexicon context in vocabulary development. Students could focus on the educational evaluations they read during the semester. Based on the data in the study, here are the several advantages that were discovered: students could finish reading the entire text, students could determine the main ideas and supporting texts.

In relation to the two previous studies, the researcher considered that the current research was quite related to previous studies because both studies used ICT and digital platforms as variables. This study analyzes the role of cultural and social understanding on university students' comprehension on the English literature which will have expanding significance within the improvement of college instruction of education. This research presents the empirical outcomes about of an overview performed in June 2022 among third to fourth year students in English Education Department in a private university in East Java, Indonesia. In this case, lecturers play an important role in providing and supporting students by implementing English literature into the learning process. The research question is that 'is there any significant correlation between the component of cultural and social understanding in the digital literacy by Hague and Payton [1] and students' comprehension in digital English literature?".

Discussion

In conducting this study, the researcher used a descriptive quantitative research design to identify and describe the existing correlations between the two variables [9]. Initially, the population of this study was the third- and fourth-year students in English department at a private university in Malang, Indonesia. Then, the researcher selected the sample of this study by using random sampling method. Accordingly, the pool of participants consisted of 46 students. This current study used questionnaire on digital literacy by Hague & Payton [2] and students' English literature final score to measure the correlation between the two variables. Questionnaire items on digital literacy skills are compiled based on 8 components of digital literacy. From those components, the researchers broke down some indicators, and chose one component: cultural and social understanding.

For the data analysis, the students' responses to the questionnaire given by the researcher were counted on a basis of six-point Likert scale. Then, the total scores of each student was calculated. After calculating the scores of questionnaires, the researcher analyzed the collected data by using Statistical

Package for the Social Science (SPSS) version 20. Descriptive statistics were performed in order that it could gather the data of the participants and it could calculate the analysis of students' digital literacy. Additionally, Pearson Correlation was performed to figure out whether there was significant correlation in the implementation of ICT-Based Learning and the students' digital literacy skills.

The findings are obtained from the result of the correlation between the students' cultural and social understanding in digital literacy and their comprehension in English literature. The researcher took all classes as the population of this research. From those classes, there are 46 students who were chosen by random sampling method by the researchers. In this subchapter, it was revealed that the respondents employed excellent performance towards English literature course. Thus, the digital literacy that the respondents employed interconnected to their successful result in analyzing cultural and social values in English literature. In this case, their successful result of the course was their final scores. The following will explain the result of the role of digital literacy skills on English literature.

Table 1 The Correlation between the Cultural and Social Understanding in Digital Literacy and English Literature

Correlations

		ICT	DLS
CSU	Pearson Correlation	1	.706*
	Sig. (2-tailed)		<.001
	N	46	46
EL	Pearson Correlation	.706*	1
	Sig. (2-tailed)	<.001	
	N	46	46
*. Correlation is significant at the 0.01 level (2-tailed).

CSU: Cultural and Social Understanding (in Digital Literacy)

EL: English Literature

The research questions focused on identifying whether there is any significant correlation between the component of cultural and social understanding in the digital literacy by

Hague and Payton (2010) had a significant correlation with students' comprehension in English literature. In order to answer this question, the researchers first analyzed data to determine the Pearson Correlation and the Significant (2-tailed). Then the result on bivariate correlation is that Pearson Correlation = .706 and Sig. (2-tailed) = <.001which means that there is a significant correlation between two variables. The correlation is significant at the 0.01 level. This showed that when the students' English literature scores were low, their digital literacy skills were also low and vice versa.

Students' digital literacy skills are directly proportional to their intellectual and social qualifications. Kemendikbud [3] said that the spirit of all educational movements is literacy. The development of this literacy needs to be aligned with the digitalization of technology because learning in the 21st century requires educators and students to have basic and digital literacy. People would explore and use educational technologies if they are introduced to them and they have a need to use them for a useful purpose [5]. Moreover, some researchers have discussed that digital literacy is interchangeable with other related terminologies. Information and media literacy are mostly distinguished as similar to digital literacy, and in this case, the information literacy had significantly caught the attention of higher education in the 1990s, [6].

Students should adapt to their roles transforming from readers into good quality writers in the digital world and from customers to the generators of information. Besides, they need to encounter critical thinking and interpretation. OECD (2012) in Ryder and Machajewski [9], considered the association between the use of ICT-Based Learning and Digital Literacy as a pre-requisite of the digital world. Thus, it is essential for them to have ability to operate digital tools so that they can be able to generate digital content or/and information in various forms. Communication literacy emphasizes the significance of communication as a human activity, admittedly as the foundation of social interaction, and is regarded as a fundamental personal characteristic, whether transmitted verbally or digitally. However, the advancement of online communication, which provides instant communication

between one and several people decommissioned from a face-to-face condition, requires users to become more able to understand the nature and consequences of the type of media.

Analytical thinking about online research of English literature can be difficult for students, and lecturers might have to facilitate the learning process students' internet engagement. When internet research is assigned as school assignments, in-class discussion regarding the competences of surfing on the internet to search, find and select the related information is essentially needed. Furthermore, the lecturers should effectively design assignments and projects so that the students can critically develop the materials they have already discovered. At the most basic level, lecturers could instruct their students on the steps of structuring students' online searches in order that they can discover more necessary details. When creating their assignments, they are encouraged to be as precise as possible and to use multiple or various scientific words.

Literacy practices that use digital technologies to help people make, understand, and share meaning are always embedded in larger contexts. Students exist in societies and systems, and they connected with others in an assortment of ways. Each act of computerized education they lock in has sociohistorical predecessors; it is an act of proficiency since it is related to and bolsters these broader understandings, exercises, and intelligence centered on meaning creation [1]. Related to that statement, the students need to maintain and at the same time develop their social understanding required to effectively arrange and decipher culturally and socially relevant implications in arrange to participate effectively in these practices of cultural and social understanding. In accordance with the data, it can be summarized that most of the students knew how to use technology properly.

Hence, their cultural and social understanding of digital literacy was correlated with their ability in English literature. It indicated that the students thought their own cultural and social skills were as formed as their ability to learn digital literacy. These concerns may derive from the awareness that cultural and social understanding are only one effective component of digital literacy. The ability to engage seriously

with the information skills communicated via digital technologies is the more important aspect of digital literacy. Students would believe they could improve their cultural and social skills and negotiate the ideas they meet and convey when using digital tools.

Conclusion

This study analyzed the relationship between the component of cultural and social understanding in the digital literacy by Hague and Payton [1] had a significant correlation with students' comprehension in English literature. It positions digital literacy as an important entitlement for students and outlines how digital literacy practices can support their full participation in a society where digital technologies are increasingly mediated by their life. Furthermore, as the results of this research showed a significant correlation between the two variables, the researchers would emphasize the critical role of the cultural and social understanding in developing students' digital English literature, as well as how digital literacy can sustain both National Curriculum goals, and educational ethos and values.

References

[1] C. Hague, & S. Payton, Digital Literacy Across the Curriculum, *Future Lab*, *Innovation in Education,* 2010. www.futurelab.org.uk/projects/digital-participation

[2] C. Hague, & S. Payton, Digital Literacy Across the Curriculum, *Curriculum & Leadership Journal, 9*(10), 1-10, 2011.

[3] S. Kaeophanuek, J. Na-Songkhla, and P. Nilsook, How to Enhance Digital Literacy Skills among Information Sciences Students. *International Journal of Information and Education Technology*, *8*(4), 292-297. 2018. doi: 10.18178/ijiet.2018.8.4.1050

[4] Kemendikbud. "*Materi Pendukung Literasi Digital: Gerakan Literasi Nasional". Jakarta: Kementerian Pendidikan dan Kebudayaan*. 2017.

[5]   W. Ng, Can We Teach Digital Natives' Digital Literacy?, *Computers & Education*, 59, 1065–1078, 2012. doi: 10.1016/j.compedu.2012.04.016

[6]   H. Park, H. S. Kim, & H. W. Park, A Scientometric Study of Digital Literacy, ICT Literacy, Information Literacy, And Media Literacy. *Journal of Data and Information Science, 6*(2), 116–138, 2021. https://doi.org/10.2478/jdis-2021-0001

[7]   P. Phuapan, P. Pimdee, and C. Viriyavejakul, An Analysis of Digital Literacy Skills among Thai University Seniors, *International Journal of Emerging Technologies in Learning (iJET)*, 2016. DOI: 10.3991/ijet.v11i03.5301

[8]   M. N. Raunaq, M. Mustofa, dan E. N. Habibah, The Students' Perception of Extensive Reading in Online Learning at FLSP Class. *JEASP: Journal of English for Academic and Specific Purposes, 4*(1), 152-164. 2021.

[9]   R. Ryder, & S. Machajewski, Investigating the Relationship between Students' Digital Literacy and their Attitude Towards using ICT*. International Journal of Educational Technology, 5*(2), 26-34. 2017.

[10] T. Shopova, "Digital Literacy of Students and Its Improvement at the University", *Journal on Efficiency and Responsibility in Education and Science,* Vol. 7, No. 2, pp. 26-32, online ISSN 1803-1617, printed ISSN 1803-1617, 2014. doi: 10.7160/eriesj.2014.070201.

[11] R. Luckhurst, Ending the century: literature and digital technology. In: Marcus, L. and Nicholls, P. (eds.) The Cambridge Companion to Twentieth Century English Literature. Cambridge, UK: Cambridge University Press, 2004, pp. 787-806. ISBN 9781107609488.

Assessment Strategy to Rectify Efl Students' Performance: A Need Analysis

Nirwanto Maruf[1], Adimawati Helingo[2]

Introduction

One of the important aspects regards to teaching and learning activities in EFL/ESL context is assessment. There are many common strategies that can be used in doing assessment such as conducting tests, quizzes, or giving homework and since the teaching of English is integrated thus the assessment process should cover four skills of English [1], [2]. Generally, known as the purpose of designing an assessment is to support and thus enhance learning. It can be said that the purpose of assessment itself is to evaluate to what extent the students' understanding of the knowledge is and that the data gained from classroom assessment becomes the indicator for teachers to determine the suitable methods in their teaching and learning activities.

In classroom, where English teaching as well as learning activities takes place normally, teacher the one who in charge to give assessment. Mostly, teachers give assignment and evaluate the test by themselves and they ignore to give any feedback that causes the students not really aware of their lack of the language and it is harder for them to improve and to be better [3]. However, as time goes by, students are also given chance to participate in evaluating each other, what so called peer-rating strategy or peer feedback. This type of peer assessment will enhance students' ability to give contribution in teaching and learning activities and contributes to provide information for the teacher to assess the students' mastery of knowledge given to them.

Nevertheless, in the case where teacher assess the students' mastery of knowledge, the most common result shows what students have learned are not exactly the same with what the teacher thought he has transferred to them and this is what happens in reality. Thus, the teacher needs to find out appropriate assessment strategy in order to see how much information the students possessed from the teaching and learning process.

[1] University of Muhammadiyah Gresik, nirwanto.maruf@umg.ac.id
[2] State Islamic Institute Sultan Amai Gorontalo, adimawati@iaingorontalo.ac.id

A successful learning process is a process of transferring in formation in which both students and teacher can get advantage. For example, students can learn how to study and are able to demonstrate the knowledge they have learned. They can also improve their ability in English from the way they are assessed. While teacher can find out appropriate assessment strategy to conduct teaching and learning activities that can enhance learners' performance in English.

To find out the appropriate assessment strategy in teaching and learning that is required by learners so that to enhance their performance in class, the researchers conducted this study at English Department, Universitas Negeri Gorontalo. English Department has 39 active lecturers and 2 of them are in charge in Semantic subject in the class that the researcher took as object of the needs analysis. Lecturers in English Department apply classroom-based research in teaching and learning process and implement various learning method such as discovery model, collaborative and cooperative learning.

Literature Reviews
Assessment

A teacher may feel unhappy in teaching and learning process when he discovers, or during process of grading final exam, what his students have learned is not all what he thought he was teaching. It is necessary to ensure learners' comprehensible on course material that teachers brought to the class. In addition to that matter, faculty members need effective ways of monitoring throughout the semester. To monitor the students' comprehension of the course material an assessment is needed. The word assessment brings various perspectives to teachers and students from as what it is defined. Ketabi & Ketabi [4], state that assessment might be thought as the pressure of final exam for students and it usually makes learners fell down, while teachers fell exhausted in preparing and examine the results of assessment. Hence, the state of assessment and test are two different things.

Arber & Hopkin [5], define an assessment is continual action in which covers wider range. It aims to choose learners, put them into proper course, making instructions, divine future accomplishment the learners', determine educational agenda (formative as well as summative determination), to define new research problems, and to alter the understanding of certain language occurrence.

For classroom domain, when learners react to a question, gives comments, or attempt to give a new word or structure during the process of teaching and learning, subconsciously the teacher also

makes assessment of the learners' performance. As Ketabi & Ketabi [4], pointed out assessment is procedure aims to assess learners (such as tests, quizzes, interviews, observation, and self-assessments). Thus, it can be said that teachers are expected to assess their students in each stage of learning.

Different from assessment, testing is perceived as a kind of assessment in which technically correlated to certain timing and defined instructions [6]. In another words, when a teacher conducts a test the instrumental questions must be designed carefully and it is administered in certain period of time, mostly at the end course program to assess the students' competence of the material.

A. Formal and Informal Assessment

Based on its classification, assessment is divided into informal and formal assessment, as well as summative and formative assessment. Ketabi & Ketabi [4], state that formal assessment is a kind of assessment that calculated and meant to provide information regards to students' accomplishment on prearranged times. Brown defined formal assessments as drills or series of actions in which determined to resurrect the current knowledge or skill of learners. Further, it is stated all tests are included in formal assessments. For instance learners' journal or learners' portfolio of material is defined as a formal assessment in which known as the achievement on particular course goals, but it is difficult to appoint these two procedures as "test" [7], [8]. Otherwise, informal assessment is possible to have a number of forms which includes incidental unplanned remarks and replies, as well as coaching and unprepared response to the students (Brown), such as giving compliment to students performance. Bottge et al., [9], mention the principal objective of informal assessment is not only to accumulate learners' scores, but rather then to collect information regards to learners' present knowledge. It can be inferred that during the informal assessment the students feel no pressure or discomfort, contradictory when they are facing formal assessment or test. As a matter of fact, reliable source for getting information about students' competence is not only gained from formal tests, but information from every day observation in class with less pressure condition can also provide reliable insight to assess students' performance.

B. Summative and Formative Assessment

Another classification of assessment is summative assessment which evaluates what the students have learned

during a course. As its name suggests, this summative assessment normally conducted at the final semester. This assessment aims to provide information regards to course objectives that have been achieved by learners, still this assessment lacks of feedback or any counsel uses to enhance learners' performance. Besides, this kind of assessment sometimes makes students stressful that they have to learn and memorize all the material of the whole semester.

Another assessment calls formative assessment is considered as ongoing process of evaluation and feedback within the classroom situation which eventually will aim at helping a better learning. This so called ongoing assessment is perceived as a good way to help students because teacher can identify the students' lacks and weak points and can immediately provide correct feedback during their interaction [2]. That way, students can directly analyze their lacks and learn from the correction given by the teacher. In other words, the aim of formative assessment is to modify teaching activities with the obvious intention to improve learning process and results.

C.   Assessment Strategies

Various assessment strategies that possibly used in classroom setting adopted from online teaching resources [10], they are: 1) Classroom Presentation. A classroom presentation involves learners' abilities to express their ideas, choose and deliver their knowledge and/or things they have learned; 2) Essays. An essay is learners' writing abilities in developing responses to questions, topics, or concise expressions, and providing arguments. In essay teachers are enabled to evaluate learners' comprehension in analyzing as well as in synthesizing particular facts or information. 3) Observation. An observation is systematic procedures which aim to viewing and recording learners' actions, so teachers or instructors are possible to assemble programming and instruction conclusion. This observation gives evidences or information on learners' weakness and strengths, attitude, interest, and learning styles; 4) Performance Tasks. In this teaching resources, learners are allowed to make, to carry out, or to provide works concern with real world problems or situation. It can be utilized to evaluate learners' competence, and give information and students outcomes; 5) Question and Anwers. In this approach, the teacher delivers some questions, and learners or students are expected to respond orally/verbally. This approach assists teacher to provide

information whether learners comprehended the materials that are being, or have been delivered, and it also assists learners to expand their thinking, raise ideas, and resolve ideas or problems; 6) Quizzes, tests, and examinations. These kind of assessments need learners' responds (verbally or in writing) to perform their current knowledge or their skills.

These strategies of assessment vary on its implementation based on what course subject is taught and what language skills are being evaluated.

Needs Analysis

The term needs are refer to intends, requires, requests, expectation, barriers, and deficiencies. It implies that needs have objective to be identified, analyzed, and fulfilled. In foreign language leaning, particularly English in this case, needs may refer to language skills which are necessary for students to master in order to engage in English community [11].

Need analysis (also calls needs assessment) has an important role in designing and executing any course of language. It contains instructions or procedures to gather all information regard to students needs for their course. This needs analysis was first implemented in teaching and learning language by means of English for Specific Purposes (ESP), then it is also implemented in general English courses [12]. Iwai et al., defines the term of needs analysis mostly appoint to activities of collecting information which will be used as the principle for constructing a syllabus or curriculum with aim to fulfill the needs of a particular groups or students.

Further, Zoller, [13] defines needs analysis as a systematic strategies to find out the current knowledge, competency, readability, or manner of particular individual or group participating in a certain subject. It is designed to gain prominent issues or problems encounter by any individual or group in order to construct successful educational system. A need analysis offers a method to encounter things have been learn as well as the possible learning gaps remain. It can be simplified in other words that needs analysis means an information gained from students about what they need to fill the gap between their current state and some desired state. From that information the teachers can plan better and appropriate actions to improve students' language performance.

An effective language program is developed by identifying the students' needs and interests [11]. It is imperative that a needs analysis is carried out as soon as possible at the beginning of a course in order to ease the teachers determine what can be done regarding

the students' desires. Many aspects of language learning can be analyzed through needs analysis such as course material, preferred skills, method of teaching, and assessment.

Language programs carry out need analysis for the same goals. The need analysis is established so learners have changes to examine their level of knowledge, skills, readability, ideas, learning habits, and their preference [9], [14]. With the need analysis in hand, the teacher may be able to examine and portray the existing situation, elucidate how the program will meet the learners' needs, and depict the expected effects of the program. Thus, with needs analysis, teachers aware whether they are successfully managed the class with the expected results or not. It also can determine the next steps needed for the class.

McCawleymentions that even the objectives of needs assessment are alike, but the aims of needs analysis are differs, thus it will effects the approach of how the project conducted. Richards mention several aims of needs analysis in language teaching such as; 1) to determine the needs of language skill on student needs, in order to carry out a certain role, like sales manager, tour guide, or university students; 2) to assist on determining the current course sufficiently meet the needs of potential students; 3) to specify learners needs that mostly require in learning of certain language skills; 4) to recognize the shift of direction that individuals in a reference group sense is important; 5) to recognize the gap between what learners are capable to do and what they necessary to do; 6) to gather information regards the students' experiencing on particular issues.

Needs analysis create to establish a better knowledge in order to make better instruction. A need analysis generally organizes for specific group, institution, or business to rectify the effectiveness or productivity of the individual or cluster associate with its mission. At time when a need analysis is established in the name of groups of people (not for a specific group of people), the aims then tend to focus on what are necessaries to enhance the situation for the individual by switching the knowledge, attitudes, and also situation (McCawley, 2009, p.5). the purpose of a needs analysis is required for the target population, not simply based on the information regards to their existing knowledge, or skills, however it also demand an investigation onto group's perceived accomplishment, priorities and their alternatives

Procedures for collecting information during a need analysis possibly provided from interview, self-rating, observations, questionnaires, meeting, the samples of learner languages,

assignment analysis, case studies, and any analysis of available information

Result

The first session in questionnaire is aimed to gain brief information about students' background in English and the response shows that among 18 respondents there is only 1 person who took English course outside. Related to students' perception on their English class, 6 questions with yes-no answer are provided and a column of 'frequency' where the respondent can specify their answer with 'always', 'sometimes', 'often', 'seldom', and 'never'. From the questions, 6 of them considered 'sometimes' their class is enjoyable, their teacher is interactive, and they fully understand the material explained by the teacher. Furthermore, 8 of them said that they 'always' like learning English. Among all of the respondents, 5 did not specify their answer on 'frequency' column.

Move to the information on how they need to be given correction, it is shown in following table:

Table 1. How students need to be corrected

Parameters	Strongly agree	Agree	Disagree	Strongly disagree
1. I prefer teacher correct me during the teaching-learning process.	11%	78%	11%	-
2. I prefer teacher correct me at the end of the meeting.	27%	56%	11%	6%
3. Use feedback from teacher to improve your work.	50%	50%	-	-
4. Use feedback from pair to improve your work.	33%	56%	11%	-

From the answered questionnaire, 14 respondents agree and 2 *strongly agree* that correction from teacher during the teaching and learning process is needed, while 2 respondents *disagree*. Compared to the other parameter which stated that teacher's correction at the end of meeting is preferred, 10 respondents *agree* and another 5 *strongly agree*. On the other hand, 2 respondents *disagree* and only 1

of them claimed himself *strongly disagree*. In relation to the teacher's feedback or correction to the improvement of students' work, 9 respondents are *agree* and 9 others are *strongly agree* to implement teacher's feedback to enhance their work. While in the term of using feedback from pair or friend to improve students' work, there were 10 respondents who *agree*, 6 are *strongly agree*, and 2 *disagree*. The percentage is gained from the number of answered divided the total number of respondents and multiply a hundred percent.

Another question provided is aimed at finding out type of test and question in each skill they prefer to have in order to assess what they have learned in material given. See table below:

Table 2. Types of tests students prefer

Types of tests	Yes	No
1. End-of-chapter test	22%	78%
2. Quiz	44%	56%
3. Homework	34%	66%

From the questionnaire distributed, 9 respondents prefer 'end-of-chapter test', 18 of them chose 'quiz', and 14 of the respondents prefer 'homework'. In addition, the researcher asked them to choose types of question they prefer to have in each of English skills. Most of them prefer to have 'objective test' for listening and reading skill, 'essay test' for writing skill, 'true-false' and 'matching' for listening and reading skill, and 'performance test' both in group or individual, 'classroom discussion', and 'role playing' for speaking skill. It represented in below table.

Table 3. Types of question preferred in each skill

Types of question	Listening	Speaking	Reading	Writing
1. Objective	45%	-	75%	9%
2. Essay	13%	13%	29%	85%
3. True False	57%	-	48%	9%
4. Matching	35%	-	63%	13%
5. Performance (presentation)				
○ Group	10%	93%	11%	11%
○ Individual	17%	36%	16%	22%
6. Classroom discussion	10%	68%	5%	11%
7. Role playing	12%	87%	16%	5%

Other than the checklist question above, objective question is addressed to them also associate with the teacher's feedback. The question and the percentage are shown in table below.

Table 4 Checklist Question

Question	Yes, fully	Yes, partly	No	Sometimes
Are your tasks discussed with you?	57%	33%	4%	4%

The result shows that 10 respondents claimed their tasks are fully discussed with them, 6 respondents said their tasks are partly discussed with them, and 1 respondent said that his tasks are not discussed with him. Other related questions are indicated in below table.

Table 5 Checklist Question

Question	Yes	No
Does your teacher give feedback on your task?	85%	15%
Is the question helpful?	92%	8%

From the question in the table above, 15 of the respondents claimed that the teacher gives feedback on their task and 17 of them confirmed that the feedback is helpful. However, there were two respondents who said that the teacher does not give feedback but they said the feedback is useful.

Still related to the previous questions, the students are asked to elaborate in what way the teacher's feedback help them. Their answers are varied. Some of the respondents said that the teacher's feedback gives them solution and suggestion. Their mistakes are being corrected with the right answer and followed by more clear explanation so that they are able to understand their mistake and they can improve their performance to be much better for the next task, for example they can improve their grammar or pronunciation. Furthermore, they can get addition information of the knowledge. However, there were three respondents who did not give answer at all, and 5 of them only said 'yes' which is not the answer that I expected.

The last session provided to the students is open questions related to the follow-up activity in teaching and learning process. Most of them claimed that at the end of the meeting, teacher always requests whether they understand the material or not. And they confessed sometimes they get confused with the material when the teacher does not give feedback once they bewildered. They need

teacher to help them by giving more clear examples and of course the feedback itself, and some of them prefer to have face-to-face consultation.

Last but not the least, the students are given review questions about the questionnaire distributed to them which was adopted from Richards. The students are asked to answer part 'The types of information asked for' and 'how the question are worded' and the answer of the questions will be elaborate more in the analysis session below.

Discussion

From the report above, the first thing to analyze it the first session of the questionnaire. From their answer, it can be pictured that the students like learning English, because if they do not, they would not survive until sixth semester. They claimed that the class is sometimes enjoyable, and so is the material. They have interactive teacher which assumes that it is helpful to them to be motivated in learning English because they are asked to participate in the English teaching and learning activities which is consider as foreign language for them. Since the teacher is not native speaker, there is a tendency of not using English all the time in the classroom. This is also quite helpful for some students who have limited language proficiency.

For the next session of questionnaire, if the respondents' answer is narrowed into 'strongly agree' and 'agree' into one category which is 'agree', it can be said that 89% of respondents preferred to be corrected by the teacher during the teaching-learning process than to be corrected at the end of the meeting which is only 6% in different. However, 27% of the respondents strongly agree that the teacher give correction at the end of the meeting compared to the previous parameter which is 11%. Here it can be assumed that students need to have correction from the teacher on their English proficiency and performance at the end of every meeting.

Furthermore, the next parameters of the questionnaire which allows respondents to choose teacher's feedback or feedback from pair is preferred, the result shows that 50% of the respondents tends to prefer teacher's feedback instead of the pairs to improve their works which is 33%. Teacher offers feedback to students, at the same time students are promoted and expected to assess the services they gained regard to the quality and appropriateness [15]. In this case teacher expects students' engagement throughout teaching and learning activities, and this is the time for teacher to assess on to what extent students have learned the knowledge and use them. Teacher also gives a chance for students to give feedback on each other's works

or opinion so that teacher can measure students understanding of the material. And in case there still incomplete opinion from students, it is the teacher's turn to give feedback to the entire class, and from these students can figure out what their lack is and they may improve it.

About the type of test, 94% of the respondents prefer to have quiz compared to end-of-chapter test or homework. This strongly suggests as what formative assessment's objective which is to help a better learning [4], because from quizzes students can directly learn from feedbacks given by teachers or their peers and it can minimize stress and pressure of the students as what they feel when they have end-of-chapter tests.

On the parameter of the type of question preferred by the students, it shows that 'objective' is frequently chosen in reading skill, 'essay' is absolutely in writing skill, 'true-false' and 'matching' in reading skill, and the rests which are 'performance', 'classroom discussion', and 'role playing' in speaking skill. Particularly in performance, 94% of the respondents prefer to have group performance. This is suitable with the condition of teaching-learning nowadays which is also stated by Irons and Elkington [2], about metacognition and authentic assessment in which learners are merely memorize inputs, meanwhile teachers' part is to provide thinking skills to learners that needed to learn new concept. Instead of applying traditional assessment which is end-of-unit test as the body of knowledge and skill, teachers tend to use authentic assessment which emphasize on the real context and more practical. It requires students to perform meaningful test in real world.

The answers of the respondents on the open questionnaire give a description that teacher should know what students have learned through the explanation of a material. How teacher can assess accurately and fairly is an important thing in the English teaching and learning strategies. When students' understanding is the main purpose, the process of assessment is more than just evaluation of an end-of-chapter test. That is why, students have to be given chance to demonstrate their capacity of the knowledge and once they get confused, teacher has obligation to bring them to the clarity. Here is also the chance for the teacher to assess the students' knowledge they already have. This kind of strategy is known as KWL assessment strategy which is assessment used by teacher to assess what students 'know', 'wish to know', and 'have learned' about a particular topic.

Conclusion

From the report and analysis above, and related to the purpose of doing needs analysis can be sum up that what learners' needs are

to be given opportunity to get active involvement in the process of teaching and learning English as a foreign language, such as to participate contributing idea and to give feedback on other students before they get conclusive feedback from the teacher.

Thus, the appropriate assessment strategies which is mostly appropriate with the students are of course performance task assessment and quiz, and KWL assessment strategy which is to assess what students 'know', 'wish to know', and 'have learned' is also recommended. Teacher should set clear criteria for what should students do in each performance so that they know what is regarded as successful work. Those criteria should be known by the all students and rubric assessment is very helpful in this case, because students already have their own picture and they can check list on it.

Once all those assessment strategies applied well in teaching and learning process, students will eventually learn more about the material they are studying from their assessment and will improve themselves to be much better in learning and their performance in English.

Refference

[1]   M. Zlatović, I. Balaban, and D. Kermek, "Using online assessments to stimulate learning strategies and achievement of learning goals," *Comput. Educ.*, vol. 91, pp. 32–45, 2015.

[2]   A. Irons and S. Elkington, *Enhancing learning through formative assessment and feedback*. Routledge, 2021.

[3]   J. B. Kahle and W. Boone, "Strategies to improve student science learning: Implications for science teacher education," *J. Sci. Teacher Educ.*, vol. 11, no. 2, pp. 93–107, 2000.

[4]   S. Ketabi and S. Ketabi, "Classroom and formative assessment in second/foreign language teaching and learning," *Theory Pract. Lang. Stud.*, vol. 4, no. 2, pp. 435–440, 2014, doi: 10.4304/tpls.4.2.435-440.

[5]   N. Arber and J. Hopkin, "Assessment for learning," *Teach. Geogr.*, vol. 28, no. 1, pp. 42–47, 2003, doi: 10.4324/9780203015117-33.

[6]   M. S.-J. Gregory and J. M. Lodge, "Academic workload: the silent barrier to the implementation of technology-enhanced learning strategies in higher education," *Distance Educ.*, vol. 36, no. 2, pp. 210–230, 2015.

[7]   L. Pombo, M. J. Loureiro, and A. Moreira, "Assessing collaborative work in a higher education blended learning context: Strategies and students' perceptions," *EMI. Educ. Media Int.*, vol. 47, no. 3, pp. 217–229, 2010.

[8]   K. Struyven, F. Dochy, and S. Janssens, "Students' perceptions about evaluation and assessment in higher education: A review," *Assess. Eval. High. Educ.*, vol. 30, no. 4, pp. 325–341, 2005.

[9]   B. A. Bottge, X. Ma, L. J. Gassaway, M. Jones, and M. Gravil, "Effects of formative assessment strategies on the fractions computation skills of students with disabilities," *Remedial Spec. Educ.*, vol. 42, no. 5, pp. 279–289, 2021.

[10]   L. Santos and S. Semana, "Developing mathematics written communication through expository writing supported by assessment strategies," *Educ. Stud. Math.*, vol. 88, no. 1, pp. 65–87, 2015.

[11]   N. Maruf, E. Desembrianita, and D. H. Husain, "Identifying ESP Course Materials for Students of Magister Management: A Needs Analysis," *Budapest Int. Res. Critics Inst. Humanit. Soc. Sci.*, vol. 4, no. 3, pp. 5773–5788, 2021.

[12]   F. Handayani and W. Lestari, "Need Analysis in The Development of HOTS-Oriented Study Project Assesment Instrument in Android-Based Science Learning," vol. 8, no. 1, pp. 57–64, 2019.

[13]   U. Zoller, "Science education for global sustainability: What is necessary for teaching, learning, and assessment strategies?," *Journal of Chemical Education*, vol. 89, no. 3. ACS Publications, pp. 297–300, 2012.

[14]   P.-N. Chou, C.-C. Chang, and C.-H. Lin, "BYOD or not: A comparison of two assessment strategies for student learning," *Comput. Human Behav.*, vol. 74, pp. 63–71, 2017.

[15]   E. G. Offerdahl and D. Tomanek, "Changes in instructors' assessment thinking related to experimentation with new strategies," *Assess. Eval. High. Educ.*, vol. 36, no. 7, pp. 781–795, 2011.

Challenges and Problems Adult Learning Community Paradigm in Era 5.0

Nur Ida[1]

Introduction

For adults, the creation of a conducive learning atmosphere is a facility that encourages them to try new behaviors, dare to be different, can act with new attitudes and be willing to try out the new knowledge they have acquired. Although anything new carries the risk of making mistakes, mistakes, and mistakes themselves are a natural part of learning. In the end, adults want to know what it means to be in the study group. For adults there is a tendency to want to know their strengths and weaknesses.

The national education system is the entire component that is interrelated in an integrated manner to achieve the goals of national education. In addition to having characteristics, national education also has a basis, function and purpose (Law No. 20 of 2003). The basis of national education is Pancasila and the 1945 Constitution which in principle national education has three functions, namely: 1) developing capabilities; 2) shaping dignified character and civilization; and 3) educating the nation. By knowing more deeply the characteristics of the national education system, we will be able to direct how adult education (andragogy) differs from children's education (pedagogy). Today in Indonesia there are many educators who are unable to understand the difference between adult education and children's education.

The inability of educators to understand these differences has resulted in many educators treating andragogy as pedagogy. In principle, adult education is the most important thing that needs to be considered in education carry out adult education because the principles of adults consist of learning laws, setting goals, choosing subject matter, developing attitudes, ideals, interest in teaching knowledge, developing knowledge, problem solving abilities. While the principle of children's education is to take place in the form of identification and imitation where the atmosphere is much more rigid than adults.

The explanation of the education of adults (andragogy) and children (pedagogy) is intended to provide knowledge about what

---

[1] Faculty of Teacher Training and Education University of Muhammadiyah Parepare, nuridapls@yahoo.co.id

needs to be considered in order to carry out the education of adults and children well. Education knows no age and can be obtained anywhere. Therefore, we must always motivate people who still have a traditional mindset, both those who live in urban and rural areas to always learn and keep up with the times.

Adult education as a process in which people who are no longer in school in a formal sense can continue to participate in organized learning activities in order to develop knowledge, interests, talents and skills that will equip them to carry out roles in society more creatively or critically for use. and utilized by them, their families and society in a broad sense.

Adult education in community development is focused on the needs of human life who always want to raise their dignity. Education and development are solely human hopes to be able to improve human life and life in the context of their ecosphere which provides hope for the same ultimate goal, because education and development efforts need to go hand in hand, support each other and provide input to each other.

Humans are born with a number of needs that must be met and potential that must be developed. In an effort to meet these needs, humans interact with their environment. Interaction with the environment will cause humans to develop their abilities through the learning process. The stronger the motive as an effort to fulfill that need, the stronger the learning process that occurs and in turn, the higher the learning outcomes that can be achieved.

Discussion
The Adult Paradigm

The concept of adult education or adult education is a term that has developed among universities since the 1960s – especially for the field of education and development studies and is also called andragogy (the opposite of pedagogy or the science of "teaching children"), developed with the contribution of Paulo Freire's thoughts. Andragogy comes from the ancient Greek: "aner", with the root words, which means adult, and agogus which means to guide or guide. Andragogy can literally be interpreted as the science and art of teaching adults. However, because adults are independent individuals who are able to direct themselves, the most important thing in andragogy in the learning interaction process is independent learning activities that rely on the learning community itself and are not the activities of a teacher teaching something (Learner Centered Training/Teaching).

In very mature people are faced with how to resolve the tension between wholeness and despair. Wholeness includes an ongoing appreciation of the past. Now and in the future. Despair indicates not the meaning of life that has been found in trust in oneself and in others. The discovery of the term andragogy starting from 1833, by Alexander Kapp, Kapp explained andragogy by using the term Adult Education, especially in explaining the educational theory that was born by the philosopher Plato. The following is a detailed description of the history of the development of the use of the term andragogy from year to year as a new educational theory in addition to pedagogical theory:

A. In the 18th century circa 1833, Alexander Kapp used the term Adult Education to describe the theory of education that was developed and philosophers like Plato were born. Then Gernan Enchevort made a study of the origin of the use of the term andragogy.

B. In the 19th century to be precise in 1919, Adam Smith gave an argument about education for adults "education is also not only for children, but education is also for adults".

C. In 1921, Eugar Rosenstock stated that adult education uses special teachers, special methods and special philosophies. Edward Lindeman published the book "Meaning Of Adult Education" which basically contains: 1) Approach to adult education starting from the situation; 2) The main source of adult education is the experience of the learner.

The presence of andragogy is a development of the concept of pedagogy, namely the science or art of teaching children, where when teaching practice will be applied to adults, it is thought that it must be different from teaching children, so that experts develop a theory of teaching adults called andragogy.

Knowles put forward several adult assumptions which include; 1) Self-concept; where adults already have a mature self-concept and are not dependent on others, this has implications in the educational process; 2) Experience, every adult has a different experience from the experience of other adults, so that adult training participants can be used as learning resources and the emphasis in the learning process is practical; 3) Readiness to learn; Adults will learn if what is learned is in accordance with the social role it carries, therefore the learning process should be structured based on social roles; 4) Orientation towards learning; Adults are willing to learn when they can improve their problem-solving skills. The implication is that in the teaching and learning process, the facilitator acts as a provider of assistance to the participants.

Adult Learning

Adult learning is essentially an activity that is carried out consciously to produce a change, involving knowledge, skills, attitudes and values. Education is concerned with the broad function of maintaining and improving the life of a society, especially bringing in a new society (the younger generation) to fulfill their obligations and responsibilities in society.

Learning experiences needed by adults, both men and women, according to their respective fields of expertise and abilities. Thus, it can have a positive impact on the success of adult learning which can be seen in changes in behavior towards the achievement of adequate abilities and skills. every individual who deals with other individuals will be able to learn together with full confidence.

One of the principles of adult learning is learning because of a need. This is done to realize increased involvement (participation) in the social activities of each individual concerned. What the participants learn, not what the teacher teaches. That is, the end result is what adults get from a training, not what the teacher or trainer does in the training.

Challenges and Problems of Adults in Society 5.0

An understanding of the development of the psychological condition of adults certainly has an important meaning for educators or facilitators in dealing with adults as students. The development of such an understanding of the psychological condition of adults grows in a theory known as andragogy. Andragogy as a science has broad and deep dimensions of learning theory and teaching methods. In short, this theory provides essential basic support for adult learning activities. Therefore, adult education or learning efforts require a special approach and must have a handle strong will the concept of theory based on assumptions or understanding of adults as students.

Educational activities either through school or out of school have a variety of areas and activities. Adult education, especially non-formal community education, most of the students or participants are adults, or at least youth or youth. Therefore, educational activities require a separate approach. By using the theory of andragogy, adult learning activities or efforts within the framework of development or realization of the achievement of lifelong educational goals can be obtained with the support of theoretical concepts or the use of accountable technology.

One of the problems in the sense of andragogy is his view which states that the purpose of education is to transmit knowledge. But on the other hand Changes that occur in the 5.0 society era, such

as innovations in technology, population mobilization, changes in the economic system, and the like are happening so fast. In this condition, the knowledge that a person acquires when he is 21 years old will become obsolete when he is 40 years old. If this is the case, then education as a process of transmitting knowledge is not in accordance with the modern needs of society 5.0

Concslusion

One important aspect in education today that needs attention is the concept of education for adults. We don't always talk and review about the education of school students who are relatively young. The reality on the ground is that not a few adults must receive education, both informal and non-formal, for example education in the form of skills, courses, upgrading and so on. The problem that often arises is how to use tips and strategies to teach adults who are not in school.

Andragogy is the science or art of guiding adults to learn. Learning for adults is certainly very different from learning for children (pedagogy). Therefore, for the success of this andragogy approach, a facilitator/widyaiswara must understand various things regarding assumptions, problems, principles, and the atmosphere of adult learning, as well as attitudes that need to be developed by a facilitator. The entire description of the andragogy approach can be done by any facilitator, it just takes the desire to open up, want to try, and keep practicing.

Building human development can occur if serious attention is given to adult education, because this learning process must developed rapidly in accordance with the pace of national development. Reviews about education in schools have been very often discussed with various policies set by the government, but in the field, not a few adults must receive education either through education through school or out-of-school education, for example education in the form of skills, courses. courses, upgrading and so on.

To teach adults through adult education can be done with various methods and strategies that are needed. In this case, adults as students in learning activities cannot be treated like ordinary students who are sitting in traditional schools. Therefore, it must be understood that, adults who grow up as individuals and have mature self-concepts move from dependence as happened in childhood towards independence or self-direction.

References

[1]   I. Abdulhak, *Strategi Pembelajaran Pendidikan Luar Sekolah*. Bandung: UPI Press. 2000.

[2]   P. H. Coombs, (dalam Joesoef, 1986:50). *The World Educational Crisis: a Systems Approach*, New York: Oxford University Press. 1986.

[3]   J. Hoxeng, dkk. (1975). *Nonformal Education in Equador*: *An Approach To Non formal Education: Massachusetts. Center For International Education. School of Education. University of Massachusetts.* 1975.

[4]   M. Kamil, *Pendidikan Non Formal Sebuah Pembelajaran dari Kominkan Jepang,* Bandung: Alfabeta. 2011.

[5]   M. Knowles, *The Modern Practice of Adult Education*. Chicago: Fpllett Publishing Company. 1980.

[6]   P. J. Bouman, (dalam Kamil, 2012). "Andragogi". *Jurnal Pendidikan Luar Sekolah Universitas Pendidikan Indonesia,* 2012.(Online), (http://file.upi.edu/direktori/fip/jur._pend._luar_sekolah/1 96111091987031001mustofa_kamil/Andragogi.pdf, diakses pada17 April 2017), 2012

[7]   A. Rogers, *Teaching Adults.* Open University Press, Milton Keynote. 1994

[8]   R. Arsmstrong, C. T. Davies, and M. V. Doyle, "Case Studies in Overseas Community Devevelopment"., Vol.1. *Dept.of Adult Education, University of Manchester,* 1975

[9]   Eda Lolo Allo. "Pengembangan Model Pembelajaran Berbasis Teknologi Informasi dan Hiperteks Pada Materi Ikatan Kimia"*. Jurnal Chemica* Vol. 1 2 Nomor 1 Juni 201 1 , 22 – 27, 2011.

Transnational Coalition Building and Global Feminist Solidarity in Millennial Society 5.0 Era

Nurul Azizah[1]

Introduction

These political concerns invite us to decolonize our feminist view of the world, which means adopting the feminist (world) view of the United States/West in global discourse[1], [2]. We are particularly challenged to dismantle the hegemonic discourses of race, class, gender, and nation that frame our perceptions of feminism and seek to define what may be a feminist agenda that includes women. While "global fraternity" cannot be taken for granted, there is still a certainty that coalition building across genders, races, classes, nationalities, and sexualities must occur if we are to triumph over the various oppressions that still impact our world. In this chapter, I will explore how global feminism has been articulated and how we can begin to redefine it in a more meaningful and effective way that moves us beyond "exotic fraternities" and toward an equal division of global power. I examined the production of women's culture and social protests from different regions. I reflected on the global currents of culture, corporate globalization, warfare, sexual violence, and feminist protests after the struggles of the early twenty-first century. I also explain the various points of trouble that may arise if feminists fail to include a (world) view of decolonization and provide a useful model to follow when decolonization occurs [3].

Analyzing cultural products such as film, art, popular culture, and performative protest, I further argue that a decolonized (world) feminist view is essential to U.S. feminist engagement with transnational coalition building and global feminist solidarity. These case studies demonstrate the ongoing need for a complex understanding of our globalized world and its impact on our lives, as well as for the planetary women's movement made up of women (and their allies) willing to join in the fight against oppression. While this argument is not new, it keeps repeating itself, especially at a time when imperialist dramas in the past seem to be replayed in perpetual circles.

[1] Postgraduate of Universitas Ibrahimy Situbondo,
nurulazizah@ibrahimy.ac.id

Discussion

To achieve the goals of global feminism, it may be helpful to map women's histories and experiences and place them, as Shohat argues, "in dialogical relationships within, between, and between cultures, ethnicities, and nations"[3]. In transnational acts of exchange, such discourses face the challenge for us to move beyond exotic constructs and uncover the potential of "relational feminism," which "transcends an additive approach that only makes women in the world neighborhoods and neatly filled, paraded in a United Nations-style 'Family of Nations' contest in which every ethnically marked feminist speaks in turn, wearing a national costume"[4], [5]. In other words, what does it mean for global feminists to cross boundaries and bounds in our critique? Moreover, what does it mean to eliminate U.S.-based feminism, which is often a normative means of resistance to gender and sexual oppression?

In order to evoke the famous image of Barbara Kruger, the female body as a battleground reappeared in the field of politics and global militarism. However, some mainstream U.S. feminists have not fully incorporated the discourse of women in the global South who are most affected by policies enacted in this area, nor did they develop "bizarre feminism," as Enloe suggested, to inquire about international politics in a way that could reinforce global feminism and "make the global workings of unequal forces evident" (Enloe 2004, 305). Global war and terror require us to be curious about each other's lives and the effects of global policies on our bodies, not to understand our "enemies" better but to form future alliances. An Ensure-backed "bizarre feminism" is exemplified in the work of Afghan-born Canadian journalist Nelofer Pazira created in collaboration with Iranian filmmaker Mohsen Makhmalbaf, who debuted in 2001 at the Cannes Film Festival shortly before the events of September 11 and the subsequent US-led war in Afghanistan. Unfortunately, most commentators see and celebrate the film through veneers from the barbaric Orientalist East and not through antiwar sensibilities, which is the underlying premise. The film is based on Pazira's real story of leaving Canada and returning to Afghanistan to find her childhood friend referred to in the narrative as her sister. The latter wrote her suicide note in 1998, in desperation after being wounded by a landmine amid the density of the oppressive Taliban regime blurring the distinction between "nonfiction" and "fiction" through her narration, which weaves storytelling with documentary-style reportage. Filmed along the Iran-Afghanistan border, capturing the despair of the war-torn country, witnessed through the journalistic eyes of Pazira, who revisited his homeland and experienced culture

shock. We experienced with Pazira the devastating effects of the war: numerous landmines littering the landscape and injuring civilians; the refusal of education to young girls and indoctrination of boys, who are being trained to link Islam with militarism; severe famine and lack of drinking water that had developed during the continuous warfare; violation of the law and border patrol; and the ubiquitous, enforced burqa that at first "suffocates" and the myriad of faceless women in the film, then give her "security" and comfort from the many dangers she faces.

Even under complete protection, the burqa-clad women oppose this forced invisibility by asserting their individuality and beauty throughout the film. They apply lipstick, paint their nails, wear noisy bracelets, advocate for their children's school, chant funeral canyons or sing wedding songs, and perform colorful burqas, which Pazira calls beautiful in her film commentary. In this subtle depiction, we see Afghan women manifesting resistance by insisting on their right to be seen, even when we cannot see their faces. By globalizing Rosemarie Garland Thomson's feminist disability theory, we can conclude that war makes the field of orderly gender, nation, and capable bodies meaningless. This lack of meaning, recognized in Western contexts as "the chaos of bodily variation," reflects only the chaos of war (Thomson 1997, 24). Such a nuisance extends further to the strange subtext, as the man desperately wears feminine prosthetic legs to be able-bodied or, in another scene, when a person attempts to escape the threat, he considers a male subject by cross-dressing in a burqa when he encounters a border patrol.

Re-Fashioning The Body Politic

The subaltern figure can be silenced by the national, international, and patriarchal forces surrounding him; however, it is also subsedible in a "universal" gender representation that recognizes only the femininity of the Western-based white heterosexual middle class as normative. She was again silenced by feminism that perpetuated the imperialist agenda of the state. This has prompted counternarratives from Middle Eastern, Muslim, and Islamic women who have reclaimed the hijab, chador, and burqa as instruments of feminist liberation, especially after Islamophobia inspired by the global "war on terror" and anti-immigration policies in European countries such as Britain, France, and the Netherlands, which have adopted measures to limit the wearing of "veils." Muslim and Islamic feminists thus developed what Martini called "double criticism," which "allows them to engage with and criticize various

individuals, institutions, and systems that restrict and oppress them while ensuring that they are not caught up in their own rhetoric" [6].

This challenge to avoid being "caught up in their rhetoric" was one that artist Shirin Neshat had faced a decade earlier in his visualization of Muslim women in headscarves[7]. An Iranian artist based in New York City, Neshat returned to his native country in 1990, after fifteen years in exile, and created a series of provocative photographs (1993–97) in response to the postrevolutionary and postwar changes he witnessed there. The photographs posit the female body as a conduit for cultural drama and national struggle by creating leitmotifs of traditional clothing (chador, which refers to Islamic culture), pistols (symbols of war and revolution), and gender and the phenomenon of Terrorism (symbols of local feminist political consciousness). In figure 1. Women Terrorists in Indonesia[8]

Figure 1. Female Terrorist arrested by Police in Indonesia

Contemporary histories and scenarios like this politicize the body of veiled women and invite us to counter Western allusions to the Islam of womanhood, reducing Muslim women's subject to stereotypes and often silencing their revolutionary voices. This silencing was captured during the Egyptian revolution in early 2011, in which essential women activists such as Asmaa Mahfouz, who used her Facebook video blog to urge millions of its citizens to take to the streets, were ignored in both the Big Media and Western

feminist narratives. While the U.S. media vigorously championed the importance of social media in the "Arab Spring" uprising, they focused on male protesters, although Mahfouz helped spark a spark in Egypt. Cruise, Weinberg and Eubank argue that "the struggle of [Egyptian women] cannot be explained through Orientalist tropes that reduce Arab women to passive victims of culture, religion or Islam. Instead, they are active participants in grassroots people-based struggles against poverty and state corruption, rigged elections, repression, torture, and police brutality" [7], [9].

Conclusion

The examples of protest and cultural production presented in this chapter illustrate that exoticism, war, sexual violence, global capitalism, the battle of xenophobia, and the struggle for the environment are sites of continuous power and control and that feminist resistance remains a worthy alternative to this ideology of domination. However, as Lorde reminds us, "[Unless] one lives and loves in the trenches, it is difficult to remember that the war against dehumanization is relentless" [10]. Our resistance must remain as this war continues. To loosely quote Gloria Anzaldua, many of us still bleed at the crossroads of race, class, and gender, the way the third world bleeds when fighting the first world at the border. Our privileged existence as U.S. feminists thus presents obstacles when trying multiracial and international alliances without decolonizing our practices. How do we position ourselves in this millennial struggle?

One of the ways I'm trying to address these concerns is through the tools of our current digital revolution, which has narrowed the distance between us and made our lives more transnational and direct globally. By creating a "digital classroom," my students and I had the opportunity to explore how the personal is global and how we can visualize relational feminism. Despite the prevailing belief that today's millennial students are far more knowledgeable about digital technology than their instructors, I often find the opposite. They are much more in digital communication than we tend to do, but that engagement doesn't necessarily translate into "knowledge." While it may be true that every day our students today are increasingly digital, sending text messages, sending emails, playing games, tweeting, writing blogs, or updating Facebook pages, they often lack a basic critical assessment of the "information" they generate and receive, not to mention a lack of knowledge about the processes by which this information is built through computer technology.

Having studied <html> code and keyboards during the late twentieth century, I have found this early knowledge helpful in teaching students information literacy. However, they can now access a variety of software and hardware scripts without a basic knowledge of computer language skills. At the same time, when I teach students <html> design, they almost always talk about these learned skills in terms of empowerment. Suddenly, the Internet space was less intimidating, and their production of original information allowed their full participation in digital and global processes, an important goal of today's global feminist resistance[3], [5], [11]. In addition to Web design with <html> pages that serve as the base site for building and building radical information, I use digital tools, specifically blogs and Google Maps, to teach global feminist awareness[12]. To counterbalance Google Earth's nefarious ways of enforcing hegemony, literally using surveillance around the world, even in the heavens and seas, in the style of Big Brotherone philosophy I teach students is the power of subversion and refraction of specific tools for feminist articulation. As they Google Map "danger zones," immigrant journeys from women's novels and movies, the transnational flow of women's music, or the connection between the historic Underground Railroad and the "escape routes" of domestic violence, students illuminate the process of border crossings and mobile resistance[10],[13],[14].

By personalizing and globalizing feminism in virtual reality while also maintaining awareness of the power dynamics of digital tools—including the power to exclude, silence, and supervise those without access to technology. We realize the global reach of feminist praxis. However, can this digital space amplify subaltern sound? After all, their problem is not that they can't speak but are "unheard" to repeat. What remains to be seen is how emerging media tools will generate emerging narratives that will move us forward toward decolonizing our (worldly) views. More importantly, given the environmental justice of Ferguson and Reilly, we need to begin exploring alternative technologies that rely less on toxic materials, which pollute our planet, and focus more on community building than capitalist consumption[5], [10], [12], [15]–[18]. Suppose we want to actively engage in each other's struggles and recognize each other beyond "exotic" constructs. In that case, we may eventually realize that it is not "our bodies that are the same" or even the unbridgeable differences that connect or separate us. We are interconnected in global economic networks, cultural streams, travel rhetoric, and relational feminism. Most importantly, we are connected by Steans, who were never meant for sale or conquest and

who now demand a more rigorous and sustained praxis. Contact has already occurred, and the distance is close [4].

References

[1]   B. Pini, R. Moletsane, and M. Mills, "Education and the global rural: Feminist perspectives," *Gender and Education*, vol. 26, no. 5. 2014. doi: 10.1080/09540253.2014.950016.

[2]   M. Carey, M. Jackson, A. Antonello, and J. Rushing, "Glaciers, gender, and science: A feminist glaciology framework for global environmental change research," *Prog Hum Geogr*, vol. 40, no. 6, 2016, doi: 10.1177/0309132515623368.

[3]   J. Elias and A. Roberts, "Feminist Global Political Economies of the Everyday: From Bananas to Bingo," *Globalizations*, vol. 13, no. 6, 2016, doi: 10.1080/14747731.2016.1155797.

[4]   J. Steans, "The private is global: Feminist politics and global political economy," *New Political Economy*, vol. 4, no. 1, 1999, doi: 10.1080/13563469908406388.

[5]   B. Ackerly and J. True, "Back to the future: Feminist theory, activism, and doing feminist research in an age of globalization," *Womens Stud Int Forum*, vol. 33, no. 5, 2010, doi: 10.1016/j.wsif.2010.06.004.

[6]   A. Martini, "Making women terrorists into 'Jihadi brides': an analysis of media narratives on women joining ISIS," *Crit Stud Terror*,   vol.   11,   no.   3,   2018,   doi: 10.1080/17539153.2018.1448204.

[7]   R. S. Cruise, "Enough with the Stereotypes: Representations of Women in Terrorist Organizations," *Soc Sci Q*, vol. 97, no. 1, 2016, doi: 10.1111/ssqu.12250.

[8]   Achievinna Mirza Senathalia, Zaitunah Subhan, and Ida Rosyidah, "Gender Dan Fenomena Terorisme Perempuan," *Kalam: Jurnal Agama dan Sosial Humaniora*, vol. 9, no. 1, 2021, doi: 10.47574/kalam.v9i1.101.

[9]   L. Weinberg and W. L. Eubank, "Italian women terrorists," *Terrorism*,   vol.   9,   no.   3,   1987,   doi: 10.1080/10576108708435630.

[10]   A. Dalton and V. Asal, "Is it ideology or desperation: Why do organizations deploy women in violent terrorist attacks?," *Studies in Conflict and Terrorism*, vol. 34, no. 10, 2011, doi: 10.1080/1057610X.2011.604833.

[11]   R. Tong, "Towards a feminist global bioethics: Addressing women's health concerns worldwide," *Health Care Analysis*, vol. 9, no. 2. 2001. doi: 10.1023/A:1011390521518.

[12]   N. Reilly, "Linking local and global feminist advocacy: Framing

women's rights as human rights in the Republic of Ireland," *Womens Stud Int Forum*, vol. 30, no. 2, 2007, doi: 10.1016/j.wsif.2007.01.004.

[13] D. M. Britton, "The epistemology of the gendered organization," *Gender and Society*, vol. 14, no. 3, pp. 418–434, 2000, doi: 10.1177/089124300014003004.

[14] A. B. Krueger and J. Malečková, "Education, poverty and terrorism: Is there a causal connection?," *Journal of Economic Perspectives*, vol. 17, no. 4. pp. 119–144, Sep. 2003. doi: 10.1257/089533003772034925.

[15] K. E. Ferguson, "Feminist Theory Today," *Annual Review of Political Science*, vol. 20. 2017. doi: 10.1146/annurev-polisci-052715-111648.

[16] A. Chisholm and S. Stachowitsch, "Everyday Matters in Global Private Security Supply Chains: A Feminist Global Political Economy Perspective on Gurkhas in Private Security," *Globalizations*, vol. 13, no. 6, 2016, doi: 10.1080/14747731.2016.1155796.

[17] A. Mezzadri, S. Newman, and S. Stevano, "Feminist global political economies of work and social reproduction," *Rev Int Polit Econ*, 2021, doi: 10.1080/09692290.2021.1957977.

[18] J. Acker, "Hierarchies, jobs, bodies: A Theory of Gendered Organizations," *Gender & Society*, vol. 4, no. 2, pp. 139–158, 1990, doi: 10.1177/089124390004002002.

Sustainable Engineering of Food Industry Liquid Waste Treatment Systems Containing High Organic Load

Nyimas Yanqorita

Introduction

The food industry sector, which includes Indonesia, makes a substantial contribution to the global economy's expansion, which is also accompanied by a rise in population. This industry's effects include excessive water consumption and the production of a lot of industrial wastewater, among other environmental issues. The loss of biodiversity and the accelerated industrialization will have a negative impact on ecosystems. By 2030, a water crisis is anticipated, according to the World Health Organization [1]. All facets of human existence have been impacted by the global shortage and demand for clean water supplies, but the least developed nations and rural people have been most severely affected.

The 2030 Sustainable Development Goals (SDGs) were set as the target year at the UN General Assembly in 2015 [2]–[4]. The community, which included academia, the government, and the corporate sector, was involved in the development of these goals. Ensure Access to and Management of Water and Sanitation (SDG 6, PBB) is Goal 6 of the Sustainable Development Goals of the United Nations [1], [5], [6]. Applications issues in the water treatment process are among the major issues that have become a global setback for present technology [7], [8].

The basic idea behind the formulation of the industrial system problem is connected to sustainable engineering, emphasizing how the industrial system is inextricably linked to the environment in which it is situated. The fact that an industrial system contains inputs and outputs is crucial. Materials obtained from the environment are used as inputs into the system, and the output will be released back into the environment. While excessive industrial system output, which may take the form of waste (liquid, solid, or air), may have a detrimental effect on the environment, excessive material intake (input) will cause a reduction in the supply of materials.

The industrial waste management and processing system serves as the standard in industrial systems for minimizing or lowering the impact of processed products. Process waste water, for instance, requires the use of an adequate wastewater treatment installation system (WWTP). There are still very few industries that

use the WWTP system to process waste water from the food industry, such as when making tofu and tempeh from raw soybean sources. Instead, process waste water is simply thrown into water bodies like ditches, which are still used to feed rivers. Given that the buildup of waste water will be hazardous to both individuals and the environment, this should be a regular issue.

Because of its high organic load (carbohydrates, lipids, proteins, and organic nitrogen), the waste water from the tofu business has properties that are detrimental to life and needs specific treatment. The majority of the organic and protein loads in industrial wastewater treated by the food industry make it the leading polluting contributor to aquatic bodies. Waste water is generated by a variety of food industry processes, including those that process milk, fish, poultry, and beef as well as soybeans (for tofu and tempeh), as well as other agricultural and livestock products [9]–[12]. The pollutant features of waste water from the food industry include changes in concentration of suspended solids (TSS), organic compounds (COD, BOD), fats, oils, nitrogen, and phosphorus, as well as other pollutants. [4], [10], [13]–[15]. The wastewater treatment process likewise primarily removes dissolved and suspended matter, but additional treatment is required to remove nitrogen and phosphorus nutrients.

Water treatment is a challenging technology since varying wastewater has unique chemical compositions and can be treated using a variety of procedures. Wastewater treatment is a biogas energy source that can be recycled by local industry and society. As a result, in order to maintain their effectiveness, wastewater treatment systems frequently require extensive maintenance and upgrades.

Primary processing: Physical methods are used in primary processing, such as coarse filtration and precipitation, to separate solid from non-biodegradable granules. Otherwise, they could build up at the bottom of the WWTP and prevent it from treating the wastewater. Only materials that float or can be deposited by gravity can be reduced by primary treatment. Pollutants in wastewater from the food industry can be found in dissolved and suspended forms, and these forms are unaffected by initial treatment. As a result, biological processes, specifically anaerobic and aerobic processes, are required for secondary processing.

Secondary processing: The biological activity of microorganisms like bacteria and protozoa is used in secondary processing. Biodegradable organic pollutants are consumed as food by microorganisms, who then transform them into carbon dioxide, water, and energy for

growth and reproduction. As a result, the secondary/biological wastewater treatment system for the food industry must be able to give microorganisms the best possible environment in order for them to stabilize biodegradable organic contaminants. The waste is fed as an intake to an anaerobic digester with a predetermined retention period after homogenization and neutralization at pH 7.5 to 8.0. The objective is to remove high organic content by anaerobically degrading complex organics [16].

After the anaerobic phase, the nitrification and denirification processes are carried out with the intention of eliminating the organic N content (Carrera et al., 2004; Lee et al., 2009). With the help of air bubbles in an aeration tank and the anaerobic process (without oxygen), which removes biological organic material, activated sludge is returned to the garbage after secondary treatment. In order to control the amount of energy and oxygen available, management can track dissolved oxygen (DO) and the energy output from blowers. In this stage of the treatment process, monitoring additional water quality metrics like pH, ammonium, nitrate, sediment, and orthophosphate is also crucial.

Processing in anaerobic digesters is anticipated to reduce COD and BOD by over 70%. Hydraulic retention time [HRT] of tofu industrial wastewater is 24 hours, and an organic load rate (OLR) of 4.8 kgCOD m^{-3} d^{-1} is capable of eliminating COD up to 86.41% and producing 7700 mL biogas [17]. It is anticipated that WWTP secondary treatment will be able to remove COD and BOD up to more than 80% and continue the nitrification-denitrification process to remove organic N content up to more than 90% [18]. After the anaerobic phase, the nitrification and denirification processes are carried out with the intention of eliminating the organic N content [19], [20]. With the help of air bubbles in an aeration tank and the anaerobic process (without oxygen), which removes biological organic material, activated sludge is returned to the garbage after secondary treatment. In order to control the amount of energy and oxygen available, management can track dissolved oxygen (DO) and the energy output from blowers. In this stage of the treatment process, monitoring additional water quality metrics like pH, ammonium, nitrate, sediment, and orthophosphate is also crucial. Methane emissions from the anaerobic process can also be measured and recycled within the facility to reduce the impact of greenhouse gases.

Tertiary Treatment: The three methods of disinfection include ozone process, UV light, and chlorination treatment [21].

The above-mentioned process data must be real, thus requiring improvements to processing for continuous efficient

applications. The growth of industrialization now greatly paved the way for the use of technology, this gave birth to the concept of a smart city (Smart City). Smart City is a city that uses digital Internet of things (IoT) technology to improve performance for the welfare of the community. IoT can reduce costs, resources both energy, people and time. The key sectors of a smart city include transportation, energy, health, clean water and waste [22], [23].

Discussion

The rapid growth of the tofu industry in Indonesia is one of the tasks of the government and the community to manage process waste water and provide socialization about the impact of disposing of waste water into water bodies. Many tofu industries in big cities still do not use the WWTP system so that the process waste water is directly discharged into water bodies.

Figure 1. Tofu Industry Factory Without WWTP

Whey water is the term for the thick liquid that is the tofu processing industry's waste water that was separated from lumps. The COD content of tofu liquid waste, which ranged from 7520 to 11450 mg/L, yet has a significant protein content [24]. The characteristic of the tofu industrial wastewater is a pollutant load that must be treated appropriately. Sources of tofu liquid waste originating from a tofu industry factory in Medan, North Sumatra, Indonesia Figure 1 contains an organic load of 60,000 mg/L COD, 364 mg/L NH_3-N in a pH range of 3-4 [14], [25]. Because it incorporates several technologies and processes, the treatment of wastewater in the food industry is a complex operation. Therefore it requires a combination of several methods and equipment for the treatment system [26]. In

the treatment of waste water from the tofu industrial process as has been done [14], [17], [25] that it is appropriate to use an anaerobic process for biological processes because the characteristics of the wastewater contain a high organic load, so that it can break the complex organic chain Figure 2 contained in the waste water of the tofu industry.
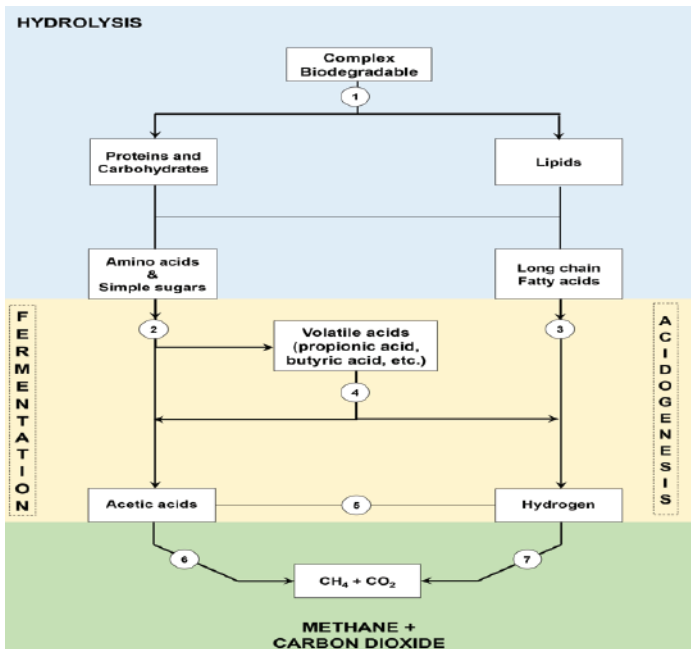

Figure 2. Anaerob Degradation: Degradation of Complex Organic Compounds for Biogas Formation [27], [28] redrawn for clarity by Nyimas Yanqoritha

An anaerobic reactor that is suitable to be used for tofu industrial wastewater treatment is the hybrid upflow anaerobic sludge blanket (HUASB) reactor. HUASB reactors are grouped according to the suspended growth process and the attached growth process. This reactor makes use of the upflow anaerobic sludge blanket (UASB) systems, which encourage the growth of suspended microorganisms. With the ability to operate at very high load rates, the UASB reactor's properties allow for the production of sludge that is simple to settle, has a high biomass concentration (30,000-80,000 mg/L), and provides excellent solid and liquid separation [27].

A hybrid upflow anaerobic sludge blanket (HUASB) reactor, also referred to as a UASB reactor, has been designed. The UASB technology is enhanced by the HUASB reactor, which interacts with fixed film reactors Figure 3 [29]. In addition, the advantages of the anaerobic reactor are that it can remove COD above 80% and produce optimum biogas at an optimized organic load rate.
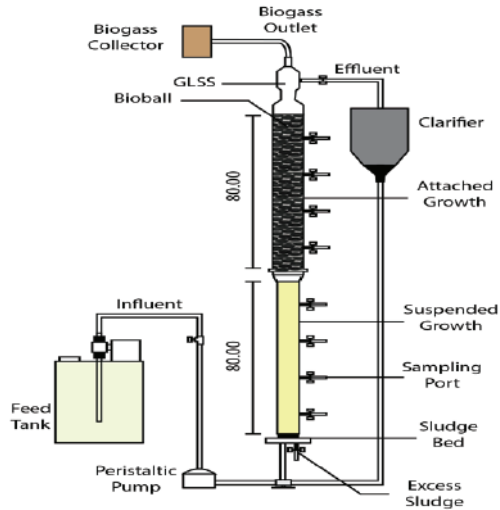

Figure 3. Reactor Hybrid Upflow Anaerobic Sludge Blanket (HUASB) for Tofu Wastewater [14], [25]

The performance of the HUASB reactor is carried out based on the seeding, acclimatization and running processes Figure 4 & Figure 5 based on supporting parameters that affect the water system at each stage that must be controlled. Parameters controlled are temperature, pH, load rate, hydraulic retention time (HRT), load rate (OLR) and nutrient addition.

An anaerobic reactor that is suitable to be used for tofu industrial wastewater treatment is the hybrid upflow anaerobic sludge blanket (HUASB) reactor. HUASB reactors are grouped according to the suspended growth process and the attached growth process. This reactor makes use of the upflow anaerobic sludge blanket (UASB) systems, which encourage the growth of suspended microorganisms.

With the ability to operate at very high load rates, the UASB reactor's properties allow for the production of sludge that is simple to settle, has a high biomass concentration (30,000-80,000 mg/L), and provides excellent solid and liquid separation [27]. A hybrid upflow

anaerobic sludge blanket (HUASB) reactor, also referred to as a UASB reactor, has been designed. The UASB technology is enhanced by the HUASB reactor, which interacts with fixed film reactors **(Figure 3**) [29]. In addition, the advantages of the anaerobic reactor are that it can remove COD above 80% and produce optimum biogas at an optimized organic load rate.
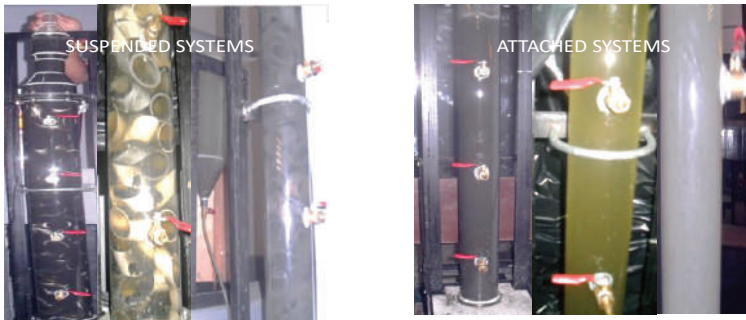

Figure 4. Process of Seeding-Acclimatization of PVC Media HUASB Reacto

The performance of the HUASB reactor is carried out based on the seeding, acclimatization and running processes (Figure 4 & Figure 5) based on supporting parameters that affect the water system at each stage that must be controlled. Parameters controlled are temperature, pH, load rate, hydraulic retention time (HRT), load rate (OLR) and nutrient addition.

Each stage of the process, the influent and effluent water from the process were analyzed manually [30] and the analyzes were carried out in accordance with the standard method for the examination of water.

**Figure 5. Process of Seeding-Acclimatization of
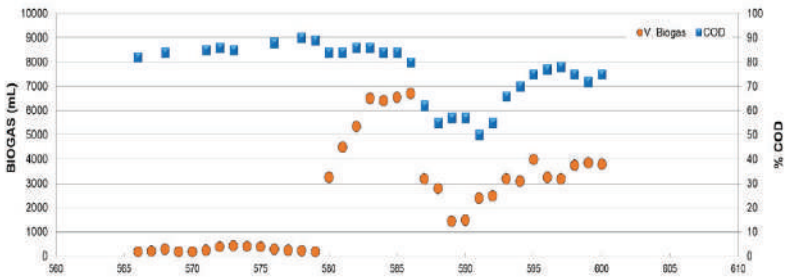Bioball Media HUASB Reactor**

**Figure 6. Profile of Biogas and COD Removal on
Shock-Loading Rate**

The performance of the HUASB reactor was tested for reliability with the effect of shock-loading **(Figure 6).** The short-term shock-loading effect is carried out on operational performance for resilience in achieving stability as a dynamic process [32], [33]). The shock-loading test is a test that is carried out under stable conditions to test for durability and can be returned to normal conditions in a short time [10], [34]. For the sake of survival, it is necessary to implement several mechanisms to monitor water quality from time to time which is an optimal waste management strategy [23], [35].

Conclusion

Food industry wastewater management and treatment can be carried out intelligently and sustainably by calculating the functions of time, energy, costs and human resources. Given the global challenges to natural resources, the HUASB reactor is capable of biologically treating wastewater that contains a high organic load. The secondary management system can be integrated into primary and tertiary processing with the IoT system. IoT is able to manage resources in a sustainable and informative manner to the community. Because water is a basic human need, IoT extends its capabilities to environmental issues. So that this gave birth to the concept of a smart city (Smart City) where IoT is capable of being a connection between various devices with the ability to exchange and collect data so that the parameters of the food industry water treatment system can be controlled in real time. Residual chemicals after processing will be detected by the IoT system. The above-mentioned process data must be real, thus requiring improvements to processing for continuous efficient applications.

References

[1]   S. Division, "Use of 4IR Technologies in Water and Sanitation in Latin America and the Caribbean Use of 4IR Technologies in Water and Sanitation in Latin America and the Caribbean (April).," 2020.

[2]   V. Andreoni and A. Miola, *Competitiveness and Sustainable Development Goals*, no. January. 2016.

[3]   N. Saeed, M.-S. Alouini, and T. Y. Al-Naffouri, "Toward the Internet of Underground Things: A Systematic Survey," *IEEE Commun. Surv. Tutorials*, vol. 21, no. 4, pp. 3443–3466, 2019, doi: 10.1109/COMST.2019.2934365.

[4]   D. O. Aderibigbe, A. A. Giwa, and I. A. Bello, "Characterization and treatment of wastewater from food processing industry : A review," pp. 27–36, 2018, doi: 10.4103/ijas.ijas.

[5]   A. Salam, "Internet of Things in Water Management and Treatment," Cham: Springer International Publishing, 2020, pp. 273–298.

[6]   B.-B. Perserikatan, "Targets and indicators of Goal 6.," 2015.

[7]   M. J. WarrenViessman, J.R., & Hammer, *Water Supply and Pollution Control*. Harper & Row, 1985.

[8]   D. D. Brandt, Malcolm J.; Johnson, K. Michael; Elphinston, Andrew J.; Ratnayaka, *Twort's Water Supply*. 2017.

[9]   L. Falletti, L. Conte, A. Zaggia, T. Battistini, and D. Garosi, "Food Industry Wastewater Treatment Plant based on Flotation and

MBBR," *Mod. Environ. Sci. Eng.*, vol. 1, no. 2, pp. 94–98, Jul. 2015, doi: 10.15341/mese(2333-2581)/02.01.2015/006.

[10]   M. B. Shruti Danve, "Real Time Water Quality Monitoring System," *Int. J. Innov. Res. Comput. Commun. Eng.*, vol. 03, no. 06,   pp.   5064–5069,   Jul.   2015,   doi: 10.15680/ijircce.2015.0306016.

[11]   O. Cristian, "Characteristics of the Untreated Wastewater Produced By Food Industry," *Analele Univ. din Oradea, Fasc. Mediu.*, vol. XV, pp. 709–714, 2010.

[12]   A. G. Tekerlekopoulou, C. N. Economou, T. I. Tatoulis, C. S. Akratos, and D. V. Vayenas, "Wastewater treatment and water reuse in the food industry," in *The Interaction of Food Industry and Environment*, Elsevier, 2020, pp. 245–280.

[13]   N. A. Noukeu *et al.*, "Characterization of effluent from food processing industries and stillage treatment trial with Eichhornia crassipes (Mart.) and Panicum maximum (Jacq.)," *Water Resour. Ind.*, vol. 16, pp. 1–18, 2016, doi: 10.1016/j.wri.2016.07.001.

[14]   N. Yanqoritha, M. Turmuzi, I. Irvan, F. Batubara, and I. Ilmi, "Acclimatization Process on Hybrid Upflow Anaerobic Sludge Blanket Reactor (HUASBR) using Bioball as Growth Media with OLR Variation for Treating Tofu Wastewater," *Orient. J. Chem.*, vol. 34, no. 6, pp. 3100–3105, Dec. 2018, doi: 10.13005/ojc/340654.

[15]   M. N. Abdallh, W. S. Abdelhalim, and H. S. Abdelhalim, "Industrial Wastewater Treatment of Food Industry Using Best Techniques," *Int. J. Eng. Sci. Invent.*, vol. 5, no. 8, pp. 15–28, 2016.

[16]   A. K. Singh and R. K. Kaushal, "Design of Small Scale Anaerobic Digester for Application in Indian Village : A Review," *J. Eng. Appl. Sci.*, no. 8, pp. 11–16, 2016.

[17]   N. Yanqoritha, M. Turmuzi, Irvan, Fatimah, and Derlini, "The Effect of Organic Loading Rate Variation on Digestion of Tofu Wastewater using PVC Rings as Growth Media in a Hybrid UASB Reactor," *Orient. J. Chem.*, vol. 34, no. 3, pp. 1653–1657, 2018, doi: 10.13005/ojc/340361.

[18]   M. Gajewska, K. Jóźwiakowski, A. Ghrabi, and F. Masi, "Impact of influent wastewater quality on nitrogen removal rates in multistage treatment wetlands," *Environ. Sci. Pollut. Res.*, vol. 22, no. 17, pp. 12840–12848, Sep. 2015, doi: 10.1007/s11356-014-3647-4.

[19]   C. G. Lee, T. D. Fletcher, and G. Sun, "Nitrogen removal in constructed wetland systems," *Eng. Life Sci.*, vol. 9, no. 1, pp.

11–22, 2009, doi: 10.1002/elsc.200800049.

[20]   J. Carrera, T. Vicent, and J. Lafuente, "Effect of influent COD/N ratio on biological nitrogen removal (BNR) from high-strength ammonium industrial wastewater," *Process Biochem.*, vol. 39, no. 12, pp. 2035–2041, Oct. 2004, doi: 10.1016/j.procbio.2003.10.005.

[21]   M. Collivignarelli, A. Abbà, I. Benigna, S. Sorlini, and V. Torretta, "Overview of the Main Disinfection Processes for Wastewater and Drinking Water Treatment Plants," *Sustainability*, vol. 10, no. 2, p. 86, Dec. 2017, doi: 10.3390/su10010086.

[22]   V. Albino, U. Berardi, and R. M. Dangelico, "Smart Cities: Definitions, Dimensions, Performance, and Initiatives," *J. Urban Technol.*, vol. 22, no. 1, pp. 3–21, Jan. 2015, doi: 10.1080/10630732.2014.942092.

[23]   Nyimas Yaqoritha, "Peningkatan Pengendalian Parameter Sistem Pengolahan Air Limbah Industri Pangan Yang Mengandung Beban Organik Tinggi Menggunakan Sistem IoT," in *Implementasi IoT dalam Perspektif Bidang Teknik*, I., A. A. Jansen, Ed. Nuta Media, 2021, p. 120.

[24]   BPPT, *Renewable Energy-Efficiency Energy Partnership (REEEP) Environmental Technology Centre, Academic Paper. Development of Planning and Policy Support for Improving the Potential Production of Biogas as Renewable Energy in Indonesia'a Tofu Industries.* Indonesia: The Agency for the Assessment and Application of Technology., 2013.

[25]   N. Yanqoritha, M. Turmuzi, and Derlini, "Acclimatization process of tofu wastewater on hybrid upflow anaerobic sludge blanket reactor using polyvinyl chloride rings as a growth medium," *AIP Conf. Proc.*, vol. 1840, 2017, doi: 10.1063/1.4982343.

[26]   V. Edmondson, M. Cerny, M. Lim, B. Gledson, S. Lockley, and J. Woodward, "A smart sewer asset information model to enable an 'Internet of Things' for operational wastewater management," *Autom. Constr.*, vol. 91, pp. 193–205, Jul. 2018, doi: 10.1016/j.autcon.2018.03.003.

[27]   J. dan H. L. L. Grady, C.P.L., *Biological Wastewater Treatment, Theory and Applications.* Marcell Dekker, Inc., New York., 1980.

[28]   F. I. B. & H. D. S. Tchobanoglous, G., *Wastewater Engineering Treatment and Reuse.* McGraw Hill Series Companies, Inc., 2003.

[29]   nessee: Speece, R.E., *Anaerobic Biotechnology: Biomass Immobilization,.* nessee: Archae press, Vanderbilt University, 1996.

[30]   B. Das and P. C. Jain, "Real-time water quality monitoring system using Internet of Things," *2017 Int. Conf. Comput. Commun. Electron. COMPTELIX 2017*, pp. 78–82, 2017, doi: 10.1109/COMPTELIX.2017.8003942.

[31]   D. APHA (American Public Health Association, Washington, "Standard Methods for the Examination of Water and Wastewater," 22nd ed., R. Eugene W. and L. S. B., Andrew D., Eds. 2012.

[32]   B. Hu, A. Wheatley, V. Ishtchenko, and K. Huddersman, "The effect of shock loads on SAF bioreactors for sewage treatment works," *Chem. Eng. J.*, vol. 166, no. 1, pp. 73–80, 2011, doi: 10.1016/j.cej.2010.10.005.

[33]   S. S. Yenji, G. R. Munavalli, and M. M. Koli, "Field-scale anaerobic baffled reactor for domestic wastewater treatment: Effect of dynamic operating conditions," *Water Pract. Technol.*, vol. 16, no. 1, pp. 42–58, 2021, doi: 10.2166/wpt.2020.103.

[34]   E. Senturk, M. Ince, and G. O. Engin, "The effect of shock loading on the performance of a thermophilic anaerobic contact reactor at constant organic loading rate," *J. Environ. Heal. Sci. Eng.*, vol. 12, no. 1, pp. 1–6, 2014, doi: 10.1186/2052-336X-12-84.

[35]   T. Anh Khoa *et al.*, "Waste Management System Using IoT-Based Machine Learning in University," *Wirel. Commun. Mob. Comput.*, vol. 2020, 2020, doi: 10.1155/2020/6138637.

Strengthening Women's Role and Participation in Village and Community Development 5.0

Oktiva Anggraini[1]

Introduction

The lack of women's participation in village development is the background of this paper. The United Nations Women's Annual Report (2018-2019), shows that 43% of the world's female workforce is engaged in the agricultural sector. Particularly in Southeast Asia and Africa, the number of women working in the agricultural sector is close to 60 percent [1]. It means that rural women make an important contribution in ensuring family and community food security and strengthening the country's economy. Despite playing a big role, rural women still face discrimination related to culture, social norms and are still in a subordinate position, not taken into account.

In terms of access to resources, the number of female owners of agricultural land is less than 13% [2]. Rural female-headed households have more limited access than male-headed households in terms of access to productive rural services such as fertilizers, livestock, tools, improved varieties, agricultural counseling and training. In many rural women's countries, female labor wages are lower than male [4].

Strengthening women's active role in development, from the planning level to the implementation of government programs, is a sustainable global issue that has received national policy priority. This is a follow-up to the achievement of the Millennium Development Goals (MDGs). The Sustainable Development Goals (SDGs) are the global agenda of the United Nations to promote sustainable development to address poverty, climate change, gaps in concrete actions stated by the 2015 UN Resolution.

The Ministry of Women's Empowerment and Child Protection of the Republic of Indonesia (KPPPA RI) has also made women's involvement in the public sector a major issue. As a leading sector, KPPPA already has a number of legal instruments and a grand design to achieve the target of women's representation in the public sector. One of them is by enacting Ministerial Regulation 10/2015 concerning the Grand Design of Increasing Women's Representation in the DPR,

[1] Public Administration Study Program, FISIPOL Widya University Mataram, oktivaanggraini5@gmail.com

DPD and DPRD in the 2019 Election. This has become the basis and performance guide for stakeholders in both the central government, regional governments, community organizations and universities to participate actively in increasing women's representation in the legislature.

At the village level, the Minister of Villages, Development of Disadvantaged Regions, and Transmigration has issued Ministerial Regulation Number 4 of 2017 concerning Amendments to the Regulation of the Minister of Villages, Development of Disadvantaged Regions, and Transmigration Number 22 of 2016 concerning Priority for Utilization of Village Funds in 2017. Through this Permendes it is confirmed that women as community empowerment actors are mandatory and cannot be avoided by village officials.

When a village is experiencing a social and ecological crisis, women are the most vulnerable group. Women have to struggle with difficulties in finding clean water, maintaining a source of income that has been disrupted due to disasters and other immaterial losses. Examples of this phenomenon are just some of the difficulties experienced by rural women. At the national level, the 2016 Sakernas data shows that of the total workforce, women generally work in the informal sector with the largest percentage in the agriculture, plantation and fisheries sectors by 28 percent, followed by the large and small scale trading sector by 23 percent. percent. percent. percent. Women working in the informal sector still face various obstacles, such as limited access to financial and capital resources, information, access to skills training. It is conceivable that the large number of women in the village, if they lack skills and education, will have an impact on the nation's competitiveness. Departing from this background and the birth of the Village Law, strengthening women's 'develop the village' deserves to be studied.

Discussion

With the issuance of the Village Law followed by a sizable village fund policy, politically and economically villages look more attractive. The Village Law prioritizes the use of village funds, including for community empowerment activities. The village is starting to show significant dynamics and changes, even though the description of the role and involvement of women in politics and decision-making processes in the village is still minimal. Even the impression of formality.

Confirmed in the Village Law, forums and spaces for women to be actively involved have been wide opened through village meetings and village development planning meetings. In these

forums, his suggestions regarding village development were accommodated. Even in village meetings, women can be involved in the discussion and preparation of the village medium-term development plan (RPJMDes), discussion and preparation of the village government work plan (RKPDes); discussion and drafting of village regulations (perdes); discussion and preparation of the village income and expenditure budget (APBDes), and discussion of the entry of investment and grants into the village. Village deliberation is a deliberation forum attended by the BPD, village government and elements of the village community to discuss strategic matters such as making village regulations, RPJMN, RKP, investment plans to enter the village, establishment of BUM Desa, village assets, village arrangement, work same village, and other extraordinary events.

Community empowerment activities have gained momentum in the village governance allocation structure. This should be used by women to increase their role. From a regulatory standpoint that guarantees women's participation, changes in the culture of the village bureaucracy often close access to participation for women. From an internal perspective, women themselves lack self-confidence, are apathetic and find it difficult to escape from the patriarchal cloak that hinders their steps.

These various external and internal obstacles have not been fully resolved, rural women are crushed by global disasters in the form of pandemics and the demands of society 5.0 [6]. Starting in 2020, the corona pandemic has become a global threat, in the end giving rise to various strategies as well as laws and regulations which are the legal basis for covering pandemic mitigation. One of them is Regulation of the Minister of Finance of the Republic of Indonesia no/128/PMK07/2022 concerning Amendments to Changes to Minister of Finance Regulation number 190/PMK 07/2021 concerning Management of Village Funds. This means that a number of village funds can be used to mitigate the Covid disaster [7]. In this case, the role of women is very much needed because they are victims of disasters, while on the other hand they have a role to contribute to maintaining the health of their families, caring for their families and other community members. It is only natural that the use of village funds should involve women's voices. Facts show that women's aspirations have not been accommodated. Women are often seen as helpless victims of mitigation. In addition to the economic impact, women are victims of gender-based violence. Data from Komnas Perempuan shows that during the Covid disaster, acts of gender-based violence increased by 63% [8].

In terms of community development 5.0, new values are introduced in society 5.0, created through innovations that will eliminate regional, age, gender and language gaps and make the provision of products and services well aligned. Problems in welcoming community development 5.0, obstacles to mastering technology are faced by girls and women. When demanding more women's contribution in rural development, this gap must be narrowed. This condition has become a national problem and is even still on the global agenda. Therefore, various strategies are needed to overcome it.

Barriers to changing these conditions, can be through several stages of women's self-capacity. First, by organizing themselves in an organization (stage 1). Through the organization, they learn to be literate in knowledge and politics so that they are more confident, learn to articulate opinions, learn to formulate and decide on common interests in a collectivity unit (stage 2). Women's interest is women's deliberation to decide on a priority list of collective demands (stage 3). In addition, what is no less important is to fill leadership that can voice women's interests (stage 4).

Changes in the position of women in the village structure and management are not in a vacuum, which means that many determining factors are involved. In this case, coordination between stakeholders is needed, from the government to the community, which is known as the affirmative step. For example, the provincial government of the Special Region of Aceh has been able to encourage women to be actively involved in musrenla or deliberations at the sub-district level thanks to the encouragement of stakeholders. Women are encouraged to map local women's, elderly and disabled people's problems and find solutions.

This phenomenon is different from women's non-involvement in community participation forums in villages in general. It is suspected that this is related to the problem of the capacity of village officials who do not understand village governance. Many village officials do not understand how to involve women in village forums. Even if women's groups are included in the planning process, their presence is nothing more than a formal requirement. In many cases, the presence of women is very passive. They just exist without being able to articulate their needs

To overcome this problem, we need a strategy of empowerment in the economic sector. A number of ways can be implemented to overcome women's limitations, including: (1) Work skills or entrepreneurship training; (2) Financial services and microcredit; (3) work information focused on women's needs; (4)

Optimization of technology and information communication in the women's business chain [5] and (5) Collaboration with the private sector and the universities to provide assistance and special employment opportunities for women.

Conclussion

   Strengthening the active role of women in development, from the planning level to the implementation of government programs, is still a long way off. To cut the chain of ignorance, it is time to develop education through formal channels for underprivileged women and non-formal education through girls' schools which include literacy and life skills education. With adequate skills and knowledge, women in turn can be encouraged to fulfill their sociological and political reproductive potential in accessing leadership roles and functions at the local level on the basis of justice and equality.

References

[1] ILO, *Working in the rural areas in the 21st century: Reality and prospects of rural employment in Latin America and the Caribbean*, Regional Office for Latin America and the Caribbean (Geneva, Thematic Labour Overview No. 3, 2017), p. 38. 2017.

[2] Annual Report UN Women, 2018-2019.

[3] FAO, IFAD and ILO, *Gender dimensions of agricultural and rural employment: Differentiated pathways out of poverty* – Status, trends and gaps, Rome. 2010.

[4] FAO, *The state of food and agriculture 2010-2011 – I: Women in agriculture: Closing the gender gap for development,* Rome, 2011.

[5] Gopalakrishnan and A. Sukthankar, *Freedom of association for women rural workers: A Manual,* Geneva, ILO, 2012.

[6] Wahyu Eka Styawa, Diskursus Pangan, Ekofeminisme dan Food Sovereignty di Era COVID-19, *Journal of Feminism and Gender Studies* Volume (2) Nomor 1, Januari – Juni 2022 Halaman   23-40   URL: https://jurnal.unej.ac.id/index.php/FGS/index

[7] Peraturan Menteri Nomor 4 Tahun 2017 tentang Perubahan atas Peraturan Menteri Desa, Pembangunan Daerah Tertinggal dan Transmigrasi Nomor 22 Tahun 2016 tentang Penetapan Prioritas Penggunaan Dana Desa Tahun 2017.

[8]   Komnas Perempuan, Perempuan dalam himpitan pandemi, Catatan Kekerasan terhadap Perempuan 2020, Jakarta, *Komnas Anti Kekerasan Terhadap Perempuan,* 2021a.

[9]   Atsushi Deguchi, Chiaki Hirai, Hideyuki Matsuoka, What Is Society 5.0?, *Society 5.0,* pp 1–23. ISBN : 978-981-15-2988-7. 2020. https://doi.org/10.1007/978-981-15-2989-4_1

GIS As a Tool in Hydrometeorological Disaster Mitigation Policy in Society 5.0

Retno Nalarsih[1],Wiwin Nurzanah[2],Satria Wibawa[3]

Introduction

Fukuyama 2018, explained that society started from society 1.0 in its civilization of hunting and reconciled with nature, society 2.0, people began to think more advanced and began to cultivate crops, united for development. Society 3.0, the condition of the community establishing an equipment industry to make work easier, society 4.0, the digital era of the computer industry. Society 5.0, robot-based technology, human degradation by robotics, digital-based data, development of human life towards the coast and the seashore. Mavrodieva, 2020 disaster research, experienced by the Japanese government is increasing, affecting the economic and social losses, in collaboration with the private sector that has the technological innovation to develop the concept of society 5.0, specifically on the factors causing disasters to encourage climate-related policies; so that it accelerates the achievement of development goals.

Indonesia is the longest coastline in the world after Canada with abundant coastal resources. At the same time, it also has a high vulnerability to coastal problems, frequent abrasion, erosion, rapid ecological changes, economic and social changes along with high population growth, impacting the demand for raw and clean water which triggers the disaster of water shortages, shifting settlements towards the coast resulting in tidal flooding caused by the rising sea levels that affect the clean water conditions. Based on the conditions, curved seawalls are needed as a solution for protecting tidal coastal areas. Syam, 2015 research on flood-prone levels, using *Geography Information System* tools as flood-prone directions, primary and secondary data, topographic data, slope, geology and soil structure, hydrology, and water resources, vegetation, climatology and land use in Tamalate District, three levels, namely low flood vulnerability (safe), moderate flood vulnerability (alert), high flood vulnerability (dangerous), solutions from the research results on a high flood

---

[1] Program Study Civil Engineering of Veteran Bantara University
[2] Program Study Civil Engineering of Muhammadiyah Sumatera Utara University
[3] Program Study Civil Engineering of Veteran Bantara University

vulnerability with integrated drainage with biopori and infiltration wells in densely populated areas.

In his book, Tomaszewski, B. (2020), the second edition of the Geographic Information System (GIS) for disaster management, applies a theoretical approach, field practice, and disaster management. Explanation of the full cycle of application to disaster management, local, state, national and international scales, involving the government, non-government organizations, the private sector, and volunteers [5]. Nalarsih, 2019 research on Canggu Beach Bali, sediment transport and erosion result in silting of river mouths towards the coast. 2D with a water depth of 40 cm, a slope of 30°, reflector, regular wave types, and roughness with zig-zag, resulting in a model that reduces wave reflection (Kr) by 0.141. Nalarsih, 2017 research on Canggu Beach Bali with high waves, available infrastructure sloping seawall, in front of 50 cm^3 cube concrete block, groin 90 cm diameter 100 cm, height 240 cm, slope model 52°, seawall located 20 m from the shoreline, tested with the height of storm waves, zero up crossing data which results in Reflection coefficient is 0.169 and reduces waves by 30% [7].

Aye et al., 2016, researched in Małopolska Province Poland, in Italy using Geographic Information Systems (GIS) integrated with the multi-criteria evaluator. This platform supports policy and decision-making in flood and landslide management, increasing the interaction between risk management stakeholders in formulating and selecting risk management [8]. Tomaszewski 2020, Geographic Information Systems (GIS) as a tool to create concepts and models so that the resulting infrastructure is reliable. Tools for spatial analysis, geographic mapping, and database development to create an integrated infrastructure with a policy direction model [9].

Nalarsih, 2021 states that the analysis of disaster problems, both drought and floods must refer to the land use. The results of the analysis of groundwater conditions in Pacitan show that the capacity of rainwater is only 0.339% and 29.02% of the unutilized soil is dry soil and rocky cliffs. This shows that natural resources and environmental capacity are very small so they affect disaster problems. The involvement of all efforts is carried out with the synergy of Penta Helix and the realization of a balance between technology and wise policies from and for the community to realize the era of society 5.0 [10].

Verburg, Peter H., et al., 2009 stated that the change of land cover is very necessary for the change of land use, characteristics, careful surveys, remote sensing, and land functions in integrated geospatial mapping. Increasing the multifunctionality of land use

requires methods of quantifying and mapping the spatial level of land use and functions, identified with a model approach to produce things that cause inconsistencies in land change assessments. There is a non-linear relationship between land cover, land use, and its function that must be consistent with the land change analysis [11].

Muwahid, 2019, research on flood modeling in Sirnoboyo Village, Pacitan, using small format aerial photo software (fufk) filtering analysis of Digital Terrain Model (DTM) extracts, for mapping flood vulnerability due to the overflow of the Jelok River. using the software HEC-RAS 5.0.3 analysis of planned discharge analysis with a return period of 50 years river geometric analysis, flood modeling, potential flood hazard analysis, flood vulnerability analysis, and flood risk analysis. Depth validation by comparison of model results with interview results and indicators using flood depth investigations, building risk parameters ranging from low, medium, high, and very high ranges [12].

Asselin, 2013 researched land cover change or intensification using CLU Mondo through an innovative spatial approach, land-use modeling: simulation of land system change with a global scale land change model to support integrated assessments, simulated land system changes with regional goods demand factors, and influenced by local factors that inhibit or encourage the conversion of land systems in which the demand for goods and services is supplied by various land systems characterized by land cover mosaics, the intensity of agricultural management, and livestock. This shows that the conditions of integration in the land-use change are the causes and effects of achieving various biophysical, economic, and social changes [13].

Tran, 2017 characterizes the relationship between land cover changes and land use temperatures which analyzes the relationship between changes in land cover, land use, and soil surface temperature patterns in the urbanization area. Starting from the relationship between soil surface temperature patterns and existing vegetation, then from human engineering infrastructure, and agricultural land use to normalized vegetation, and index number related to land cover changes in land use. Assessment of the impact of these changes and urbanization with statistics for each hot spot and analysis of the urban landscape, with the application of nonparametric regression models to estimate future urban climate patterns using the prediction of land cover and land-use change [14].

Ahmad, 2013 this research applies a comprehensive or thorough study for flood prediction using Geographic Information Systems (GIS), conducting population assessments, geographic

surveys, and identifying tsunami that has huge potential and economical damage, then arranges mitigation steps, analyzes the impact of damage to flood areas using Arc GIS simulation to identify flood risk analysis before and after a disaster. The data involved in this simulation such as air pressure, wind direction, humidity levels, rainfall, and soil moisture. These variables are very influential in mapping and modeling scenarios in a real condition approach [15].

Mansour, 2020 the research focuses on spatial dynamics of land use and simulation of urban expansion from 2008 to 2018, assessing and projecting urban growth and land cover changes using geospatial and Cellular Automata (CA)-Markov, parameters used in the spatial simulation process are population density, proximity to the city center, and proximity to main roads. The output of this model is a spatial guideline as a monitoring trend for future land cover dynamics, as disaster mitigation, and as a control for declining development or carrying capacity in the mountain town of Oman [16].

Discussion

Based on the high frequency of flooding in Pacitan, the locus of research in Ngadirojo Subdistrict in Hadiwarno Village is the Taman coast. Sidomulyo Village is the Soge coast and Tulakan District, Jetak Village is the Pidakan coast. Figure 1.

To achieve the recommendations of the Regional Government, it is necessary to direct the handling of flood-prone areas in the most flood-affected zones, using variables: hazard index, Population Exposure Index, Loss Index, and Vulnerability Index to tidal flooding. Figure 1 shows that the results of research in Pacitan Regency on tidal flooding show the tidal flood threatening index is "low", the average value of the exposed population index is "low", the average value of the loss index is "moderate", the average vulnerability index is "low"
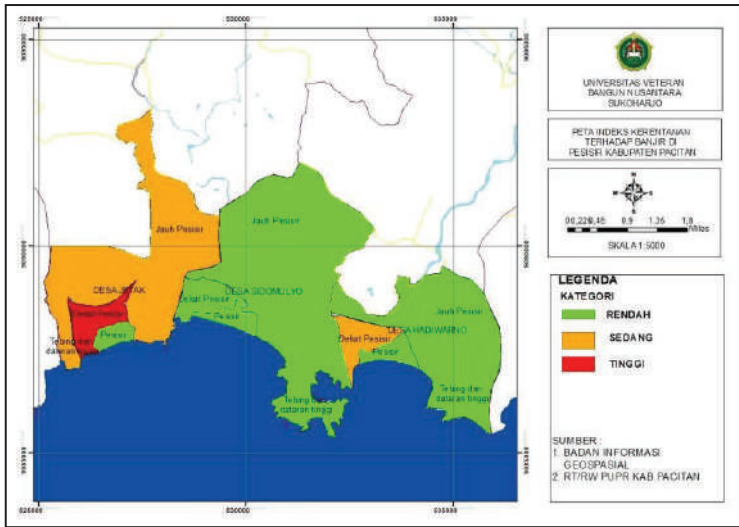
Figure 1. Result of Flood Hazard Map Analysis
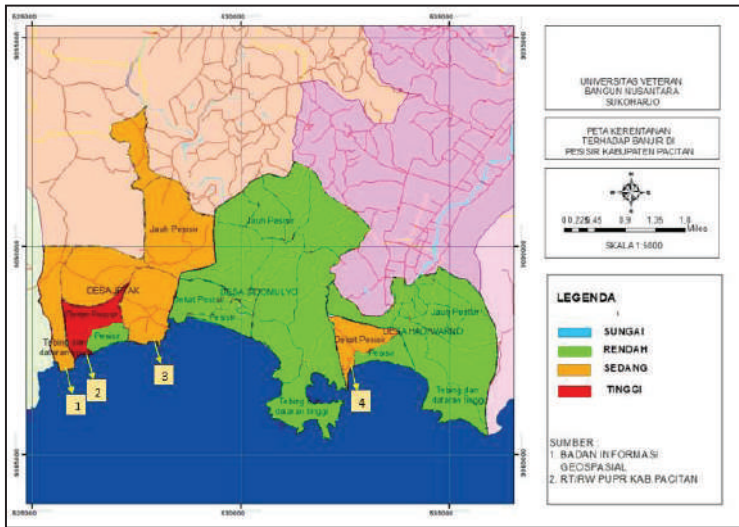(Source: Fitrianissa, Nalarsih, Ristanto, 2021)

Figure 2. Result of Flood Hazard Map Analysis
(Source: Nalarsih, 2021)

Based on the results of the study, using the same indicators, it was developed by adding an overlay rainfall factor to the base map of land use, attached in Figure 2. Based on the map in Figure 2, the

rainfall map is overlaid with the results of a flood-prone map with the same indicators as the previous study. The results of the research
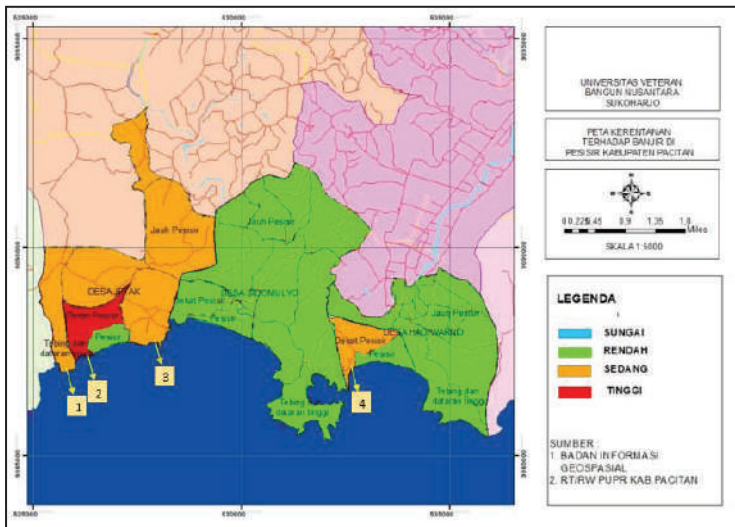
on overlaying rainfall in all locus researches in Figure 3. **Result of Flood Hazard Map Analysis**
(Source: Nalarsih, 2021)

Ngadirojo District, Hadiwarno Village, which is the Taman coast, Sidomulyo Village is the coast of Soge and Tulakan District, Jetak Village is the coast of Pidakan, has low rainfall intensity, this shows that the rainfall variable has not dominated due to flooding at the research location, so it says that for a temporarily the flooding was caused by high tides.

Comparing the map of previous research, it can be made a safety direction for coastal areas and regions near the coast within the ecological type, Pidakan Beach has high waves because
it is an unprotected offshore, making it possible for all waves or storms to hit the coastal area. Based on the threat to coastal areas. Jetak Village has a low flood vulnerability as its elevation is higher than the regions near the coast, because it has a lower elevation it becomes the highest threatening area.

Based on the results of the mapping, it was found that the tide factor greatly affects flooding. Therefore, from utilizing the previous

mapping of flood locations based on the height of vulnerability, a solution was prepared as a recommendation for area 1 in the form of a cliff with moderate vulnerability. Location 2 is an area near the coast that has high flood susceptibility to create a curved sloping beach safety wall, location 3 with moderate vulnerability is secured with a sloping beach safety wall, and location 4 is an area near the coast with the moderate vulnerability being secured by sloped safety seawalls.

Conclusion

Based on Geographic Information Systems (GIS) analysis, it concludes that the flooding in Ngadirojo Subdistrict, Hadiwarno Village is a Taman coast, Sidomulyo Village is a Sage coast, and Tulakan Subdistrict Jetak Village is a Pidakan coast. It possibly happened due to high rainfall or tidal factors of sea level so the construction of coastal protection is necessary. Some important suggestions to strengthen the direction for further research are involving community behavior factors in managing waste, and watershed characteristics of the River Basin Area from upstream to downstream to obtain closer direction to local wisdom.

References

[1]   M. Fukuyama, "Society 5.0: Aiming for a New Human-centered Society," *Japan SPOTLIGHT*, vol. 27, no. July/August, pp. 47–50, 2018, [Online]. Available: http://www8.cao.go.jp/cstp/%0Ahttp://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=108487927&site=ehost-live.

[2]   A. V. Mavrodieva and R. Shaw, "Disaster and Climate Change Issues in Japan's Society 5.0—A Discussion," *Sustainability*, vol. 12, no. 5, pp. 1–17, 2020, DOI: 10.3390/su12051893.

[3]   R. T. Nalarsih, N. Yuwono, and W. W. Winaktoe, "Perlindungan dan Pengelolaan Sumber Daya Pantai Tanjung Pinang yang Berkelanjutan," *Civ. Eng. Environ. Symp.*, pp. 1–6, 2020.

[4]   Syam, Nur. "Arahan Penanganan Kawasan Rawan Banjir Berbasis Gis (Geography Information System) Di Kecamatan Tamalate Kota Makassar." *Plano Madani: Jurnal Perencanaan Wilayah dan Kota* 4, no. 2 (2015): 42-48.

[5]   Tomaszewski, B. Geographic Information Systems (GIS) for Disaster Management (2nd ed.). Routledge, 2020. https://doi.org/10.4324/9781351034869.

[6]   Nalarsih, Yuwono, Darsono, 2019 "Innovation Design Roughness on Slope to Reduce Storms at Curved Seawall In Canggu Beach Bali" *International Journal* of *Innovative Technology* and *Exploring Engineering* (*IJITEE*). *ISSN*: 2278-3075, *Volume-8 Issue-9, July 2019* https://www.ijitee.org/download/volume-8-issue-9/

[7]   Nalarsih, Yuwono, Darsono, 2015 "Seawall Reliability Towards Reducer Waves at Canggu Beach Bali" Volume 1 Issue 1 Page 147-152, The 2nd International Conference on Coastal & Delta Areas (ICCDA 2015).

[8]   Aye, Sprague, Cortes A collaborative (web-GIS) framework based on empirical data collected from three case studies in Europe for risk management of hydro-meteorological hazards, International Journal of Disaster Risk Reduction, Volume 15,2016, Pages 10-23, ISSN 2212-4209,ttps://doi.org/10.1016/j.ijdrr.2015.12.001. (https://www.sciencedirect.com/science/article/pii/S2212 20915301758)

[9]   P.S.H.Peiris,"Geographical_Information_System_GIS_for_Disast er_Management" https://www.researchgate.net/publication/345179571_Geog raphical_Information_System_GIS_for_Disaster_Management.

[10]   Nalarsih, book chapter "The Pattern of Water Resources Resilience in Coastal Areas Centered on Balance in Society 5.0" Book Chapter Society 0.5 in Visiting professor UMM, ISBN: 978-623-6658-80-2 vol. 1, pp. 237–245, 2021, [Online] Available:https://pascasarjana.umm.ac.id/id/pages/detail/pu blikasi-60/bookchapter-society-50-leading-in-the-borderless-world.html

[11]   Verburg, Peter H., et al. "From land cover change to land function dynamics: a major challenge to improve land characterization." *Journal of environmental management* 90.3 (2009): 1327-1335.

[12]   Muwahid, Waradi. "Pemanfaatan Foto Udara Format Kecil (FUFK) Untuk Analisis RIsiko Banjir di Desa Sirnoboyo Kabupaten Pacitan." *Jurnal Dialog dan Penanggulangan Bencana* 10, no. 1 (2019): 62-76.

[13]   Sanneke van Asselen, Peter H. Verburg, First published: 25 July 2013, https://doi.org/10.1111/gcb.12331

[14]   Duy X. Tran, Filiberto Pla, Pedro Latorre-Carmona, Soe W. Myint, Mario Caetano, Hoan V. Kieu, ISPRS Journal of Photogrammetry and Remote Sensing, Volume 124, 2017,

Pages   119-132,   ISSN   0924-2716,
https://doi.org/10.1016/j.isprsjprs.2017.01.001.
https://www.sciencedirect.com/science/article/pii/S092427
1617300035)

[15]   Ahmad, N., Hussain, M., Riaz, N., Subhani, F., Haider, S.,
Alamgir, K. S., & Shinwari, F. (2013). Flood prediction and
disaster risk analysis using GIS-based wireless sensor
networks, a review. *Journal of Basic and Applied Scientific
Research*, *3*(8), 632-643.

[16]   Shawky Mansour, Mohammed Al-Belushi, Talal Al-Awadhi,
Monitoring land use and land cover changes in the
mountainous cities of Oman using GIS and CA-Markov
modeling techniques, Land Use Policy, Volume 91, **2020,**
104414,   ISSN   0264-8377,
https://doi.org/10.1016/j.landusepol.2019.104414.
(https://www.sciencedirect.com/science/article/pii/S02648
37719310919

Understanding the Character of Pancasila in Efforts to form a Drugs-free Young Generation

Ronggo Warsito[1], Dhiva Maulida Rizqi Nur'aini[2]

Introduction

The Indonesian nation proclaimed independence on August 17, 1945. It has been 77 years since the Indonesian nation has lived an independent state life that has been recognized by other nations in the international world. In its development, the Indonesian nation has unique conditions. The uniqueness of the Indonesian nation is not only visible from the diversity of cultural components, adhered to religion, ethnicity, and wealth that this nation has, but many other uniqueness that accompanies it. [1].

Judging from the wealth possessed by the Indonesian nation, it can be categorized as very abundant, accompanied by the location of the islands which are on the equator. Apart from that, fertile soil, abundant water, fresh air, abundant energy and mineral resources in the land and sea, all of which give the Indonesian nation uniqueness. In addition, we can also see the uniqueness of the conditions that exist, are felt, and have become the hallmark of this nation [2].

The various conditions and experiences above show that the Indonesian nation is a unique nation. Unique refers to the conditions experienced by the Indonesian people to this day. Many people and parties ask, "what's wrong with this nation?" Several indications of what is wrong with this nation can be reported, including the moral/moral condition of the nation which has been destroyed, such as the occurrence of free sex, the use and illicit distribution of drugs, KKN, and so on. [3].

The importance of education on the values, culture and character of the nation, especially those extracted from the values of Pancasila, has now been realized by the Indonesian people. Values education which used to be embodied by Pancasila and Citizenship Education, in the Reformation Era has begun to be abandoned. Subjects in schools a few years earlier had abolished Pancasila Education, leaving only Citizenship Education with minimal study hours. Now the Indonesian people have begun to realize how important the existence of education is to be able to shape the morals, ethics and character of the Indonesian nation. In 2022, the name

[1] University of Widya Dharma Klaten, ronggo_warsito@unwidha.ac.id
[2] University of Sebelas Maret Surakarta, dhivamaulida13@student.uns.ac.id

Pancasila has been brought back as a subject in schools. The Indonesian nation is really starting to realize how important character education is, one of which is the character of Pancasila [4].

The abilities that must be developed in students through schooling are various abilities that will make humans as divine beings and carry out the mandate as future leaders. The abilities that need to be developed in students are the ability to serve God who created them, the ability to have a strong personality, live in harmony and balance with others, and the ability to make this world a vehicle for prosperity and mutual welfare [5].

The measure of educational success that stops at test scores, such as the national exam, is a setback, because then learning will become a process of mastering skills and accumulating knowledge. This paradigm places students as imitative learners and learns from didactic exposures that will stop at mastering facts, principles and their applications. This paradigm is inconsistent with the essence of education outlined in the National Education System Law.

Creating harmony with family and society through character education together really needs to be pursued. This goal has the meaning that the process of character education in schools must be connected with the educational process in the family. If character education in schools only relies on interactions between students and teachers in the classroom and school, then the achievement of the various expected characters is difficult to achieve. [6].

Based on the background above, this study formulates two problems namely: 1) why is understanding the Pancasila character so necessary for the younger generation? ; and 2) what is the strategy for understanding the Pancasila character in an effort to form a drug-free young generation? Based on the background above, this study aims to: 1) find reasons why an understanding of the Pancasila character is needed for the younger generation; 2) find strategies for understanding the Pancasila character in an effort to form a drug-free young generation.

Discussion

In life in society, the concept of character education is increasingly getting a good place. This situation can be seen from the phenomenon of community activities that do require character in an effort to overcome various educational outcomes inequalities seen from the current behavior of graduates of formal education, for example corruption, rampant free sex among adolescents, drug abuse and illicit trafficking, brawls, murders, and robbery.

In discourse with education, the word character is primarily concerned with people. Character is about quality, not quantity. Character relates to distinguishing or limiting power, limiting or differentiating one from another, distinguishing one society from another. Character can refer to both positive and negative qualities. In conclusion, that character is a word that refers to the quality of people with certain characteristics [7].

Indirectly reveals that character is in personality. Character implies a moral standard and involves a value judgment. Character is related to behavior that is governed by effort and desire. Conscience, an essential element of character, is a habitual pattern that controls a person's behavior, bringing it into conformity with the socially accepted patterns of groups. Meanwhile, Hurlock's character definition can be used to further analyze character and its implications [8].

Various meanings of character education as mentioned above emerge and develop in the minds of many people, teachers, and the general public. In character education, humans are seen as subjects who are able to overcome determinations outside of themselves. Humans act and are able to overcome their limitations because they have valuable values and are worth fighting for. On the basis of values that are always attached to every dignified human being, it makes humans able to overcome the exposure of life.

In nation building, education plays a central role, because it is able to develop reliable human resources. It was from education that great world figures emerged who gave positive colors and nuances to the progress of mankind. From education, progress in science, technology and art grows so rapidly that the benefits can be felt for the people of the nation and the world. The progress of the world of education today has really been able to bring people to a life that is much different than before [9].

A view which states that physical development is prioritized and ignores mental development will hinder educational development. The correct development must be comprehensive. The perception that development is associated with economic and industrial development, while human resource development is not directly visible, will cause negative accompanying symptoms, including socio-political turmoil. This shows that development in a limited sense in the economic and industrial fields does not yet reflect the true essence of development [10].

At the time of the proclamation of Indonesian independence, national leaders realized that there were three big challenges that had to be overcome, namely the importance of a united and sovereign

country, building the nation, and building character. These three matters cannot be solved separately, but require a holistic solution, especially for building the nation and character (nation and character building). Building a nation with character education is something urgent and must be done now.

The development of national character in Indonesia is felt to be very necessary for its development when considering the increasing number of brawls between students, university students, as well as forms of juvenile delinquency in big cities, drug use and others. There is another matter of concern, namely the failure of the "Honesty Canteen". The desire to build honesty in children is carried out through honesty canteens in several schools. Many honesty canteens have gone bankrupt and failed because honesty has not awakened in children [11].

Discipline and orderly traffic, a culture of queuing, a culture of reading, a culture of clean and healthy living are still far from standard. In big cities, red lights don't seem to work. If there are no officers, running red lights is often done. Our pride in our own identity and cultural wealth is still low. As a nation, we still suffer from a national inferiority complex, it is proven that we still love and devour without selection all foreign products and culture. Actually, if we want to examine further, our culture is not lower than foreign cultures. Many of our cultures still reflect an eastern polite culture. On the other hand, not a few foreign cultures, especially western culture, pay less attention to eastern culture [12].

Next, let's look at some indications of "what's wrong with this nation?" First, the moral/moral condition of the younger generation is damaged/destroyed. This is marked by the rise of free sex among teenagers, drug trafficking, brawls, distribution of pornographic photos and videos, and so on. This cannot be separated from the increasingly swift foreign culture, especially western culture, which enters our country. Our current young generation has moved a lot and is infatuated with western culture which is said to be more advanced. If we don't realize it from now on, then our younger generation will be carried away by their own noble culture and will be undermined by foreign cultures that can bring down [13]. The consequence is even more terrible is to lead to death [14].

Regarding the prohibition of consuming drugs, even during the time of the Majapahit Empire, it actually existed. This is evident from the history at that time, that after Majapahit collapsed and Islam began to spread throughout Indonesia, the remnants of the influence of Buddhist moral teachings were still well known in Javanese society. All letters of the moral teachings begin with the letter "M" or in

Javanese it is called "Ma". Therefore, the five moral principles are well known. [15].

In terms of its use, drugs are divided into 2 groups, namely 'street' (illegal) drug users and legal drug users who are abused in the medical world. It is these street or illegal drug users who often make a big problem in society. The danger of drug trafficking is greater than murder. Why is that? Because the consequences of death from drug use can last for generations. There have even been circulating in the community some confectionery or candy mixed with drugs that can damage the mentality of children and the younger generation. Based on the type classification, drugs are divided into 3 major groups, namely narcotics, psychotropic substances and other additives. These three types of drugs are often referred to as drugs.

Given the rampant distribution and use of narcotics at this time, it seems that the existence of the law does not deter them (dealers or dealers), there is always narcotics smuggling into Indonesian territory, efforts to prevent and deal with it are the responsibility of all of us. It is our duty and obligation as parents to supervise and be more aware of our children in association. Monitor children's behavior and lifestyle. Parents must be sensitive to changes in children's attitudes if they are involved in drug use will be seen very clearly. We should and must guard and protect them from such attacks. Once they fall, is a big problem later on. This is where the importance of cultural education and national character.

The damage to the nation's morals and it has become acute (corruption, immorality, crime, criminal acts need serious attention. The frequent and recurring disasters experienced by the Indonesian people make us all need to introspect. Have we as servants carried out the obligations as guided by religious law? Have we Have we served God properly? Have we fulfilled our obligation to help each other?

Poverty, which has reached 40 million and continues to grow, makes us the Indonesian people to contemplate and work hard. As a large nation with a large territory as well as the fertility of the land and the wealth of the sea, it should make us prosperous. We have to get rid of the habit that likes to be called poor. Loyal to the collection of data on poor families for which there will be assistance, residents are not ashamed to admit that they are poor in the hope of receiving assistance from the government. In real life, we see residents lining up to get BLT but arriving on good motorbikes. Sometimes they came to the BLT collection point dressed in extravagant clothes and wearing lots of jewelry.

Low competitive power is also the cause of the nation's problems which can later impact on a decrease in character because

they feel they are of lower rank compared to other nations. This can cause many domestic products and human resources to be replaced by products and human resources from abroad. Job vacancies that should be filled by domestic workers, in the end are filled by foreign workers.

Inefficiency in education financing. Inefficient education financing can lead to waste in the education sector. One step that is really needed is careful planning, so that all education funding is right on target. With education funding that is right on target, it will have an impact on the implementation of advanced and developing education.

Understanding the Pancasila character is carried out using a systems approach. In abstract thinking, a system is defined as a set of interrelated, interdependent, and interacting parts or components that lead to a state of balance, interdependence so that they form a single entity to achieve certain goals. The Pancasila precepts underlie one another and mutually reinforce each other. For example, the first precept of Belief in the One and Only God animates the second, third, fourth and fifth precepts.

Conclusion

Improvement of commendable character or morals can be carried out through the following things: 1). Muhasabah, namely always counting the actions he has done so far; 2) mu'aqobah, giving punishment for various actions and actions he has committed; 3) Mu'ahadah, an agreement with ahti conscience (inner heart); 4) Mujahadah, trying his best to do good deeds. The process for building character uses 7 stages, namely Muhababah, Muroqobah, Mujahadah, Musyahadah, Muhabbah, Muhabbah, and Ma'rifah.

Character building in Indonesia is felt to be very necessary for its development, considering the use of drugs and the like which are increasingly widespread at this time. There is another matter of concern, namely the failure of the "Honesty Canteen". The desire to build honesty in children is carried out through honesty canteens in several schools. Many honesty canteens have failed because honesty has not awakened.

Discipline and orderly traffic, a culture of queuing, reading, clean and healthy living are still far from standard. In big cities, red lights don't seem to work. If there are no officers, running red lights is often done. Our pride in our own identity and cultural wealth is still low. As a nation, we still suffer from a national inferiority complex, it is proven that we still love and devour without selection all foreign products and culture.

Next, let's look at some indications of "what's wrong with this nation?" First, the moral/moral condition of the younger generation is damaged/destroyed. Second, educated unemployment is worrying. Third, the damage to the nation's morale has become acute. Fourth, the frequent and recurring disasters experienced by the Indonesian nation. Fifth, poverty which has reached 40 million and continues to grow. Sixth, low competitive power, Seventh, inefficiency in education financing. Of the various problems and conditions that are very concerning, this is where the importance of character education lies. Cultural education and national character in this study are Pancasila characters. The results found: 1) why an understanding of the Pancasila character is needed for the younger generation is the occurrence of moral degradation which is already very worrying and drug use among adolescents; 2) the strategy of understanding the Pancasila character in an effort to form a drug-free young generation is carried out by how to examine in more depth the content and meaning of the Pancasila precepts through a systems approach.

References

[1]   G. Lestari, "Bhinnekha Tunggal Ika : Khasanah Multikultural," *J. Pendidik. Pancasila dan Kewarganegaraan*, vol. I, no. 1, 2015.

[2]   R. Agriyanto and A. Rohman, "Rekonstruksi Filsafat Ilmu dalam Perspektif Perekonomian yang Berkeadilan (Kajian terhadap Ontologi, Epistemologi dan Aksiologi Ilmu Ekonomi yang Islami)," *At-Taqaddum*, vol. 7, no. 1, 2017, doi: 10.21580/at.v7i1.1530.

[3]   K. Hasan, "Peran Pendidikan Islam Terhadap Pencegahan Korupsi," *... DIB J. Ilm. PRODI Pendidik. ...*, 2019.

[4]   S. Adawiyah, "Pentingnya Pendidikan Karakter Pada Anak," *Pros. Semin. dan Disk. Nas. Pendidik. Dasar*, 2018.

[5]   S. Suardi, M. Megawati, and H. Kanji, "Pendidikan Karakter di Sekolah (Studi Penyimpangan Siswa di Mts Muhammadiyah Tallo)," *JED (Jurnal Etika Demokrasi)*, vol. 3, no. 1, 2018, doi: 10.26618/jed.v3i1.1979.

[6]   A. Wadi, "Pentingnya Pendidikan Karakter dalam Membangun Moral Bangsa Perspektif Al-Qur'an," *Al Hikmah J. Stud. Keislam.*, vol. 10, no. September, 2020.

[7]   R. Awwaliyah and H. Baharun, "Pendidikan Islam Dalam Sistem Pendidikan Nasional Pendidikan Islam Dalam Sistem Pendidikan Nasional (Telaah Epistemologi Terhadap Problematika Pendidikan Islam)," 2018.

[8]   R. Warsito, *Pendidikan Karakter*, 1st ed. Klaten: Unwidha Press Anggota APPTI, 2017.

[9]   Yayan Alpian, Sri Wulan Anggraeni, Unika Wiharti, and Nizmah Maratos Soleha, "Pentingnya Pendidikan Bagi Manusia," *J. BUANA Pengabdi.*, vol. 1, no. 1, 2019, doi: 10.36805/jurnalbuanapengabdian.v1i1.581.

[10]   M. I. Kurniawan, "Tri Pusat Pendidikan Sebagai Sarana Pendidikan Karakter Anak Sekolah Dasar," *Pedagog. J. Pendidik.*, vol. 4, no. 1, 2015, doi: 10.21070/pedagogia.v4i1.71.

[11]   A. Saeful, "Implementasi Nilai Kejujuran dalam Pendidikan," *Tarbawi*, vol. 4, no. 2, 2021.

[12]   O. Yudipratomo, "Benturan Imperialisme Budaya Barat dan Budaya Timur dalam Media Sosial," *J. Audience*, vol. 3, no. 2, 2020, doi: 10.33633/ja.v3i2.3718.

[13]   C. Yuniar, "Pancasila dan Perannya dalam Menghadapi Arus Globalisasi," *lpmedentsundip.com*, 2020. .

[14]   A. I. Assaad, N. I. Said, F. Agil, and M. Alaydrus, "Menangkal Bahaya Narkoba Bagi Remaja," *AL-TAFANI J. Pengabdi.*, vol. 1, no. 2, 2021.

[15]   R. Hartono, A. Hartoyo, and Hairida, "Pemanfaatan Budaya Lokal untuk Meningkatkan Kompetensi Global Siswa," *J. Basicedu*, vol. 6, no. 4, 2022.

TPACK Model Based Instruction: Exploring Learning Needs for Writing Class Through the Lens of Lecturers

Salasiah Ammade [1], Khairil [2]

Introduction

Education stakeholders all around the world, including in Indonesia, have recognized the impact of ICT in the field of education. It provides more opportunities for teachers and students in adopting and integrating it as potential support to learn better [1]. Also, it raises additional challenges for teachers' professional growth. However, using technology to meet students' learning requirements and possibilities is not an easy task. Technology alone isn't usually sufficient to match the academics' preferred competency changes and the behavior, it needs teacher's role to maximize its utility [2]. It may be up to the teacher to include ICT into their instructional responsibilities in order to achieve the greatest degree of student preference modifications.

Although the ICT potential in the pedagogy sector has been recognized by in Indonesian teachers, practice still needs to be driven because many instructors become familiar with various technologies but do not use it effectively for teaching purposes. Despite the importance of ICT in education, most Indonesian teachers with basic computer skills have focused their use of it on administrative tasks, such as preparing lesson plans, maintaining administrative records, taking notes, and searching for primary data.

At the initial studies performed through interview at Universitas Muhammadiyah Parepare; the place I teach, the lecturers of English at English Department at Education and Teacher Training Faculty have good qualification on technology literacy. They apply ICT regarding their teaching needs like for their career, and education knowledge for quality upgrading. Nevertheless, technology integration as a part of teaching learning process is still in short access. The interview from English lecturers showed the addition of technology for teaching still in minimum portion; simply they use it in searching the data needed for teaching material. They said that giving module or book as the main source of teaching is easier for the

---

[1] Masters of English Language Education, University Muhammadiyah of Parepare, email: ppsbiumparepare@gmail.com

lecturers and the students than using other sources. In addition, the practice of technology toward their teaching learning process does not link with the pedagogy approach and the teaching content. As a result, technology practice is just on the surface of teaching and not being part of their instruction.

In this study, Instructional System Design (ISD) of ASSURE will be considered as development design of teaching model. ASSURE model is an Instructional System Design (ISD) in a small scale model that focused on the design of classroom interaction and can serve as guide for planning the use of media in teaching [3]. TPACK model is seeing to be used as the instructional model in teaching writing as both links to one another. TPACK stands for Technological Pedagogical Content Knowledge that combines technology, pedagogy, and content knowledge in one package.

Dealing above issue, exploring the learning needs of students as the first step in implementing ASSURE design is assumed important in developing TPACK model-based instruction for teaching writing. For that reason, this paper will describe the data gathered on students' learning needs from the lectures' view. The research subject was the lecturers of English Education department at Universitas Muhammadiyah Parepare who involved in writing course by considering their knowledge on teaching writing can represent the data needed in the study. The total number of lecturers who participated in this study were 14 lecturers and the data gathered by giving them questionnaires on the issue of learning needs. The data gathered then analyzed using SPPS and displayed in the form of bar graph.

Finding and Discussion
Finding

As mentioned at the beginning of finding session, learning need of students is investigated to ease lecturers in acknowledging better teaching method for them. On the other hand, taking only from students' side will not be enough, lecturers' view is also required to balance the result. Therefore, this part will reveal findings from questionnaire distributed to lecturers concerning teaching need as well as gaining information on learning need in writing course. The questionnaire to lecturers deals with sessions; 1) technology awareness; 2) technology integration; and 4) lerning preference from lecturer's view. The details of the research result will be appeared below.

Technology Awareness

Technology awareness of lecturers were explored with two questions on list of technology literate, and length of technology use for teaching and learning. The finding on list of technology literate can be seen at the chart below.
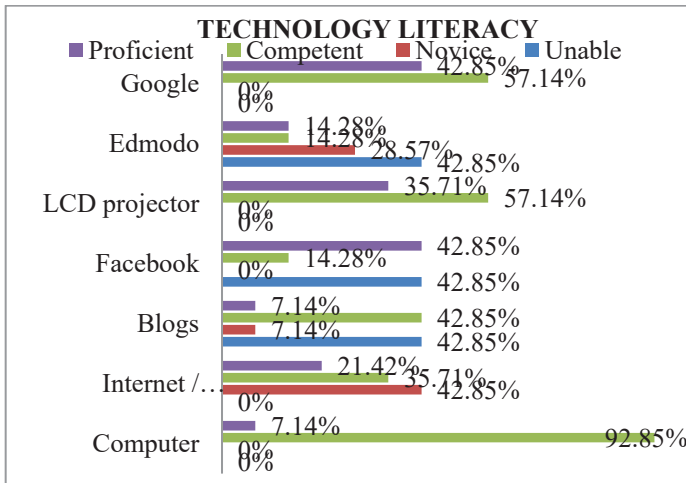

Figure 1 Technology Literacy

It is apparent from this chart that highest percentage on technology literacy list went to computer. Most of lecturers (92, 85%) are on competent level of computer literacy, and only 1 lecturer or 7, 14% is categorized on proficient level. It is good thing to know that none of them was categorized illiterate on computer which is being fortune for improving education quality. Next list of literacy on technology were positioned by LCD projector, and Google. Both types of technology had same percentage (57, 14%) on competent level of literacy, but different on proficient level. There were 42,85% respondents admitted that they were proficient on Google and 35,71% of them were proficient on LCD projector literacy.

Facebook as one kind of popular social media in the world is not new for my research respondent. As seen on the chart, from 14 respondents, 42,85% of them were categorized literate on proficient level, and 14,28% were on competent level, and none was categorized novice. Surprisingly, even though Facebook is known as well famous social media technology in the world, there was still

some lecturers confessed that they were still unable to use facebook (42,85%).

Subsequently on technology literacy chart was blog. Blog is a website that maintains ongoing information of somebody or a journal of someone that is available on the web. It is revealed on the chart that 7,14% of the lecturer was on proficient level of being literate on blog, and 42,85% was on competent level. There was simply 1 lecturer (7,14%) was on novice level, but several of them were still classified on unable level.

Last list of technology literacy level in the chart was internet or websites. The respondents admitted that they were literate on internet/websites. None of them chose the statement of unable level means that all of them acknowledged with this kind of technology. There were 42,85% of them on novice level of internet literacy, 35,71% were on competent level, and 21,42% were on proficient level.

This finding showed that the respondents in this research can be categorized as literate technology person particularly on internet or websites. They are competent on technology literacy.

Technology Integration

In this section, the respondents were explored on their technology experience and technology integration during their teaching activities. Below chart illustrates frequency of integrating technology in teaching that lecturers applied.
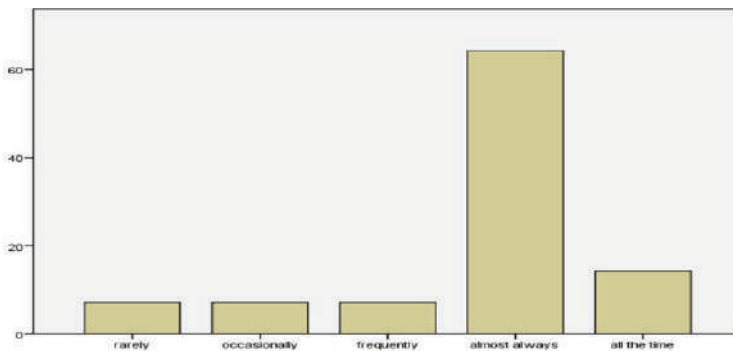

Chart 2. Frequency of Integrating Technologies in Teaching Activities

As display above, the highest chart indicates most lecturers almost always integrated computer technologies in their teaching

activities (64, 3 %), and there were 14, 3 % said they used it all the time. The rest of them chose the other options in the questionnaire. This finding indicates that computer technologies were not new for them in teaching activities, but it has been part of their teaching assistance.

Learning preference from Lecturers' view

The data below shows learning from teachers' preference, below chart shows the data on it.
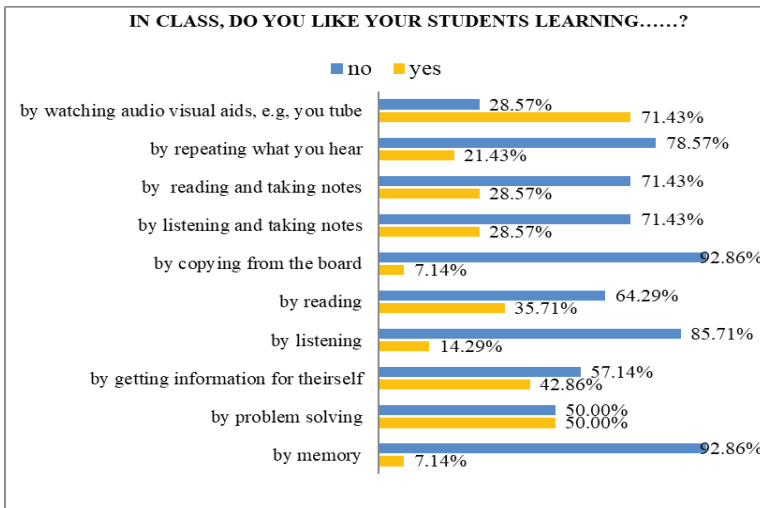

Figure 3. Way of Students' Learn

It is obviously illustrated above that lecturers want their students learning much from audio visuals such as *YouTube*. There were 71, 43% respondents said yes toward the option and 28,57% disagreed on it. The lecturers also like their students learning by problem solving case. The number of lecturers who agreed and disagreed was same or in balance (50%). Getting information by them was next learning preference the lecturers like for their students. There were 42,86% said yes on this form, but the *no* answer was bigger (57,14%).

Next preferences the lecturers want their students do were learning by reading (35,71%), learning by listening and taking notes (28,57%), learning by reading and taking notes (28,57%), and repeating what you hear (28,57%). So, this chart clearly showed that

most lecturers like their students learning using audio-visual aids than using others.

Regarding teaching sources, the chart below will show kinds of teaching material sources lecturers like better to choose.
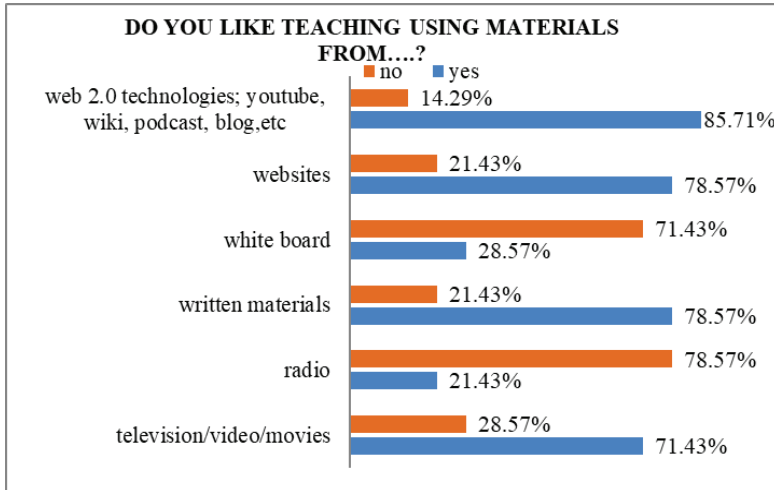

Chart 4. Teaching Materials Source

As seen at above chart, the highest percentage of teaching material sources were from web 2.0 technologies such as youtube, wiki, podcast or blog. There were 85,71% respondents admitted they like teaching material that come from technologies, and only 14,29% respondents rejected it. Next teaching material sources lectures like were from websites, and written materials. There were 78, 57% respondents chose this stuff in assisting their teaching learning process. Television, video, or movies were other teaching sources chosen by respondent in support their teaching (71, 43%). Uniquely, there were few respondents like teaching using materials from radio (21,43%), and 78,57% were disagree using it as teaching source. Conclusion taken from this chart was lecturers in this study have high awareness in putting technologies as teaching source despite its application still need to be supported.

Below chart displayed about teaching media applied by research respondents in their teaching.
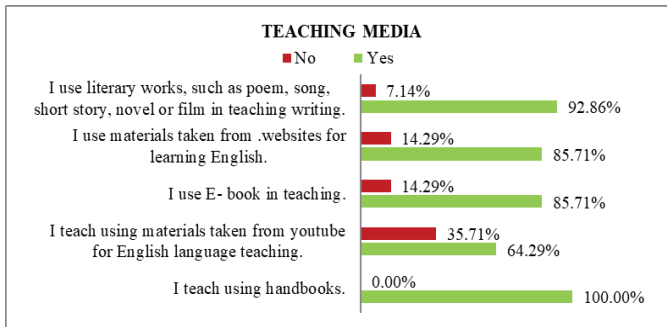
Figure 5. Teaching Media

The figure 5 demonstrated all research respondents teach using handbooks as their main media (100%). Then, they varied their teaching media using literary works like poem, song, short story, novel or film (92,86%). Some respondents also were supported using materials taken from websites for learning like www.bbclearningEnglish.com, and using E-book as their teaching media (85,71%). Moreover, applying YouTube as teaching media was chosen as teaching media stated by 64,29% respondents in this questionnaire. It is clearly seen here that handbooks are still being the best option for teaching media as it is easy to find and east to use than any other media.

Discussion
Technology Awareness and Integration

Besides investigating learning need from students' side, considering lecturers' voice is also required to have balance data on it as well as to ease the researcher in acknowledging what sort of teaching model they need in learning English writing.

The first finding was on lecturers' technology literacy. The lecturers can be categorized on competent level of technology including capable on computer, good at using search engine like google, and knowledgeable using others technology application like EDMODO, blog, or facebook. The findings revealed lecturers can be introduced to TPACK as they have good literate on technology part. In addition, the technology literacy the lecturers have will support the positive atmosphere in learning as linked with study by some researchers [4]–[9].

Regarding technology awareness, the frequency or length of respondents in using technology in teaching and learning was investigated. At this point, the highest frequency using technology

tool was through computer/laptop, followed by LCD projector, and search engine like Google. It indicated clearly that the good literacy on technology and the most frequent use of technology component that lecturers have can be a good point to involve them much in technology-oriented education to face challenge of 4.0 industrial revolution period. Furthermore, what they need more on teaching learning as revealed in the finding was kind of self-empowerment on the effective use of technology, and it can be gained through training or workshop program about how to empower technology integration in teaching learning process. If they are well facilitated on it, better teaching will be reached [10], [11].

Other investigation about learning need from lecturers' view was about level of technology integration the respondents possess. As revealed in the finding, most respondents can be categorized at creative application stage on technology integration in teaching which they can apply what they know about technology in the classroom and they are able to use it as an instructional as well as they have integrated it into curriculum. This data result showed that the lecturers have good ability on technology and it made easy for them to integrate it to their teaching. What they need more was a sort of training or short assistance on the maximal use of technology for teaching to face technology working environment [12].

Learners' Preference from Lecturers' View

Teaching style can also be starting point to reach successful teaching learning process. It is often described synonymous as teaching method or technique. In this investigation of learning need from lecturer view, lecturer's style in teaching including their preference in teaching, materials for teaching, teaching approach, and teaching media were being the items included in the questionnaire given to respondents. Major teaching style in teaching was the first item asked to respondents. Teaching using physical objects like drawing or role playing was also chosen. Here, the main point attention for teaching style is activating students to be able to construct their own knowledge by facilitating them to work with others as [13] supported as well that in order to achieve better writing activity, teachers should accommodate their students with appropriate approach.

Due to way of students learn, respondents prefer their students learn by watching audio visual aids, like YouTube, vlog, or other constructive videos than learning by reading, repeating, listening, copying from the board or by problem solving. It can be seen here that the need of teaching the lecturers want is interactive

learning involving learning via technology assistance. The assistance of technology in teaching has been proved to support the learning [14]. The teaching material source is other thing that should be given attention in teaching. If the teaching materials are well prepared, better teaching will be gained. Therefore, when respondents were investigated this issue, their answer was various. Yet, major answer was they prefer teaching using materials from web 2.0 technologies; YouTube, wiki, podcast, blog, etc.

Concerning teaching approach preference, using various teaching techniques like role-play, discussion, and demonstration and various teaching media was the major option respondents opted.

In relation to teaching media, respondents still teach using handbooks, despite the fact that some use literary works such as poem, song, short story, novel, or film. The use of technology assistance like websites, YouTube, E-book still restricted although they are familiar with these types of technology. The maximum use of it needs more exploration for its value. For that reason, this research proposes new framework in teaching by maximizing the use technology, pedagogy, and content knowledge in teaching learning process.

Conclusion

In designing teaching model using the framework of TPACK, the learning need from lecturers' view cannot be aside its contribution. Based on the data gathered, it can be concluded that the lecturers' technology literacy is one the competent level. It just needs to maximize its use for teaching. Regarding teaching preference, the use of technology assistance like websites, YouTube, E-book still restricted although they are familiar with these types of technology. The maximum use of it needs more exploration for its value. The lecturers realized that technology assistance in teaching cannot be denied its existence, and they are keen to upgrade their teaching knowledge on it.

References

 [1]   P. K. R. Maddikunta *et al.*, "Industry 5.0: A survey on enabling technologies and potential applications," *J. Ind. Inf. Integr.*, p. 100257, Aug. 2021, doi: 10.1016/J.JII.2021.100257.

[2]   A. Milanović and B. Novković Cveković, "ICT In Teaching – Once A Choice, Now A Necessity," *Facta Univ. Ser. Teaching, Learn. Teach. Educ.*, 2021, doi: 10.22190/futlte2002147m.

[3]   R. Heinich, M. Molenda, J. Russell, and S. Smaldino,

"Instructional Media and Technology for Learning," *Int. J. Distrib. Parallel Syst.*, 2012, doi: 10.1016/J.ARABJC.2011.11.008.

[4] R. H. Jones, "Digital literacies for language teachers: Beyond competencies," *Recent Issues English Lang. Educ. Challenges Dir.*, 2014.

[5] A. Salas, "Literature review of faculty-perceived usefulness of instructional technology in classroom dynamics," *Contemp. Educ. Technol.*, 2016, [Online]. Available: https://dergipark.org.tr/en/pub/cet/issue/25744/271556.

[6] S. Albugami and V. Ahmed, "Success factors for ICT implementation in Saudi secondary schools: From the perspective of ICT directors, head teachers, teachers and students," in *International Journal of Education and Development using Information and Communication Technology*, 2015, vol. 11, no. 1, pp. 36–54.

[7] D. Astuti and R. LestarI, "An Efforts To Improve Digital Literacy Teachers Through The Creation Of Electronic Book," *… J. MULTI …*, 2020, [Online]. Available: https://multisciencejournal.com/index.php/ijm/article/view/76.

[8] A. Masry-Herzalah and P. Dor-Haim, "Teachers' technological competence and success in online teaching during the COVID-19 crisis: the moderating role of resistance to change," *Int. J. Educ. …*, 2021, doi: 10.1108/IJEM-03-2021-0086.

[9] S. Kaya and F. Dağ, "Turkish adaptation of Technological Pedagogical Content Knowledge Survey for elementary teachers," *Educ. Sci. Theory Pract.*, vol. 13, no. 1, pp. 302–306, 2013.

[10] J. H. Ling Koh, C. S. Chai, and L. Y. Tay, "TPACK-in-Action: Unpacking the contextual influences of teachers' construction of technological pedagogical content knowledge (TPACK)," *Comput. Educ.*, 2014, doi: 10.1016/j.compedu.2014.04.022.

[11] K. Machmud, "The Integration of Technology in a Decentralized Curriculum Setting: The Case of English as a Foreign Language (EFL) Instruction in Gorontalo, Indonesia," *ProQuest Diss. Theses*, 2011.

[12] T. Altun and S. Akyıldız, "Investigating Student Teachers ' Technological Pedagogical Content Knowledge (Tpack) Levels," *Eur. J. Educ. Stud.*, 2017, doi: 10.5281/zenodo.555996.

[13]   D. Pujianto, E. Emilia, and M. I. Sudarsono, "A process-genre approach to teaching writing report text to senior high school students," *Indones. J. Appl. Linguist.*, 2014, doi: 10.17509/ijal.v4i1.603.

[14]   P. Duffy, "Engaging the YouTube Google-eyed generation: Strategies for using web 2.0 in teaching and learning," 2007.

Kyai's Interaction with the Digital World in the Era of Society 5.0

Sholahuddin Al Ayubi[1]

Introduction

Information and communication technology (ICT) has rapidly evolved, significantly impacting society and business. In many countries, industrial policies will be based on digital transformation, generating new values [1]. In 2016 the Japanese government released information forming a better super-intelligent society. This is based on the Society 5.0 initiative, a specific cyber-physical system that aims to build a sustainable community and improve people's comfort and safety. [2], [3]. According to Vasja Roblek, society 0.5 is shaping and overcoming chaotic social change; this strategy is for Japan to respond to sociotechnology 4.0 in Europe, the USA, and including Chinese products. [4]. Of course, "society 5.0" encourages people to be more active in using digital technology to create opportunities to live meaningful lives.

To adapt to the era of society 5.0, digital technology is used to develop innovations that will open up various options for people to live better lives. Of course, the goal is to increase civilization and intelligence. [5]. The ability to adapt and create innovation significantly affects how good or bad everyone is in adapting to the times. Thus, humans must continue to innovate to stay ahead of building a new civilization.

But a fundamental paradox exists before our eyes that efforts to create a better "human-focused" society that will coexist with social robot tools that have AI (Artificial Intelligence) autonomy are realized. Gladden further [3] questioned the more sophisticated the means of this social robot, precisely who will become members of society 5.0 in it, which provides a systematic classification of the various types of human and non-human entities that can be expected to participate in Society 5.0, as well as an analysis of the dynamics of society that lead to the emergence of the entity.

Nabila [6] explains that the constantly changing theme is "society 5.0." In today's digital era, this expression is carried along with the advancement of science and technology. A goal that is

[1]Doctor Islamic studies, and his Research Interests are Anthropology and Religious Sociology, State Islamic University of Sultan Maulana Hasanuddin Banten, sholahuddin.alayubi@uinbanten.ac.id

expected to be a resolution to all social problems. A wise, intelligent, and human-centered (anthropocentric) society is an idea that was put forward by the Japanese government. This idea gave rise to several grand schemes, some of which have already been realized in the form of IoT (Internet of Things), big data, and AI (Artificial Intelligence).

In cyber-physical organizations where natural biological humans are the primary agents, social robots, smart cars, smart buildings, and other intelligence are synthetic entities. [7]. Of course, these artificial entities emerged due to the industrial revolution 4.0. According to Anton, the industrial revolution 4.0 is the basis of people's lives in the digital transformation of manufacturing in the use of digital technology, all of which are without limits, and the development of the internet and digital technology is not limited. [8]. Industry 4.0 is anyone can access it and take advantage of it.

Unlike the case with the primary human being as a natural human being, they tend to interact with each other, exchange ideas, and do social charity. One of these humans is a kai. The key is the central figure in the pesantren; in this case, Dhofier, as quoted by Luken-Bull [9], explains, " *Kyai is the most important element of a pesantren, the growth and resilience of a pesantren depend on the personal ability of the Kiya."* The kiai's figure is inseparable from his responsibility as the leader of the pesantren institution; the growth and development are in the Kiai's hands. The task of the Kiai is to teach Islam. They were especially teaching villagers who could not afford to send their children to madrasas or schools. This is done by the Kiai, who offer a place to study and serve in addition to education.[10]

Meanwhile, the kiyai is a figure who has received religious recognition (Islam) by having the authority to lead rituals and interpret religious doctrines, so there are many opportunities to play a role in the field of studying the yellow books. Not only are the books usually carried out in Islamic boarding schools as the curriculum, but the kiyai can also teach books about magic from that religion and transmit them to their students. [11]This article specifically focuses on the interaction and transformation between Kiai in implementing online Islamic studies. This activity is considered to acquire Islamic knowledge, conceptualized as da'wah in Islamic thought. [12].

Discussion
Digital Interaction and Transformation

Advances in technology and its users often neglect a critical factor because the world's technology advances rapidly with all the speed and speed of information and contact convenience. According to Reza Pahlevi (, internet penetration in Indonesia is increasing

yearly. In 2022 according to the Association of Indonesian Internet Service Providers (APJII), the Indonesian Internet Profile reached 77.02% in 2021-2022; the previous year, in 2018, Internet penetration reached 64 8%. [13] A significant figure in access and penetration to the internet of Indonesian people should not become consumers but as sure programmers who transform internet technology.

The term transformation has several meanings in terms of terminology. Diverse perspectives and investigations are responsible for this diversity. As a study material, some thoughts and attitudes of experts are given. [14] Dawan Raharjo explains the transformation. First, Transformation relates to a large-scale fundamental social movement from an industrial society to an information society. Both of these definitions of transition come from historical research, which concludes that over the past two or three centuries, there has been a significant shift from a traditional agrarian society to a contemporary industrial society. While "social" has to do with culture, it also has social connotations.[15]

Digital transformation is dramatically changing how work is organized, and people view their work, which is the effect of a meaningful experience. Furthermore, it can be shown that it is not the volume of digital work or the impact of digitalization itself but rather changes in the scope of activities that have consequences on perceptions of meaningfulness in the workplace, which can be linked back to company performance policies.[16]

Kyai Interaction Digital World: New Spiritualism

According to Hiroko Horikoshi, kyai can develop cultural communities with symbols that effectively organize unitary groupings in rural interiors, even when this kyai no longer live in villages but in large urban centers; The Kiai shape their society. A Kiai who serves people who impart Islamic knowledge to protect them from external challenges, such as secularism. Indeed, the information provided at the pesantren is rich in wisdom, morals, and honesty, so the cleric and the santri are always intertwined.[15], [17]

The rhythm of speech and body movements, such as nodding and gestures, are coordinated between the speaker and the listener in human face-to-face communication and within the speaker. The sharing of expression in human interaction results from this synchronization, or entrainment, in touch and is essential for human connection and communication. [18]. It is the same with the Kiai: the movement, speech, and even their writings are currently on the internet.

According to Saifuddin Zuhri Qudsy [19], with the passage of time and the development of internet technology and the online world, kyai and Islamic boarding schools have recently become aware of their existence in cyberspace. The expressions of the salaf and Khalaf pesantren become indistinguishable if the salaf adopts virtual technology. In line with Scott Allen Burrest [20], kiyai and pesantren as agents,s of building and directing modernization present kiyai and their relations, networks, and even pioneers. Allen quotes Cilford Geertz as saying that kyai and ulama are agents or intermediaries of rural and urban transformation.

Pesantren and Kiai have adapted to the ever-changing trend toward modernization. Fazlur Rahman said Islamic institutions have responded to modern developments through revivalism or fundamentalism, modern classics, and new and modern revivals [15]. The stages that the Kiai go through respond to modernization towards society 5.0. This ai views society 5.0 as a visionary plan for advancing science and technology rather than a blueprint for building a future community, and the evolution of modern science has reached the fifth phase [21]. Indeed Society 5.0 is in line to place the individual at the heart of innovation. Leveraging the influence of technology and the results of Industry 4.0 by increasing technology integration to improve quality of life, social responsibility, and sustainability [22].

Kyai must collaborate to create new ideas and values by collaborating with multiple systems, designing standardization, and implementing the necessary human resource development. Intellectual property standardization with information technology 4.0, but also the need to adopt an innovative and practical society 5.0 which simultaneously overcomes societal problems. However, at least the kiyai, as individuals who are struggling in the community, will have many opportunities to build innovation, growth, and prosperity; this must be essential collaboration, creation, and human interaction on the dynamics of social media and information technology.

On the other hand, the Kiai must also master social media, as an interaction with the general public (*jamaah*), with helpful content. Social media is usually characterized as an Internet-based platform centered on user-generated content. Technically, social media emerges from social networking sites that allow people to interact. The capacity of social media to connect users to news feeds and share photos and videos that users have enhanced makes it the most popular and desirable online platform, especially in Indonesia [12]. Digital media has concentrated exclusively on media practices [23]. For kyai to play a role in digital media is "New Spiritualism," namely religious ideas or techniques that become new media for kyai.

KH. Buya Syakkur, Gus Baha, and Gus Ulil have long played a role in the media, conveying religious messages through internet-based digital social media. Not only individuals who play a role in the use of digital media, Muhamaddiyah institutions on the @lensamu platform and @nuonline can share information on unions, and religion, especially Islam. Even the Muhammadiyah association already has a cyber and metaverse campus.

Kyai, with the theme of excellent content on social media that brings peace, comfort, and even the welfare of the *congregation,* is the content that is expected in the era of disruption by improving the quality of human resources, digital transformation, and course not stopping to innovate. And what needs to be anticipated from the progress of this civilization will be that it will cause various ethical, legal, *hoax*, social, and personal security problems that must be protected and protected.

Conclusion

Digitization opens up new perspectives for universities and can be one of the main drivers of their change. Incorporating the assumptions of Society 5.0 and Industry 5.0 into the practices and policies of the kayak's life will enable pesantren and kiyai, and *congregations* to fully benefit from digital transformation. Kyai and Islamic civilization, which includes nature and mankind, even in small things, must be declared as the initiator of society 5.0. Still, when faced with various conditions, of course, it is the condition of the people that must be fostered through various media platforms.

References

[1]   M. Fukuyama, "Society 5.0: Aiming for a New Human-centered Society," *Japan SPOTLIGHT*, vol. 2(1), no. August, 2018

[2]   C. Narvaez Rojas, GA Alomia Peñafiel, DF Loaiza Buitrago, and CA Tavera Romero, "Society 5.0: A Japanese concept for a superintelligent society," *Sustainability (Switzerland)*, vol. 13, no. 12. 2021. doi: 10.3390/su13126567.

[3]   ME Gladden, "Who will be the members of Society 5.0? Towards an anthropology of technologically posthumanized future societies," *Soc Sci*, vol. 8, no. 5, 2019, doi:10.3390/socsci8050148.

[4]   V. Roblek, M. Meško, and I. Podbregar, "Mapping of the Emergence of Society 5.0: A Bibliometric Analysis," *Organizacija* , vol. 54, no. 4, 2021, doi:10.2478/orga-2021-0020.

[5] R. Setyaningsih, A. Abdullah, E. Prihantoro, and H. Hustinawaty, "Implantation of digital communication ethics in Islamic boarding schools through the use of e-learning," *Journal of Communication Studies*, vol. 8, no. 1, 2020, doi:10.24198/jkk.v8i1.24538.

[6] N. Huringiin and A. Yasmin, "Islamic Worldview as The Basic of Islamic Society toward Society 5.0," *Al Qalam*, vol. 38, no. 2, 2022, doi:10.32678/alqalam.v38i2.5360.

[7] ME Gladden, "Strategic Management Instruments for Cyber-Physical Organizations: Technological Posthumanization as a Driver of Strategic Innovation," *International Journal of Contemporary Management*, vol. 16, no. 3, 2017, doi:10.4467/24498939ijcm.17.026.7546.

[8] MA Athoillah and ER Wulan, "Transformation of Islamic Boarding School Educational Models in the Industrial Revolution 4.0 Era," *National Proceedings*, vol. 2, no. November, 2019.

[9] RA Lukens-Bull, "The Pesantren Tradition: A Study of the Role of the Kyai in the Maintenance of the Traditional Ideology of Islam in Java. By Zamakhsyari Dhofier. Tempe: Arizona State University Program for Southeast Asian Studies Monograph series, 1999. xxxi, 254 pp. $19.95 (paper)," *J Asian Study*, vol. 59, no. 4, 2000, doi:10.2307/2659290.

[10] SC Yeoh, "Umara-ulama-ummah relations and pesantrens in Aceh Province, Indonesia: A study of the challenges to the authority of a traditional kiyai," 1994.

[11] S. al Ayubi, "Religious Texts in the Transmission of Magical Texts in The Society of Banten," *Journal of Holistic al-Hadis*, vol. 02, no. 02, 2016.

[12] D. Solahudin and M. Fakhruroji, "Internet and Islamic learning practices in Indonesia: Social media, religious populism, and religious authority," *Religions (Basel)*, vol. 11, no. 1, Jan. 2020, doi: 10.3390/rel11010019.

[13] R. Pahlevi, "APJII: Indonesia's Internet Penetration Reaches 77.02% in 2022," *https://databoks.katadata.co.id/datapublish/2022/06/10/apjii-penetrasi-internet-indonesia- achieve-7702-on-2022*, 2022.

[14] Compiler of the Dictionary of the Center for Language Development and Development, "Big Dictionary of the Indonesian Language," *Balai Pustaka*, 1990.

[15]   S. al Ayubi and M. Alif, "Online Ngaji Trends Building Kyai Authority in Social Media during the Covid 19 Pandemic," 2021.

[16]   F. Hardering, "From work 4.0 to meaning 4.0? On meaning at work in times of digital transformation," *Osterreichische Zeitschrift fur Soziologie*, vol. 46, no. 1, 2021, doi:10.1007/s11614-020-00439-4.

[17]   A. Humaeni, "Magic in The Local Democracy Process in Rural Banten: A Case Study of Muslim Community in Padarincang and Ciomas Subdistricts, Banten," *the 11th Annual Conference on Islamic …*, 2017.

[18]   T. Watanabe, "Human-entrained embodied interaction and communication technology for human-connected IoT design," *Journal of Advanced Mechanical Design, Systems and Manufacturing*, vol. 14, no. 2, 2020, doi:10.1299/jamdsm.2020jamdsm0025.

[19]   SZ Qudsy, "Online Islamic Boarding Schools: Shifting Religious Authority in the Virtual World," *Living Islam: Journal of Islamic Discourses*, vol. 2, no. 2, 2019, doi:10.14421/lijid.v2i2.2010.

[20]   S. Allen and SA Buresh, "Pesantren-based development: Islam, education, and economic development in Indonesia," *ProQuest Dissertations and Theses*, 2002.

[21]   Y. Harayama, "Society 5.0: Aiming for a New Human-centered Society Japan's Science and Technology Policies for Addressing Global Social Challenges Creating Innovation that Helps Solve Social Challenges," *Hitachi Review Vol. 66 No. 6*, 2017.

[22]   CM Ferreira and S. Serpa, "Society 5.0 and Social Development: Contributions to a Discussion," *Management and Organizational Studies*, vol. 5, no. 4, 2018, doi:10.5430/mos.v5n4p26.

[23]   CW Anderson, "Practice, Interpretation, and Meaning in Today's Digital Media Ecosystem," *Journal Mass Commun Q*, vol. 97, no. 2, pp. 342–359, Jun. 2020, doi: 10.1177/1077699020916807

Society Era 5.0 in The Perspevtive of Science Learning

Suciati[1]

Introduction

The industrial revolution 4.0 which is characterized by artificial intelligence that is able to transform a lot of data (big data) collected via the internet from various fields of life (internet of things). Furthermore, humans can easily access claud services (data base) to solve various social problems that are integrated in the virtual world and the real world [7]. The industrial revolution 4.0 is an era that makes technology as the center, has encouraged the emergence of disruptive turmoil that causes complex and ambiguous uncertainty [3]. This is feared to have the potential to degrade the role of humans which can erode the character values that have existed in society. The trend of online learning has eliminated the interaction between learning components: teachers, students, and other learning environments. This condition can not only degrade behavior patterns and community communication patterns, it can also foster individual, egois, indifferent attitudes towards other people and their academic environment.

Society 5.0 is a social trend in which humans become the center (human centered). The concept of society 5.0 was put forward by Japan who was worried about the impact of technological transformation. Society 5.0 was born as a counterweight as well as an anticipation of the waning of character values as a result of various technological innovations that have been feared by society. By placing humans as subjects in the current digital era, it is hoped that humans will not be trapped as slaves to technology.

Natural Science is a field of knowledge that is studied starting from the level of elementary, secondary, and in higher education. The implementation of science in learning in schools basically includes 4 aspects, namely: product (knowledge content as a result of learning science), process (how to acquire knowledge through a series of science process skills); character/attitude (scientific attitude that is built after doing the science process); application (application of science to solve problems in everyday life) [1]. Thus, science learning has a very strong relevance to the concept of society 5.0 which

[1] University Sebelas Maret, Surakarta, suciatisudarisman@staff.uns.ac.id

emphasizes human aspects. Science is not only a field of science that underlies the development of technological innovation, but can also be a strategic vehicle for developing the values of a scientific attitude as possessed by a scientist at work such as: honest, responsible, caring, mutual respect, etc.

Discussion

The industrial revolution 4.0 was characterized by the use of modern technology known as nine pillars including: 1) Internet of Things (IoT) where everything is connected to the internet. There is no need for interaction with humans; 2) Big Data, where we are dealing with the use and storage of very large data both in terms of volume, variety, value; 3) Vertical and Horizontal Integration, which is a system that has been integrated automatically. Example: integration of online messages & their payments, integration of data from sensors in the field, etc.; 4) Cloud Computing, namely a sophisticated software installation system in a faster way and at a lower cost; 5) Augmented Reality and Virtual Reality, namely the use of devices capable of bridging between software and hardware; 6) Additive Manufacturing (3D Printing), which is a technology that can be utilized for making a prototype of a product; 7) Autonomous System, namely the communication system of one element with other elements independently; 8) Simulation, namely a simulation system that is connected to the real system, so that it can be parallelized with its operational form, so that the results are more precise; 9) Cyber Security, which is a cyber security system [6].

The emergence of the trend of using modern technology has ushered in the digital era where people cannot be separated from the use and utilization of information and communication technologies (information and communication technologies). It is easier for the public to access information through various digital technology platforms that offer various innovative features from an increasingly interactive information medium. All aspects of people's lives are integrated with information technology (internet). The intense use of communication technology has introduced people to communication technologies that previously did not exist, such as: business communication (use of customer service applications), e-commerce (providing services for products and goods via on-line in a website or application), financial technology (digital wallet), perform various transactions using only a smartphone. Thus, there are three characteristics of the digital era, namely: high competition (tight competition), fast growing, high efficiency (efficient). Thus, the digital era society has the following characteristics: 1) a network society; 2)

people who have a social structure in the form of a network with micro-electronic technology based on digital information & communication technology; 3) all activities that support life are made easier by the presence of advanced technology; 4) use technology in all aspects of life; 5) the need for information is very high; 6) spatial or connected with location towards the organization of space and time; 7) the need for manpower in the field of information and communication is high. The industrial revolution 4.0 is an era that makes technology the center of all activities. This encourages the emergence of disruptive turmoil that causes complex and ambiguous uncertainty. This condition encourages a shift in mindsets, behavior patterns, and attitude values in various aspects of people's lives, including the field of education. In this case, [2] states that digital transformation will create new values and become a pillar of industrial policy in many countries. This situation is feared to have the potential to degrade the role of humans, which causes the character values that have existed in society to fade. This concern prompted the birth of the concept of society 5.0, where humans are not only objects of technology but also become the center in the use of technology (human centered). Society 5.0 is also intended to balance so that in the midst of various modern technological innovations, humans are not trapped as slaves to technology. The concept of society 5.0 was born as a counterweight as well as an anticipation of the waning of character values that have been a concern so far as a result of various technological innovations.

In the context of education, the industrial revolution 4.0 and Society 5.0 is a very difficult challenge. It is necessary to transform education covering eight national education standards. It is necessary to build a new paradigm of education management towards information technology-based education to support the implementation of a learning system in the industrial revolution 4.0 and society 5.0 in order to produce superior human resources[12]. Natural sciences is a field of science that studies objects and phenomena of the universe that are obtained scientifically and systematically using the scientific method through discovery as well as the attitude of scientists in working scientifically [4]. In the curriculum, it is stated that science is a field of science that is studied starting from the primary and secondary education levels. In accordance with the nature of learning, science is taught by emphasizing on 4 aspects, namely: process, product, attitude, and application. First, science as a product means knowledge content as a result of science learning which can be in the form of: facts, concepts, principles, laws, theories, etc.; Second, science as a process, namely a

way of acquiring knowledge through a series of science process skills, for example: proceeding through experiments, observations, measurements, calculations, etc.; Third, science as an attitude character, namely a scientific attitude that is developed after carrying out the scientific process; Fourth, science as an application, namely the application of science to solve problems in daily life [1]. This is relevant to [10] statement that science is not just a collection of facts or concepts, but a process of continuous interaction with the environment through the scientific method as a way of asking and answering questions about the universe. In the science learning curriculum, it is also defined as science related to how to find out information about the universe scientifically and systematically, so that it is not only an assignment or knowledge collection in the form of facts, concepts, and principles, but is a process of discovery [4].

Science has a strong relationship with technology, because science is a field of science that emphasis the development of technological innovation. Various technological innovation products are developed based on the development of natural science in terms of physics, chemistry and biology. How the steam engine works is an example of technology that uses the concepts of physics, chemistry and biology. Therefore, technology is often referred to as an applied product of natural sciences. In addition, science in accordance with the nature of learning is also a strategic vehicle for developing the values of a scientific attitude. When a scientist works using a series of process skills, attitudes as a scientist will be built in work such as: honest, tenacious, disciplined, responsible, caring, respect, etc. ([8], [5], [11]).

In the context of society 5.0, where the humanist aspect is highly emphasized. Humans are the center or controller in innovating with technology. As a technology controller, you are required to be wise or have a good scientific attitude as a scientist at work such as: honest, responsible, caring, mutual respect, able to work together, independent, critical, creative, etc. Science is not only a field of science that underlies the development of technological innovation, but science can also be a strategic vehicle for developing the values of a scientific attitude as possessed by a scientist when working. Thus, learning science science has a very strong relevance to the humanist concept in society 5.0.

Conclusion

Based on the description above, it can be concluded that in the perspective of learning science, society 5.0 has very strong relevance. The humanist aspect which is the emphasis on society 5.0 can be grown through science learning in schools. Scientific

approaches and the application of science learning models based on discovery, inquiry, problem solving and project models loaded with science process skills are very strategic for cultivating humanist character values.

Referrences

[1] R. I. Arrend, Learning to Teach. Yogyakarta: Pustaka Pelajar, 2016

[2] M. Fukuyama, Society 5.0: Aiming for a New Human-Centered Society. Japan SPOTLIGHT, 47-50, 2018.

[3] Japan Business Federation, "Toward Realization of The New Economy and Society," *Keidenren Policy & Action*, vol. 2016, pp. 1–25, 2016, [Online]. Available: http://www.keidanren.or.jp/en/policy/2016/029_outline.pdf.

[4] Kemendikbud. Diklat Guru Dalam Rangka Implementasi Kurikulum 2013. Jakarta: Kemendikbud. 2014.

[5] A. E. Khalick, L. N. G. Fouad, and A. P. Le, Representation of Nature of Science in High School Chemistry. Texbook Over The Past Four Decades. *Journal of Research in Science Teaching, 45*(7), 835-854, 2008.

[6] A. Munanda, (2019 Januari 21) Dunia Pendidikan Menuju Revolusi Industri 4.0. Retrieved Januari 21, 2019. https//www.Biem.Co/Read/2019/01/21/33919/Tb-Ai-Munandar-Dunia-Pendidikan-Menuju-Revolusi-Industri 5.0/

[7] A. Rouf, Reaktualisasi dan Kontekstualisasi Kearifan Lokal dengan Manhaj Global: Upaya Menjawab Problematika dan Tantangan Pendidikan Era Society 5.0 dan Revolusi Industri 4.0, *Prosiding Seminar Nasional Pascasarjana UNNES*, 2019, 910-914,Semarang: Program Pascasarjana UNNES.

[8] N. Rustaman, *Strategi Belajar Mengajar Biologi*. Malang: UM Press. 2005

[9] P. Skobelev, & Y. S. Borovik, . On The Way from Industry 4.0 to society 5.0: From Digital Manufacturing to Digital Society. *International Scientific Research Journal "Industry 4.0",* 307-311. 2017.

[10] J. Trevil, and R. M. Hazen, *The Science an Integrated Approach. Seventh Edition*. United Stated of America: John Wiley & Sons, Inc. 2013.

[11] B. Waldrip, V. Prain, and Corolan. *Using Multimodels Representation to Improve Learning in Junior Secondary Science. Research Science Education*, 40, 65-80. 2010. DOI: 10.1007/s11165=009-9157.

[12] Ni Nyoman, P. E. Pihung, Mengembangkan Pembelajaran Digitalisasi di Era Society 5.0. *Jurnal Pendidikan*. Vol. 23 No.2 (Oktober, 2022) 378-388. 2022 https://doi.org/10.5281/zenodo.7190220

(In)directness of Kindergarten Teachers' Directive Speech Acts in the Teaching Learning Process in Yogyakarta: A Classroom Parenting

Surono[1]

Introdoction

Teaching kindergarten students is similar to giving parental directions since they are still children. Kindergarten teachers use a lot of directive speech acts (DSA) during instructing. The DSA can be created directly or indirectly with regard to the task for the class's circumstances. Within the context of conversation in kindergarten class, indirect speech acts can be employed [1]. As a result, when teaching kindergarten students, the directness or indirectness of the DSA is a crucial factor to consider for parenting. Parenting is a process of mental and spiritual formation in children aimed at promoting positive growth and producing desired behavior [2], is a difficult activity. Then, parenting is a multifaceted process that involves parental responses, controls, and beliefs [3]. Physical, emotional, social, and intellectual factors are also important aspects. [4]

Parenting can be accomplished in a variety of ways, including through the use of language. Children can use language to communicate with others, convey personal desires, aid their mental processes and behavior, express feelings, and even modify their emotional state [5]. Teachers can shape kindergarten children in cognitive, affective, and psychomotor aspects by utilizing parenting language in the form of directive speech acts. This is in accordance with Minister of Education and Culture Regulation No. 137, on National Standards for Early Childhood Education as stated in Chapter I Article 1 point 2. It is concerned with religious and moral values, physical-motor, cognitive, language, socio-emotional, and artistic aspects of children's growth and development [6]

Parenting languagehas distinct qualities from other varieties of language[7]. However, depending on the predominant local culture, certain qualities may be introduced. Kindergarten teachers must use appropriate DSA to form the children's personality and character in the framework of parenting. DSA produced by teachers can be realized directly or indirectly. These two ways imply the politeness nuances of the teachers' directives in the classroom. In addition, they can take

---

[1] English Education Department, Graduate School of Universitas Ahmad Dahlan, Yogyakarta

different sentence modes, namely imperative, declarative, and interrogative. Thus, the (in)directness of the kindergarten teachers' DSA is influential in classroom parenting.

Many previous researchers conducted similar studies, that is, concerning the kindergarten teachers' DSA, parents' DSA for children in general, and DSA in other speech events. Among others were Rahardi [8], Prayitno [9], Ardianto [10], Elmita, et al. [11], Yuliarti, et al. [12], Rachman [13], Sumiatun [14], and Rukmana et al. [15]. However, they did not specifically focus on the directness and indirectness of DSA, though implicitly some of them showed already. Therefore, this present study is intended to reveal the sentence modes employed by the kindergarten teachers in classroom parenting and to describe the (in)directness of the kindergarten teachers' DSA.

Some underlying theories were used to offer the solutions. They were ethnographic research model and theories of pragmatics, pragmalinguistics, and the principles of politeness (PP). Pragmatics is the study of the grammaticalized and coded interaction between language and context in the structure of language [16], [17] Meanwhile, pragmalinguistics is the study of specific sources found in language that are used to express illocutionary acts[18], one of which is DSA.

Declarative refers to speech patterns or sentences in which the subject comes before the predicate and serves to make a statement or offer information. Imperative is a type of speech that begins with a verb and has the purpose of commanding others to do something. Interrogative, on the other hand, is communication that serves as a request for information or explanation. The imperative sentence mode, which has a clear and straightforward nuance with a specific objective, is the most common form of direct speech act. Meanwhile, indirect speech acts are frequently expressed in the form of declarative and interrogative sentences with non-stressing nuances and a clear goal. [19] Then, speech politeness is related to speech directness and indirectness in numerous ways. [20],

Finding And Discussion
Kindergarten Teachers' DSA in the Classroom

The types of sentences produced by the kindergarten teachers in the classroom are crucial to consider since they determine the politeness nuances regarding the parenting. DSA in the forms of imperative, declarative, or interrogative have different effects on the children. They get worse when they are produced using inappropriate prosody especially intonation and stress. The directive power of the statement varies depending on its style [21]. In imperative or

command, directive power is obvious, but declarative and interrogative have less directive power. However, this lack of assertiveness has a favorable impact on the directive speech act's politeness level. Figure 1 below shows how the three utterance modes were used by the kindergarten teachers in the teaching learning process.
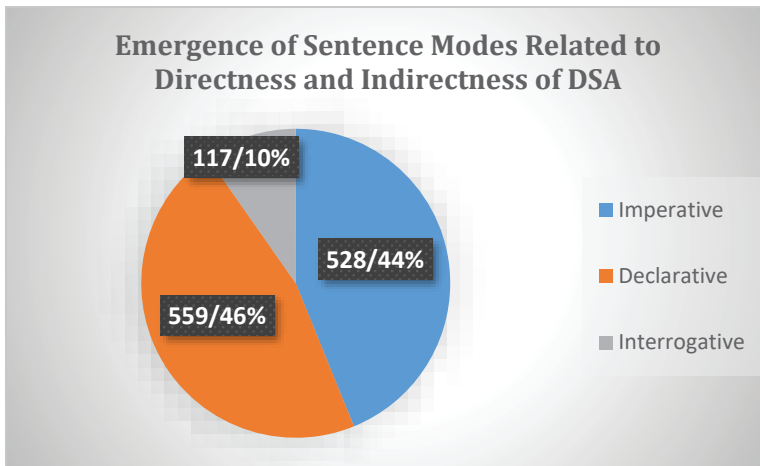

Emergence of Sentence Modes Related to Directness and Indirectness of DSA

117/10%

528/44%

559/46%

Imperative

Declarative

Interrogative

Figure 1. Emergence of Sentence Modes Related to (In)directness of DSA Produced by Kindergarten Teachers in Yogyakarta

Referring to figure 1 above, it can be understood that during the teaching learning process, kindergarten teachers produced 528 (44%) for imperative, 559 (46%) for declarative, and 117 (10%) for interrogative. Because of the necessity to control more than one activity in one speech scenario, kindergarten teachers in Yogyakarta can make more than one type of sentence in a series of speech acts. All those DSA are produced in terms of parenting purposes. It can be seen that the maximum frequency belongs to declarative mode which is included in indirect DSA for the sake of parenting. In addition, it is emphasized by the occurrence percentage of interrogative mode, namely 10%, which is also indirect DSA. In total, the indirect DSA show 697 (56%) which truly indicates that the indirect DSA are more dominant for parenting. On the other hand, the direct DSA also show high enough, namely 528 (44%) although they are still lower than the indirect DSA. However. Whatever the sentence modes of DSA

produced by the kindergarten teachers, they are meant to provide the parenting for the students

Imperative Mode of DSA

Imperative sentences are statements that contain orders that beg or forbid someone to do something. The emergence of the imperative sentence mode (528 or 44%), which occurs frequently after the declarative sentence mode (559 or 46%), cannot be linked to impoliteness subtleties. Due to the fact that there are some vital sorts of communication that are missing or disrespectful, this amount is insignificant. In imperative, for example, using the welcome phrases such as *dear, pious child, friend, great child*, and the like eliminated the nuance of impoliteness. Concerning the imperatives it was already conducted a research focusing only on imperative especially imperative politeness[8]. This is, of course, different from the present study though there are shared points. Meanwhile focused his research on types of DSA produced by elementary school students [9]. Imperatives are only a small part of his research. The following utterance shows the example produced by a teacher (T).

(1) *Masih berdiri. Yok masih berdiri. Kita senam dulu. Berdiri. Berdiri. Biar tidak mengantuk. Berdiri ta, Le. Yo kita pingin seperti pohon jambu lagi*. 'Still standing. *Yo*k still standing. Let's exercise first. Stand up. Stand up. Let's not sleep. Stand *ta, Le. Yo* we want to be like a guava tree again. (T1)

T1 creates DSA with various imperative sentences in utterance (1), such as **Still stand, *Yok* still stand, and Stand. Stand up *ta, Le*.** Short sentences with simple verbs and modality factors make up these imperative sentences. T1's phrase structure and pattern are based on repetition, with politeness affirmation words such *yok* and *ta*, as well as the parenting address term *Le*. The utterance, which includes multiple types of imperative sentences, is delivered with the goal of re-engaging the children after they have been tired by a series of teachings. Another example is provided below.

Declarative Mode of DSA

Declarative sentences can be defined as sentences that convey facts, statements, or opinions to report an event [19]. They are non-coercive, and have a neutral or flat tone. In other words, they are less forceful in command [21]. This type of sentence mode was most

frequently produced by the kindergarten teachers in Yogyakarta to indicate the less forceful command. This is the example.

(2) *Sekarang tugasnya, kita ke depan sana mengamati gambarnya dulu. Semua menghadap ke gambar. Tugasnya.. sini nak. Kamu lihat disini gambar apa nak* 'Now the task, we go ahead and observe the picture first. All see the picture. The task is here, Son. Look what picture it is' (T2)

T16 in TK KB which has a public-private mission demonstrates the fact by utterance (2) above. The parenting task consists of two types of declarative statements in (2). They are "We go ahead and observe the picture first" and "All see the picture". Despite the lack of a politeness marker, it is clear that utterance (2) is courteous based on declarative sentence qualities. In fact, T16 utilized flat intonation in uttering (2), which is included in literal direct speech act, so that the order does not appear coercive. T2 applied Javanese politeness called *sumanak* or friendly [22].

Interrogative mode of DSA

Interrogative sentences are used to inquire about something or to demand an explanation. In other words, interrogative sentences are those that contain questions and are used to obtain information from other individuals. However, in the context of DSA, the interrogative sentence also contains a speaker's (kindergarten teachers) illocutionary act, which must be followed up by the interlocutor (children) in the form of action. As an indirect directive, the interrogative sentence is polite because it is not stressful [20]. The following is the example.

(3) *Kok siang kenapa? Hayo bangunnya siang kenapa? Nonton TV?* 'Why did you come late, why? Hey, why did you get up late? Watching TV? (T3)

T3's utterance above contains three interrogative sentences in a single utterance sequence which seemed to reprimand and greet. T3's usage of question words and the intonation or questioning tone indicated that the speech act incorporated the interrogative sentence mode. T3's question boiled parenting down to this: T19 wants the child to avoid watching TV until late at night so that he can get up early and not be late for school. Thus, utterance (3) can be considered an indirect literal speech act [19].

The (In) Directness of The Kindergarten Teachers' DSA

Directness and indirectness of DSA are closely related to the sentence modes of the speech acts. As stated previously, there three types of sentence mode of DSA, namely imperative, declarative, and interrogative [21]. Imperative is greater in force for the interlocutors than the other two. Thus, imperative leads to directness of DSA while declarative and interrogative lead to indirectness of DSA [18]. In addition, directness tends to be less polite, while indirectness tends to be more polite.

The factual phenomena of Yogyakarta kindergarten teachers' DSA showed that the DSA were indirect. It implied that they produced DSA more politely. This is reasonable due to the fact that they taught children who still required parenting and that they taught in the kindergartens which were located in Yogyakarta where politeness cultures are accustomed to the people [22]. As a general understanding, the following pie chart can be used.

The Directness of Kindergarten Teachers' DSA

(4) *Coba Cika betulkan bagaimana angka empat. Nah yang ini benar enggak angka empat? Eh Del, Ardel. Yok lihat depan. Yok dihitung. Eh Raka, gak boleh gitu to.* 'Cika, try to correct the number four. So, is this number four right? Hey Del, Ardel. No, look ahead. Please count. Eh Raka, you can't do that'. (T4)

T4 in utterance (4) above produced DSA sub-DSA prohibition it. When T4 taught equations in mathematics and asked a child named Ardel to come to the front of the class to write down the number according to the number of pictures, most of the other children were busy and talking to themselves, including Raka. Even Raka was considered disturbing his friend who was sitting nearby, so T4 banned Raka by producing a sub-DSA prohibition: '**Eh Raka, you can't do that**'. Though seemingly declarative, the utterance is direct DSA [18]. Things like these develop a teacher's parenting pattern, where students should not be busy for themselves and interfere with each other when attending the learning process in the classroom. The following is another example.

(5) Nabila! Adin! Vira! Nabila! Adin! Vira! Nabila! Adin! Vira! (T5 and the students)

In utterance (5), T5 and the other children encourage the three children who participated in a good helmet-wearing competition to try to win it. They encourage by saying **Nabila! Adin! Vira! Nabila! Adin! Vira! Nabila! Adin! Vira! Nabila!** This utterance was created to motivate Nabila, Adin, and Vira who were competing in the competition. T5's utterance seeks to instill positive behavior in children, particularly when they participate in competitions. A task that is completed with great enthusiasm will yield the best results.

The Indirectness of Kindergarten Teachers' DSA

(6) *Yang cantik di sini. Yang cowok di sini aja. Bikin kereta satu-satu. Rambutnya dibasahi dulu ya.* 'The beautiful ones are here. The boys are here. Make a train like row. The hair is made wet first (T6)

Because the space to wash their hair was restricted, the teacher prepared for students to line up to queue when carrying out life skills learning outside the classroom with shampooing activities (washing hair). The teacher instructed the students to form a line by gender. The utterance did not appear to put pressure on the children as the interlocutors to form a line, but rather seemed polite and complimented, with the use of *beautiful* terminology for females and boys' vocabulary for males. Thus, the children perceived the nuances of the request that dif not place pressure on them as a type of parenting.

(7) *Makannya sambil duduk, Sayang.* 'You eat while sitting down, Honey' (T7)

When the teacher discovered a child eating (chewing food) while standing near his friend while participating in a life skill exercise, he was advised to sit down. T7 employed a warm greeting to the child, therefore this declarative and indirect mode of speech did not appear to put too much pressure on the interlocutor to reveal his response [18]. The nuances of politeness and nurturing are very clearly obvious in utterance (7).

Conclusion

Based on the discussion, it can be concluded that the sentence modes used by the kindergarten teachers of Yogyakarta employed three types. They were imperative, declarative, and interrogative with

different appearance. In essence, all those sentence modes were used for parenting. The number of indirectness appearance was greater than the directness one. However, the direct utterances were still in the frame of polite parenting. It implies that whatever sentence modes produced by the kindergarten teachers, they must be addressed to classroom parenting.

References
[1]   N. K. Kravchenko, Indirect speech acts via conversational implicatures and pragmatic presuppositions. *Cognition, Communication, Discourse*, 14, 2017, 54-66. https://periodicals.karazin.ua/cognitiondiscourse/article/view/9534

[2]   E. Khodadady, & B. Hadizadeh, Parenting and English language learning at Iranian grade one senior high schools: A theoretical and empirical approach. *Journal of Language Teaching and Research*, Vol. 7(4), July 2016, 700-708. DOI: http://dx.doi.org/10.17507/jltr.0704.09

[3]   N. Im-Boltera, Z. Y. Zadehb, & D. Ling, Early parenting beliefs and academic achievement: The mediating role of language. *Early Child Development and Care,* Vol. 183(12), 2013, 1811–1826, http://dx.doi.org/10.1080/03004430.2012.755964

[4]   S. Yousaf, The relation between self-esteem, parenting style and social anxiety in girls. *Journal of Education and Practice.* Vol.6(1), 2015. 140-142.

[5]   Y. Rachmawati, & E. Kurniati, *Strategi pengembangan kreativitas pada anak usia taman kanak-kanak.* Prenada Media Group. 2010.

[6]   Menteri Pendidikan dan Kebudayaan. *Peraturan Menteri Pendidikan Dan Kebudayaan Republik Indonesia Nomor 137 Tahun 2014 Tentang Standar Nasional Pendidikan Anak Usia Dini,* Kementrian Pendidikan dan Kebudayaan Republik Indonesia, 2014. https://portaldik.id/

[7]   S. Dardjowidjojo, *Psikolinguistik: Pengantar pemahaman bahasa manusia*. Yayasan Obor Indonesia. 2003. http://journals.ums.ac.id

[8]   R. K. Rahardi, *Sosiopragmatik: Kajian imperatif dalam wadah konteks sosiokultural dan konteks situasionalnya*. Penerbit Erlangga. 2009.

[9]   H. J. Prayitno, Perwujudan Prinsip Kerjasama, Sopan Santun, dan Ironi Para Pejabat dalam Peristiwa Rapat Dinas di Lingkungan Pemkot Berbudaya Jawa. *Kajian Linguistik dan Sastra*, Vol. 22(1), 2010, 30-46.

[10] Ardianto. Tindak Tutur Direktif Guru dalam Wacana Interaksi Kelas Anak-Anak Tunarungu. *LITERA*. Volume 12(1), April 2013, Available : https://journal.uny.ac.id/index.php/litera/article/view/1318

[11] Elmita, W. Ermanto, & E. E. Ratna, Tindak Tutur Direktif Guru Dalam Proses Belajar, 2013.

[12] Yuliarti, Rustono, & A. Nuryatin, Tindak Tutur Direktif dalam Wacana Novel Trilogi Karya Agustinus Wibowo. *SELOKA 4*(2), 2015. Available : http://journal.unnes.ac.id/sju/index.php/seloka

[13] Rachman. (2015). Tindak Tutur dalam Proses Belajar-Mengajar Pada Taman Kanak-Kanak Dharma Wanita Kelurahan Wapunto Kecamatan Duruka Kabupaten Muna (Kajian pragmatik). *Jurnal Humanika*, Vol. 3(15), Desember 2015. http://ojs.uho.ac.id

[14] Sumiatun. Tindak tutur direktif guru dan siswa dalam pembelajaran di kelas III SDN Tipo Palu. *e-Jurnal Bahasantodea*, Volume 4(1), Januari 2016, 104-112. 2016. http://jurnal.untad.ac.id

[15] F. H. Rukmana, Suryadi, & I. Diani, (2017). Tindak tutur guru dalam pembelajaran Bahasa Indonesia di kelas VII Tunagrahita SMPLB Dharma Wanita Persatuan Provinsi Bengkulu. *Jurnal Korpus, Volume 1*(1), Agustus 2017, 58-67. 2017. https://ejournal.unib.ac.id

[16] S. C.Levinson, *Pragmatics.* Cambridge University Press. 1983.

[17] R. E. Sanders, The duality of speaker meaning: What makes self-repair, insincerity, and sarcasm possible. *Journal of Pragmatics*, *48*(1), 112–122. 2013. https://doi.org/10.1016/j.pragma.2012.11.020

[18] G. Leech, *Principles of Pragmatics.* Longman Group Ltd. 1983.

[19] Sumarlam, S. Pamungkas, & R. Susanti, *Pemahaman dan kajian pragmatik*. Bukukatta. 2017.

[20] G. Leech, *The Pragmatics of Politeness.* Longman Inc. 2014.

[21] C. W. Kreidler, *Introducing English semantics.* Routledge. 1998

[22] S. Poedjosoedarmo, Language Propriety in Javanese. *Journal of Language and Literature*. Volume 17, 1 - 9. 2017. https://e-journal.usd.ac.id

The Principal's Role as Supervisor In Improving the Quality of Learning

Tri Yuni Hendrowati

Introduction

School is an organization, a gathering place for individuals who collaborate to achieve a common vision and goals for each member who is a member of it. Sometimes it is difficult to reach the goal. The principal's responsibility in making decisions at school must be good and right decisions and be able to solve the problems at hand. Because every decision taken by the principal affects the sustainability of the school [1]. The principal, who holds the highest position in the school organization, is responsible for a variety of duties and responsibilities. Principals develop standardized education curricula, survey teaching strategies, screen student achievement, encourage parental involvement, review approaches and methods, manage budgets, contract, and evaluate staff, and manage facilities [2].

Optimizing the role of the principal is a mainstream that must be done at this time, in the era of independent learning, his role must be moved in such a way as to improve the quality of education. The success of the principal shows that the principal is someone who determines the center point and rhythm of a school. According to Suparman [3], the principal is a functional teacher who is given the task of leading a school where the teaching and learning process is held or a place for interaction between teachers who give lessons and students who receive lessons. The success of an educational institution is highly dependent on the leadership of the principal [4], [5], [6]. Because the principal as a leader in his institution. So, he should be able to bring his institution in achieving the vision and mission, and able to see the chance and see the future globalization well [7], [8].

In the era of independent learning, improving the quality of teachers and school principals through improving the recruitment system, improving the quality of training, assessment, and developing learning communities/platforms, is one of the 10 (ten) new education policies contained in the Indonesia Education Roadmap 2020 – 2035 because of the renewal of the previous education system. The principal's role as supervisor is related to teacher development for teaching improvement . The principal has a strategic role in influencing, encouraging, directing, guiding, and mobilizing all school members.

The principal must have a strategy to improve the professionalism of the education staff in his school, because the presence of professional educators greatly affects the quality of learning in the school [9]. To improve and improve the quality of learning in schools, the principal carries out academic supervision [10]. Improving the quality of learning is the foundation of professional academic supervision. It appears that to improve the quality of learning in schools, school principals are required to implement academic supervision of educators to be able to improve teacher competence and improve the quality of learning.

The success of an educational unit is highly dependent on the leadership of the principal. Principals have several important roles, namely as evaluators, leaders, supervisors, innovators, motivators, managers, and as administrators [11]. The principal plays a very important role in realizing quality learning, through the preparation of relevant strategies related to conditions in improving the quality of learning [12]. Principals a leader must also have the right strategy in order to improve the quality of learning, both in terms of infrastructure and so on [13].

Discussion

Quality schools are expected to be able to produce superior, reliable, and quality human resources. The creation of quality human resources cannot be separated from the education held in schools. The school is an institution designed for the teaching of students under the supervision of educators/teachers. The government is continuously trying to find the right formula to improve the quality of education in Indonesia through improving the quality of teachers as the front line in improving the quality of Indonesian people. Teachers become important role model in determining the achievement of the goals of the teaching and learning process so that the quality of education in schools is largely determined by the involvement of teachers in the teaching and learning process. In carrying out his duties as an educator, there is a need for supervision, so that educators clearly know the extent to which their performance as educators is in improving the quality of education in schools.

Purpose of Education Supervision

Supervision aims to provide services and assistance to develop teaching and learning situations in the classroom. Supervision aims not only to provide services to teachers when they need guidance when experiencing difficulties in teaching and learning activities, but also when the teacher wants to carry out continuous self-development

both individually and in groups [14]. The principal is not just a position but is a professional career with the main tasks and functions that have been regulated in Permendikbud No. 40 of 2021. The role of the principal as a supervisor must be realized in the ability to compose and implement educational supervision programs and take advantage of the results. The interaction performance of the principal as a supervisor in educational supervision activities is shown through: 1) supervisor's behavior in providing services to teachers which is called professional development by providing reinforcement in teacher teaching behavior; 2) supervisors help grow teacher professionalism by increasing the intensity of supervisor services to teachers; and 3) supervisors help foster teacher professionalism, so that teachers can help students achieve their learning expectations by using techniques that are in accordance with their learning guidelines.

Principles of Educational Supervision

As a supervisor, the principal must understand and implement the following supervisory principles: 1) consultative and collegial relationships, not hierarchical. Develop a joint effort or according to the supervision term 'sharing of ideas, sharing of experience', providing support or encouragement, stimulating teachers, so that they feel they grow together; 2) implementation of democratic supervision activities. Guidance services provided to teachers are based on close human relations, which foster a sense of security and comfort to develop their duties; 3) implementation of supervision activities centered on teachers and education staff/school administration staff. The main activity of supervision is to provide guidance to school personnel in general and especially to teachers, so that the quality of learning can be improved; 4) implementation of supervision is carried out based on priority needs. Implementation of supervision based on the needs of teachers related to the objectives, materials, techniques, methods, and environment needed in the smooth implementation of the learning process; 5) supervision is carried out in a professional manner. Supervision must lead to the professionalism of teachers in teaching.

The principal guides teachers in choosing and using what learning strategies or techniques will be used to increase the potential of students. Specifically, the implementation of supervision activities is carried out effectively through the following activities: 1) helping teachers to clearly see the relationship between learning outcomes and educational goals; 2) assisting teachers in preparing learning plans to be carried out; 3) assisting teachers to be better able to guide the learning experience and learning activities of students; 4) assisting

teachers in utilizing and using relevant learning resources and learning media, in an effort to achieve the planned learning outcomes; 5) assisting teachers in implementing more efficient and effective teaching methods and techniques; 6) assisting teachers in analyzing learning difficulties and student needs; 7) assist teachers in assessing the teaching and learning process and student learning outcomes; and 8) assisting teachers in managing the classroom, so that the learning process runs smoothly so that quality education can be achieved

Principal's Role as Supervisor

The principal as a supervisor is obliged to foster teachers to become good educators and teachers. The role of the principal as a supervisor: 1) as a principal supervisor strives for teachers to be more serious and enthusiastic and responsible in teaching and learning activities; 2) as a principal supervisor function to provide direction, guidance, service, and supervision. Ade Lisna and Erni Munastiwi [15] found that the principal's role as a supervisor to improve teacher professionalism was: 1) visiting classes where learning was taking place; 2) observing the state of learning in class; 3) interviewing teachers. Jasmani Asf & Syaiful Mustofa [16] stated that the supervisor's role is to provide guidance, direction, and guidance for the teaching and learning process of teachers for improvement.

Permendikbud Number 40 of 2021 concerning the assignment of teachers as school principals, among others, explains the implementation of the principal as a supervisor for teachers and education staff in the education unit he leads. The principal as a leader holds the responsibility and plays an important role in the success of the teaching and learning process in schools [17]. The principal plays a role in achieving educational goals and is always influential in all matters relating to the needs of teachers and the needs of students in schools [18]. To realize the achievement of learning, which is marked by increased student learning outcomes, it is necessary to have the role of the principal as a supervisor to the teacher [19], [20]. This is because the teacher plays a direct role and interacts directly with students during the teaching and learning process in the classroom. Principal supervision has a significant influence on the performance of junior high school mathematics teachers in Padang Panjang City [21].

The principal carries out two supervisory activities, namely managerial supervision, and academic supervision. Managerial supervision is aimed at all school administrative activities, while academic supervision is more directed at improving the quality of learning [22]. Managerial supervision is an effort to aid provided by supervisors to educators and education staff in the context of coaching,

assessment, and guidance starting from program plans, processes, to evaluations, results, and activity reports. Managerial supervision activities in education management relate to aspects of school management that are directly related to improving school efficiency and effectiveness which include: 1) planning; 2) coordination; 3) implementation; 4) assessment; 5) principal competency development and other staff. Academic supervision is one of the principal tasks of the principal to improve the quality of education on an ongoing basis in schools. Through academic supervision, it is hoped that the academic quality carried out by teachers will increase, the development of abilities in this context should not only be interpreted narrowly, only emphasizing on increasing the knowledge and teaching skills of teachers, but also on increasing commitment or willingness or teacher motivation, because by increasing the ability and work motivation of teachers, the quality of learning will increase [23].

As a leader, the principal has the task of being an academic supervisor in advancing learning through improving the ability of teachers [24]. The principal in carrying out his role as supervisor in the academic field in improving the pedagogic competence of teachers can be done through planning, implementation, and follow-up activities. Academic supervision planning activities include making a supervision schedule and compiling supervision instruments. Implementation activities include conducting class visits, conducting class observations, involving teachers in meetings related to learning, conducting group discussions, involving workshops related to learning, providing consultation time. [25]. Academic supervision activities are planned activities aimed at the qualitative aspects of schools by helping teachers through support and evaluation of the learning process so that learning objectives can be achieved [26]. The existence of academic supervision carried out by the principal has a positive impact on the teacher, the teacher will feel satisfied if the performance that has been carried out in the learning process gets appreciation or input from the principal to improve the learning process carried out. Teachers feel more helped by academic supervision by the principal, because then teachers can carry out learning activities better [27].

The Relationship between Education Supervision and Principals in Improving the Quality of Learning

In general, supervision is defined as the direction and control of staff in an organization or group. Supervision aims at increasing the ability of teachers to prepare their students to become effective members of society. Helping teachers make a critical diagnosis of their activities and teaching and learning difficulties. The person conducting

supervision activities is called a supervisor. In the world of education, supervision is coaching, in the form of coaching/guidance towards improving the educational situation in general and improving the quality of teaching, learning, and learning in particularly. Educational supervision is a series of activities to shape teachers to develop their professional abilities as educators. Therefore, to be able to carry out supervision of teachers, it is necessary to know the condition of the ability/competence possessed by the teacher. Supervision is an activity to observe, guide, and stimulate the activities of others carried out by the principal effectively [28]. Purwanto [29] defines supervision as a coaching activity that is planned to assist teachers and other school employees in doing their jobs effectively.

Conclusion

Educational supervision activities cannot be carried out by just anyone, especially those who are not prepared in advance, because a supervisor is a professional person when carrying out his duties. It acts based on scientific principles to improve the quality of education. Not only that, but a supervisor is also usually a status leader by his position and therefore he bears the responsibility to realize the creative potential of the person being fostered in solving every problem by involving other people to participate together. So, the ability to lead, in this case the leadership of the principal is very helpful for the smooth running of the coaching program in the school environment. Especially in equipping the ability of teachers and school/educational administrative staff, providing direction, enthusiasm, and motivation for them to improve the implementation of the teaching, and learning process and the performance of the education administration in general. As a supervisor, school principals carry out two supervisory activities, namely managerial supervision, and academic supervision.

References

[1]   A. S. Kurnia, C. Safruddin, & A. Jabar, (2020), *Jurnal Pendidikan Progresif The Participatory Decision-Making Styles Of The Principals Of Vocational,* Vol 10 (1), 105–116, 2020.

[2]   A. A. Onele, & P. O. Nwafukwa, Principals Exercise Of Administrative Autonomy In Secondary Schools: A Study Of Ebonyi State Secondary School System, *Nigeria 9*(5), 22–28. 2019.

[3]   Suparman. *Kepemimpinan Kepala Sekolah dan Guru.* Jawa Timur: Uwais Inspirasi Indonesia. 2019.

[4]   N. S. Ariyanti, A. Supriyanto, & A. Timan, Kontribusi Kepala

Sekolah Berdasarkan Ketidaksesuain Kualifikasi Guru Untuk Meningkatkan Kualitas Sekolah. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam, 4*(2), 157–168. 2019

[5]   W. Liu, & B. Gumah, (2020). Leadership Style And Self-Efficacy: The Influences of Feedback. *Journal of Psychology in Africa, 30*(4), 289–294, 2020.

[6]   R. N. Lussier, & C. F. Achua, Leadership: Theory, Application & Skill Development (5th Ed). South-Western Cengage Learning. 2013.

[7]   Asmendri, The Roles of School Principal in the Implementation of Character Education at Boarding School. *Al-Ta lim Journal, 21*(2)*,* 104–111 2014*.*

[8]   M. C. Brooks, & E. Sungtong, 'We Still Have Bombings': School Principals And Insurgent Violence In Southern Thailand. *International Journal of Leadership in Education, 19*(5), 505–533, 2016.

[9]   A. Abdullah, Manajemen Kepala Sekolah dalam Pembelajaran Daring Pada Masa Pandemi Covid 19. *Jurnal Pendidikan Guru.* 2021.

[10]   M. F. Faizi, Peranan Kepala Sekolah Dalam Melaksanakan Supervisi Akademik Di Sd Negeri Jatisawit 05 Tahun Pelajaran 2016/2017. 1, 43. 2017

[11]   A. J. Mahardhani. Kepemimpinan Ideal Kepala Sekolah. *Jurnal Dimensi Pendidikan dan Pembelajaran*, Juli, Vol. 3 (2). 2015.

[12]   Abdurrozaq, Moch. (2017). Strategi Kepala Sekolah Dalam Upaya Meningkatkan Kinerja Guru di SMP Muhammadiyah 1 Gadingerjo Kabupaten Pringsewu. *Skripsi.* Fakultas Tarbiyah dan Keguruan Jurusan Manajemen Pendidikan Islam. Institut Agama Islam Negeri Raden Intan Lampung.

[13]   M. Ya'cub, & D. S. Ga'a, Strategi Kepala Sekolah dalam Meningkatkan Kualitas Pembelajaran Melalui Pengembangan Sarana Prasarana. Munaddhomah: J*urnal Manajemen Pendidikan Islam, 2*(2), 60–69, 2021.

[14]   D. Ratnasari, R. Roemintoyo, & W. Winarno, Implementasi Teknik Supervisi Akademik Kepala Sekolah Terhadap Tenaga Pendidik Sekolah Dasar untuk Menghadapi Era Digital. *JMSP (Jurnal Manajemen dan Supervisi Pendidikan), 3*(1), 12-15, 2018.

[15]   A. Kadarwati, Peningkatan Kualitas Pembelajaran Melalui Supervisi Akademik dengan Teknik. Kunjungan Kelas. *Gulawentah: Jurnal Studi Sosial, 1*(2), 103-120, 2016

[16]   J. Asf, & S. Mustofa. *Supervisi Pendidikan*. Sleman: Ar-Ruzz Media, 2013.

[17]   M. Juliantoro, Peran Kepala Sekolah Dalam Meningkatkan Mutu

Pendidikan. *Al-Hikmah: Jurnal Pendidikan dan Studi Islam, 5*(2), 24-38, 2017.

[18] S. Julaiha, Konsep Kepemimpinan Kepala Sekolah. *Tarbiyah Wa Ta'lim: Jurnal Penelitian Pendidikan dan Pembelajaran, 6*(3), 179-190, 2019.

[19] A. Suradi, Supervisi Akademik Kepala Sekolah Pada Kinerja Guru Pendidikan Agama Islam Di Sekolah Dasar Negeri 79 Kota Bengkulu. *AULADUNA: Jurnal Pendidikan Dasar Islam*, *5*(1), 13-29, 2018.

[20] A. Wahyudi, S. Narimo, & W. W. Wafroturohmah, Kepemimpinan Pembelajaran Kepala Sekolah Dalam Meningkatkan *Hasil Belajar Siswa. Jurnal Varidika*, *31*(2), 47-55. 2020.

[21] Aslinda, Pengaruh Supervisi Kepala Sekolah Dan Motivasi Guru Terhadap Kinerja Guru Matematika Di SMP Se-Kota Padang Panjang, Batusangkar: Institut Agama Islam Negeri (IAIN) Batusangkar, 2021.

[22] A. M. Putri, & U. R. Soedarmo, Peningkatan Mutu Hasil Belajar Peserta Didik Melalui Supervisi Akademik Kepala Sekolah*, Indonesian Journal of Education Management & Administration Review, 2*(2), 253-258, 2019.

[23] Muhibbudin. *Pengembangan Desain Supervisi Pendidikan*. Kediri: IAIN Kediri. 2020.

[24] A. A. Anissyahmai, *Supervisi Akademik Kepala Sekolah. Jurnal: Manajer Pendidikan,* Vol. 10 (3), 2016.

[25] R, Badruzzaman, *Peran Kepala Sekolah Sebagai Supervisor Bidang Akademik Dalam Meningkatkan Kompetensi Pedagogik Guru Di Mi Al-Mursyidiyyah*. Jakarta: Universitas Islam Negeri (UIN) Syarif Hidayatullah Jakarta 2019.

[26] M. Messi, W. A. Sari, & Murniyati, Pelaksanaan Supervisi Akademik Pengawas Sekolah Sebagai Upaya Peningkatan Profesionalisme Guru. *JMKSP (Jurnal Manajemen, Kepemimpinan, dan Supervisi Pendidikan), 3*(1), 114-125. 2018.

[27] A. Suradi, Supervisi Akademik Kepala Sekolah Pada Kinerja Guru Pendidikan Agama Islam Di Sekolah Dasar Negeri 79 Kota Bengkulu. *AULADUNA: Jurnal Pendidikan Dasar Islam*, *5*(1), 13-29. 2018.

[28] Arbangi, dkk, *Manajemen Mutu Pendidikan,* Depok: Penerbit Prenadamedia Group. 2018

[29] N. Purwanto. (2019). *Administrasi dan Supervisi Pendidikan.* Bandung: Penerbit Rosda, 2019.

Legal Aspects of Provision of Subsidies from the Government to the People Due to the Increase in Fuel Oil

Try Widiyono[1]

Introduction

The Republic of Indonesia can be classified as a welfare state, this is because the aim of establishing the Republic of Indonesia is for the welfare of the people. The goal of the Republic of Indonesia is stated in the fourth paragraph of the 1945 Constitution, namely to improve public welfare. This means that all the efforts of the state which are carried out through the government are to improve the welfare of all Indonesian people physically and spiritually. Furthermore Article 33 paragraph (3) of the 1945 Constitution states "Earth, water and natural resources contained therein are controlled by the state and used for the greatest prosperity of the people".

Oil and natural gas are the contents of Indonesia's earth, which belong to the Indonesian people and must be managed by companies that are oriented towards the welfare of the Indonesian nation. Pertamina as an oil and gas management company is in the form of a profit-oriented limited liability company. Based on the dictum of Law no. 22 of 2001 concerning Oil and Gas (UU Migas) stated that "Oil and Natural Gas are non-renewable strategic natural resources controlled by the state and are vital commodities that control the lives of many people and have an important role in the national economy so that their management must be can optimally provide the prosperity and welfare of the people. That is why oil and natural gas (oil and gas) as natural resources must be controlled by the state and utilized for the welfare of the entire Indonesian nation.

The meaning of "controlled by the state" means that the state is not the owner of oil and gas, but this provision gives the authority and power to the state to regulate the allocation and use and management of oil and gas which is oriented towards improving people's welfare. The state's functions include determining the distribution and price of oil and gas fuel so that it can be afforded by the public and for the welfare of all Indonesian people. The state with the authority mentioned above has formed a business entity that manages oil and natural gas, namely the Pertamina Company since 1957 until now. Furthermore, on April 11 2018 the Government has

---

[1] Faculty of Law, Jakarta Islamic University, t.widiyono@yahoo.com

formed an oil and gas holding company through PT.Pertamina (Persero) as the holding company and PT Perusahaan Gas Negara (PGN) as a subsidiary. With the joining of PGN, Pertamina currently has 22 direct subsidiaries, apart from the company's grandchildren.

Pertamina is a State-Owned Enterprise (BUMN) in the form of a Limited Liability Company. Therefore, Pertamina is also subject to Law no. 40 of 2007 concerning Limited Liability Companies (UUPT). In the Company Law there is a principle of company independence that is independent from the individuals who are in the company [1, p. 9] including company organs. The principle of independence of a limited liability company is that the company is an association of its members and the company and its members are separated. In addition, the UUPT also contains the legal doctrine of Fiduciary duty, namely that a limited liability company is the reason for the existence (raison d'etre) of the Board of Directors and has a fiduciary relationship which creates "fiduciary duties" for the Board of Directors [2, p. 3]. Limited company is a form of profit-oriented business. Therefore, Pertamina as a limited liability company is obliged to make a profit, meanwhile as oil and gas manager which is the need of many people is obliged to provide the lowest possible price for the sake of to improve people's welfare. So that there are legal issues, namely: What are the legal aspects of giving subsidies from the government to the people due to the increase in fuel oil?

Discussion

The Government of the Republic of Indonesia has decided to divert part of the subsidy from fuel oil (BBM) to more targeted assistance. The state's money should be prioritized to provide subsidies to the less fortunate. The government has made efforts to protect the public from rising world oil prices through fuel subsidies and fuel compensation for 2022 in the State Revenue and Expenditure Budget (APBN) which has increased three times. from IDR 152.5 trillion to IDR 502.4 trillion, and it will continue to increase. The results of the discussion resulted in the opinion that 70 percent of the subsidy actually enjoyed by groups of people who could afford it, namely owners of private cars. Therefore the distribution of aid is more targeted, through the BBM Direct Cash Assistance (BLT) which will be given to 20.65 million underprivileged families. In addition, the Government has also prepared a budget for wage subsidy assistance given to workers with a maximum salary of IDR 3.5 million per month. 9.6 trillion IDR for 16 million workers with a maximum salary of IDR 3.5 million per

month in the form of wage subsidy assistance which is provided in the amount of IDR 600 thousand.

Sociologically, the granting of the various subsidies above is very good and certainly no party disagrees. But the study of legal aspects is different from the study of sociological aspects. The study of legal aspects needs to pay attention to the legal system surrounding the provision of these subsidies. This legal system also concerns the nature of the Republic of Indonesia being formed, which is stated in the fourth paragraph of the 1945 Constitution that the establishment of the Republic of Indonesia is to improve public welfare. Article 33 paragraph (3) of the 1945 Constitution states "Earth, water and natural resources contained therein are controlled by the state and used for the greatest prosperity of the people". Paragraph (2) of Article 33 states that the branches of production which are important for the state and which affect the livelihoods of many people are controlled by the state. The legal system must also look at the nature of companies which affect the lives of many people controlled by the state. In this case, the state has entrusted the management of Meyak and Natural Gas to PT Pertamina, a profit-oriented business entity. It is also necessary to state whether the management of oil and natural gas is appropriate for a limited liability company that is oriented towards profitability. Is such a gift in accordance with the 1945 Constitution article 33 above?

In addition, as a Limited Liability Company, it will comply with Law no. 40 of 2007 concerning Limited Liability Companies (UUPT) and as a limited liability company is subject to Law no. 19 of 2003 concerning State Owned Enterprises (BUMN). Limited Liability Company legal doctrine is as a separatist legal entity that stands alone. The doctrine of a limited liability company that stands alone as a legal entity began in 1897 in England as a decision in the case of Salomon v Salomon co. Ltd, among others, stipulating that the most important characteristic of a company is the association of its members and the separation between the company and its members [4, p. 6]. The company is a separate entity from its shareholders and directors. This principle became known as the company as separate legal entity principle. Limited liability is a plural principle that applies in the modern world that shareholders in a Limited Liability Company cannot be held liable for more than their share of capital [5, p. 23].

Article 1 point 1 UUPT which states "Limited Liability Company (Company) is a legal entity which is a partnership of capital, established based on an agreement, conducting business activities with authorized capital which is entirely divided into

shares, and fulfills the requirements stipulated in this law and its implementing regulations ". Therefore, the aspect of separation of personal assets (separate legal personality) which implies the meaning of independence of a limited liability company has been regulated in the UUPT and is a core part of the existence of a limited liability company.

Article 3 Paragraph (1) of the UUPT states, "The shareholders of the Company are not personally responsible for the engagement made on behalf of the Company and are not responsible for the Company's losses in excess of the shares they own". Shareholder immunity becomes invalid when there is an incident stipulated in article 3 paragraph (2) of the UUPT, namely (a). the requirements of the Company as a legal entity have not been or have not been fulfilled; (b). the shareholder concerned, either directly or indirectly, in bad faith exploits the Company for personal gain; (c). the relevant shareholder is involved in an unlawful act committed by the Company; or (d). the shareholders concerned either directly or indirectly unlawfully use the Company's assets, which results in the Company's assets being insufficient to pay off the Company's debts.

Article 1 point 4 of the Company Law states that in essence "the General Meeting of Shareholders (GMS) is a company organ that has authority not granted to the Board of Directors or the Board of Commissioners within the limits set forth in this Law and/or the Articles of Association". Thus the relationship between the organs of the company, namely the Board of Directors and the Board of Commissioners, is when the GMS is held. Article 1 point 5 UUPT states "The Board of Directors is a Company Organ that is authorized and fully responsible for managing the Company for the benefit of the Company, in accordance with the aims and objectives of the Company and representing the Company, both inside and outside the court in accordance with the provisions of the articles of association".

There are many provisions in UUPT that regulate the independence of the Board of Directors, including Article 92 paragraph (1) UUPT Directors carry out management of the Company for the benefit of the Company and in accordance with the aims and objectives of the Company. Paragraph (2) The Board of Directors has the authority to carry out the management as referred to in paragraph (1) in accordance with the policies deemed appropriate, within the limits specified in this Law and/or the articles of association. Furthermore, Article 97 paragraph (1) states that the Board of Directors is responsible for managing the Company as referred to in Article 92 paragraph (1). Paragraph (2) states that the management as referred to in paragraph (1) must be carried out

by each member of the Board of Directors in good faith and with full responsibility. Meanwhile, paragraph (3) states that each member of the Board of Directors is personally responsible for the losses of the Company if the person concerned is guilty or negligent. carry out their duties in accordance with the provisions referred to in paragraph (2). Limited Liability Company is the raison d'etre for the Board of Directors. Therefore, there is a fiduciary relationship between the Limited Liability Company and the Board of Directors which creates "fiduciary duties" for the Board of Directors [2, p. 3]. Directors are the trust of investors, namely shareholders. However, the Board of Directors must not only be responsible to shareholders, but responsible to all stake holders.

Based on the description above, first, as a business entity in the form of a limited liability company, it must comply with the principle of independence of a limited liability company described above. Therefore, Pertamina as a limited liability company may not intervene in any way, including in setting the price of the oil and gas it sells. Therefore the decision of the Minister of Energy and Mineral Resources in setting the price of oil can be assessed as the Ministry of Energy and Mineral Resources has interfered in the management of Pertamina, and legally violated the doctrine or principle of managing a limited liability company as an independent business entity managed by the Board of Directors who is obliged to carry out professional management based on the doctrine fiduciary duty law.

The announcement of the increase and decrease in fuel prices mentioned above not only violates the principle of fiduciary duty and the principle of separatist legal entity, but also violates the principle of excess of authority. Because if the state in this case is Pertamina's shareholder, it should be the Ministry of SOEs as the state's representative in the Shareholders who declares the increase and/or decrease in oil and gas prices, even if it is done by the Ministry of SOEs, it is still not in line with the principles of fiduciary duty and separatist legal entity. Because Shareholders have interfered in the management of the Board of Directors. In line with this thought, legally, the authority to announce oil and gas prices is Pertamina's board of directors. However, as accountability to stakeholders, the announcement is accompanied by legal logic that the actual base price of oil and gas is in accordance with the Self-Estimated Price (HPS) which has been determined based on careful and accountable calculations, with losses resulting from "forced" prices announced by the Ministry of Energy and Mineral Resources.

Announcements made by ESDM in setting fuel prices can be considered as violating Law Number 31 of 1999 as amended by Law

Number 20 of 2001 concerning Eradication of Corruption Crimes. Article 3 states that "Anyone who, with the aim of benefiting himself or another person or a corporation, abuses the authority, opportunities or facilities available to him because of his position or position which can harm the state's finances or the country's economy, shall be punished .... etc.). ". The main element in the criminal act of corruption is to benefit oneself or other parties and by misusing their authority and position and can be detrimental to the state. Announcements made by the Ministry of Energy and Mineral Resources regarding increases and decreases in oil and gas prices can be detrimental to the state and benefits to other parties. This state loss was experienced by Pertamina. This has fulfilled the elements of a criminal act of corruption, unless there is a justifying reason that gives authority to the Ministry of Energy and Mineral Resources regarding this matter.

Pertamina as a profit-oriented company with its business commodity in the form of oil and gas which is a commodity for the livelihood of many people, has created a pull of interests between law, politics, expectations and reality. Of course, the government wants Pertamina as a source of state revenue through oil and natural gas in the face of the demand for oil and natural gas as a commodity for the lives of many people managed by Pertamina. Therefore, Oil and Natural Gas should be managed by a non-profit entity, whose job is to manage oil and gas as efficiently as possible and be able to sell oil and gas prices as cheaply as possible without any profit targets like Pertamina at this time. The subsidies given should be given to Pertamina as the manager of Oil and Gas commodities, not to the public. Provision of subsidies to the public can be given as a sweetener for rising fuel prices. Providing government subsidies to the people as stated at the beginning of the discussion of this research, does not solve the main problem. Because the main problem is oil and gas prices.

Pertamina's management is based on Good Corporate Gouvernence (GCG), and can determine the base price or basic price of oil and gas with accuracy. If the base price or basic price is known, then if the government wants to set a selling price for oil and gas, it can communicate with Pertamina's management to set a selling price to the public. The difference between the basic price and the selling price must be subsidized by the Government to Pertamina. Therefore, Pertamina's Directors can convey the increase in oil and natural gas prices as well as notify the Government of the amount of subsidy requested by Pertamina. In this case, the Government will of course submit it to the APBN Memorandum to the DPR.

Pertamina is a national energy company whose 100% (99.9%) share ownership is owned by the Government of the Republic of Indonesia, through the State Ministry for State-Owned Enterprises (BUMN) as the Attorney of Shareholders [5]. Therefore, the Government as Pertamina's shareholder is obliged to respect and carry out the principle of Pertamina's independence as an independent entity. In the case of the Government through the Minister of BUMN or other ministries, the government has violated the legal doctrine of fiduciary duty and the principle of separate legal entities. The legal consequence is that the immunity of shareholders becomes unlimited.

Conclusion

Pertamina as a profit-oriented company with its business commodity in the form of oil and gas which is a commodity for the livelihood of many people, has created a pull of interests between law, politics, expectations and reality. Of course, the government wants Pertamina as a source of state revenue through Oil and Gas, dealing with the interests of oil and natural gas commodities as commodities for the lives of many people managed by Pertamina. The subsidies given should be given to Pertamina as the manager of Oil and Gas commodities, not to the public. Provision of subsidies to the public can be given as a sweetener for rising fuel prices. Providing government subsidies to the people as stated at the beginning of the discussion of this research, does not solve the main problem. Because the main problem is oil and gas prices.

References

[1]   R. Prasetya, *Kedudukan Mandiri Perseroan Terbatas, Disertai Dengan Ulasan Menurut Undang-undang No. 1 tahun 19*. Bandung: PT Citra Adtya Bakti, 2001.

[2]   F. B. G. Tumbuan, *Tugas dan Tanggung Jawab Direksi Perseroan Terbatas, Materi Pendidikan Singkat Hukum Bisnis*. Jakarta: Unika Atmajaya, 2000.

[3]   M. Fuady, *Doktrin-doktrin Modern Dalam Corporate Law*. Bandung: Citra Aditya Bakti, 2002.

[4]   T. M. Franck, "The New Development : Can American Law and Legal Institutions Help Developmant Countries," United States of America, 1971.

[5]   Pertamina, "Pemegang Saham Pertamina," *Pertamina.com*. .

Increase of Fuel Price in Perspective of Pancasila Law State

Untoro[1]

Introduction

Indonesia as a law is clearly stated in the constitution, namely Article 1 paragraph (3) of the third amendment. The term rule of law for western (continental) European legal experts such as Friedrich Julius Sthal uses the term rechtsstaat. Meanwhile, legal experts from the common law legal system use the term rule of law. The term rechtsstaat developed in the continental European legal system which has the main principle or basic principles of law, namely that law gains the power of remembering because it is in the form of regulations in the form of laws that are arranged systematically. Thus the main source in the continental European legal system is law. Countries that use the continental European legal system are mainland European countries such as the Netherlands, France, Germany, Italy, Latin America, Asia including Indonesia during the Dutch colonial period. Meanwhile, the common law legal system is based on court decisions as a source of law, customs that live in society, agreements agreed upon by the parties.

A rule of law, both in terms of rechtsstaat and rule of law, is built with inherent characteristics. The characteristics of rechtsstaat are the existence of 4 things, namely: protection of human rights; separation or division of powers to guarantee human rights; government based on regulations; an administrative court. Meanwhile, the characteristics of the rule of law are developed by 3 things, namely: the supremacy of legal rules; equal standing before the law; guaranteed human rights by the constitution and court decisions. In its development, the characteristics of a rule of law state in the 20th century were formulated by The International Commission of Jurists at the 1955 Athens congress and by the International of Jurists at its congress in Bangkok. There are 6 elements that must be fulfilled, namely: constitutional protection in the sense that the constitution guarantees individual rights must also determine the procedural way to obtain protection for the guaranteed rights; independent judiciary; free general elections; freedom of expression; freedom to associate/organize, have opposition; Civic education.

---

[1] Faculty of Law, Jakarta Islamic University, untoro_uid@yahoo.co.id

The paragraph above has explained the characteristics of a rule of law from classical times to modern times. Likewise, Indonesia as a legal state based on Pancasila has inherent characteristics. The author tries to elaborate and relate it to the government's decision to increase the price of fuel oil. President Joko Widodo at the Merdeka Palace in Jakarta on Saturday, 3 September 2022 announced an increase in the price of fuel oil. The government has set the latest prices which will take effect on Saturday, 3 September 2022 at 14.30 WIB as shown in the table below.

FUEL TYPE	PRICE [IDR]	
	LONG	NEW
Pertalite	7.650,-	10.000,-
Subsidized solar	5.150,-	6.800,-
Pertamax is non-subsidized	12.500,-	14.500,-

This condition brings problems faced by the Indonesian state as a legal state based on Pancasila. So that the existing problem formulation is first, how is the concept of a Pancasila legal state? Second, what are the juridical implications of rising fuel prices in 2022 from the perspective of a Pancasila law state?

Discussion
Pancasila Law State

The Pancasila legal state concept is a legal state concept originating from Indonesian socio-cultural values whose crystallization is Pancasila as the basis of the state. Several legal experts provide elements of the Indonesian legal state based on Pancasila. Philipu M. Hadjon stated that there are 4 elements of the Indonesian rule of law, namely: a harmonious relationship between the government and the people based on harmony; proportional functional relationship between state powers; the principle of settlement of disputes by deliberation and justice is the last resort if the deliberations fail; balance between rights and obligations. Another opinion expressed by Jimly Assidiqie stated that the rule of law principles can be elaborated into 12 elements, namely: the rule of law; equality in law; legality principle; power limitation; independent government organs; free and impartial judiciary; state administrative court; constitutional court; protection of human rights; democratic in nature; function as a means of realizing the goals of the state; transparency and social control.

Another opinion regarding the Pancasila legal state was expressed by Aloysius R.Etah who stated that the characteristics of a Pancasila legal state were:

a. The Unitary State of the Republic of Indonesia which is diverse is not a secular state, not a religious state, not an atheist state, but a state based on the belief in the One Supreme God which is universal according to various religions and beliefs in the Almighty God;

b. The Unitary State of the Republic of Indonesia is a country that upholds equal rights and respects differences, and loves peace on the basis of just and civilized humanity;

c. The Unitary State of the Republic of Indonesia is based on the unity of Indonesia which is diverse in diversity and protects the entire Indonesian people and the homeland of Indonesia;

d. The Unitary State of the Republic of Indonesia is a democratic country which always prioritizes consensus deliberation on the basis of the people which is led by wisdom in representative deliberations and does not adhere to liberal democracy which prioritizes voting in decision making;

e. The Unitary State of the Republic of Indonesia wants to create a society that is safe, orderly, peaceful, just, prosperous and prosperous on the basis of social justice for all Indonesian people.

The Pancasila legal state, with the above explanation, distinguishes it from other legal states. Like the rule of law state initiated by Plato, an ancient Greek philosopher who initiated his thoughts on the rule of law state. Plato conveys the concept of good state administration. That a good state can only be governed by good rules (laws). In the practice of power, the idea of a rule of law became known and liked by many people (popular) in the 17th century AD which at that time was due to the socio-political situation in Europe. This was marked by the emergence of absolute power which led to the oppression of the nobility against the middle class which consisted of intellectuals and wealthy people. At that time, the concept of etatism (the state is me) was known, which was used to maintain power and enrich oneself. In the end, the middle class put up a fight by demanding that changes in the socio-political structure be carried out. This group is the first to dream of establishing a liberal rule of law so that everyone can safely and freely seek a decent life for themselves. Two figures who have contributed to developing a rule of law are Immanuel Kant. Second, Frederich Yulius Stahl.

A liberal rule of law or a rule of law state in the narrow sense as developed by Immanuel Kant is a night guard state (nachtwakerstaat). Subsequent developments by a German scholar named Frederich Julius Stahl in 1878 perfected the notion of a rule of law in the narrow sense with the notion of a state of law in the broad

sense, namely a welfare state (welfarestaat). There are 4 elements attached to a welfare law state, namely: the protection of human rights; there is a separation and distribution of state powers to ensure the protection of human rights; government by government [1]. Apart from a welfare state, there is also a religion legality state and an Islamic nomocracy.

The religious state (religious legality) as stated by Bahder Johan Nasution that the basic idea of the concept of a religious legality (religious state) originates from thoughts in the Middle Ages, especially starting with the writings of Christian philosophers pioneered by Thomas Aquinas (1225-1274). In his philosophy of law, Thomas Aquinas divides law into 4 groups, the first is law that originates from God to regulate the universe (lex aeterna); secondly, laws that contain general instructions regarding instincts for survival, family, knowing God, etc. (ex naturalis); third, is the elaboration of lex aeterna contained in the old and new testament (lex divina); the fourth positive law or legislation made by humans (lex humania). Meanwhile, the concept of Islamic nomocracy according to M. Tahir Azhari by quoting the opinion of Malcolur H. Kerr is a state of law that originates from the Al-Qur'an and sunnah. Meanwhile, Islamic nomocracy is an Islamic state that has general principles, namely:

A. The principle of power as Trust.
B. The principle of deliberation.
C. The principle of justice.
D. Principle of equality.
E. The principle of recognition and protection of all human rights.
F. Free trial principle.
G. Peace.
H. Well-being.
I. People's obedience.

Juridical Implications

The government has set an increase in the price of subsidized fuel oil, namely pertalite and diesel, receiving a response from the public and students holding demonstrations against the increase in fuel prices. The attitude taken by the government by increasing the price of fuel oil in the concept of a rule of law is called a legal action (rechtshandelingen) that is an action that can cause legal consequences because in the category of this legal action can create rights and obligations/Een rechthandeing is gericht op het schepen van rechten of plichten [2]. In this legal action, the government is obliged to uphold the principle of legality, because the principle of

legality means that the government must comply with the law. Actually legal actions or real government legal actions are divided into 4, namely decisions (beschikking), plans (plans), concrete norms (concrete normgeving), pseudo-legislation (pseudo-wetgeving).

Decisions or decrees in practice are government legal actions that are often used. This is because stipulations can be used for all executors of administrative legal relations in the form of obligations to act, not to do or allow things such as subsidies (assistance), permits and status grants [2]. But there are things that need to be known that decisions are different from regulations (regeling). In the context of the government increasing fuel prices as outlined in the Decree of the Minister of Energy and Mineral Resources, this is an example of regeling not beschikking which is the implementation of one of the characteristics of a rule of law, namely government based on laws. The Minister of Energy and Mineral Resources issued Decree Number 218.K/MG.01/MEM.M/2022 concerning Retail Selling Prices for Certain Types of Oil Fuel and Special Types of Assigned Fuel Oil dated September 3, 2022.

The decision letter is the legal basis for increasing the price of fuel oil in Indonesia. There is a sociological reason in his consideration, namely the increase in world crude oil prices. The philosophical rationale is to support people's purchasing power by diverting well-targeted fuel subsidies in the form of cash transfers and social assistance. The juridical reason is to implement the provisions of Article 14 of Presidential Regulation Number 191 of 2014 concerning the Supply, Distribution and Retail Selling Prices of Oil Fuel as amended several times, most recently by Presidential Regulation Number 117 of 2021 concerning the Third Amendment to Presidential Regulation Number 191 of 2014 concerning Provision, Distribution and Retail Selling Prices of Oil Fuel, an Internal Meeting was held chaired by the President on 29 August 2022.

The substance of the decree is divided into several dictums, the first dictum regulates the retail selling price of certain types of fuel oil at the point of delivery, for each liter it is determined: 1. Kerosene (kerosene) of Rp. 2,500.00 includes Value Added Tax 2. Diesel oil (gas oil) in the amount of IDR 6,800.00 includes Value Added Tax and Motor Vehicle Fuel Tax (PBBKB). The second dictum determines the retail selling price for the type of fuel oil specifically assigned to the RON 90 gasoline type at the delivery point, for each liter it is set at Rp. 10,000.00 including Value Added Tax and Motor Vehicle Fuel Tax (PBBKB). The third dictum, regulates the entry into force of the retail selling price of the special type of fuel oil for the assignment, starting from 3 September 2022 at 14.30 WIB. The fourth dictum stipulates

that 2 Decrees of the Minister of Energy and Mineral Resources are declared revoked and declared invalid, namely the Decree of the Minister of Energy and Mineral Resources Number 125.K/HK.02/MEM.M/2021 concerning Retail Selling Prices for Certain Types of Fuel Oil and Types of Oil Fuel Special Assignment. 2. Third Dictum of Decree of the Minister of Energy and Mineral Resources Number 37.K/HK.02/MEM.M/2022 concerning types of fuel oil for special assignments. The implication of the increase in fuel prices is that a strategic policy is needed from the government. Because the increase in fuel prices is a dilemma, on the one hand the state budget will be depressed if the fuel price is not increased, while on the other hand the increase in fuel prices triggers inflation which means an increase in the poverty rate.

Strategic policies as juridical implications for rising fuel prices can be in the form of direct cash assistance (BLT), capital assistance for the micro, small and medium enterprises (MSMEs) sector. Because labor absorption is in SMEs as much as 97% [3]. This implication is the government's proactive attitude in finding a way out because of the increase in fuel prices which has an impact on people's economic life which is marked by a decrease in people's purchasing power because people's income has substantially decreased [4]. The Chairperson of the Economic Policy Analysis Committee of the Indonesian Employers' Association stated the same thing, there are two effects that need to be properly mitigated by the government due to the impact of rising fuel prices. First, depressed purchasing power and the level of public consumption. Second, the inflation rate. In the second quarter of 2022 the inflation rate has reached the level of 4.94% year on year (yoy), meaning the comparison between 1 year this and 1 year ago [5].

Conclusion

A. The concept of the Pancasila legal state is the concept of a legal state originating from Indonesian socio-cultural values whose crystallization is Pancasila as the basis of the state.

B. The juridical implications as a result of rising fuel prices in the perspective of the Pamcasila rule of law are the issuance of strategic policies, so as to be able to reduce social turmoil due to rising fuel prices.

References

[1]   A. R. Entah, "Indonesia: Negara Hukum Yang Berdasarkan Pancasila," 2017.

[2]   M. Said, *Asas-Asas Hukum Administrasi Negara*. Yogyakarta:

Thafa Media, 2019.

[3]   Komisi XI DPR, "Keputusan Pemerintah Naikkan Harga BBM Subsidi Perlu Dibarengi dengan Bauran Kebijakan," *DPR.go.id*, 2022. https://www.dpr.go.id/berita/detail/id/40504/t/Keputusan+Pemerintah+Naikkan+Harga+BBM+Subsidi+Perlu+Dibarengi+dengan+Bauran+Kebijakan.

[4]   Muhardi, "Kenaikan harga Bahan bakar Minyak (BBM] Dan Implikasinya Terhadap Makro Ekonomi Indonesia," *MIMBAR Jurnal Sosial dan Pembangunan*, vol. 21, no. 4, 2005, doi: 10.29313/mimbar.v21i4.189.

[5]   V. Y. Susanto, "Dampak Kenaikan Harga BBM, Apindo: Tekanan Daya Beli dan Inflasi Perlu Dimitigasi," *Kontan.co.id*, 2022. https://nasional.kontan.co.id/news/dampak-kenaikan-harga-bbm-apindo-tekanan-daya-beli-dan-inflasi-perlu-dimitigasi.

The Needs of Toileting Instrumental for Post-Operative Hip Fracture Patients

Wantonoro[1]

Introduction

Along with the increase of life expectancy, the elderly population is predicted to keep increasing in 2030 and it is predicted that there will a raise of prevalence of hip fracture including in Asia. [1]. It is reported that 1 of 3 elderly will experience osteoporosis which then cause bone fracture, one of it is hip fracture [2],[3]. Hip fracture is a problem that really affects daily life activity and cause a high dependency level to fulfil daily basic needs, especially in the elderly with various function decrease either physically or cognitively [4],[5]. A study in Europe reported that 60% of the patients experiencing Hip Fracture and post-operative hip fracture either with Hemiarthroplasty or Total Hip Replacement will be dependent to assisting tools in order to support the mobility or movement in their daily activity for at least the first two years [6], [7].

It is predicted that more than 90% hip fracture is treated with surgery [8]. Previous study concluded that post-operative hip fracture patients need instrument adjustment in order to fulfil basic daily activity needs (one of those are the needs of movement and elimination) in order to support the recovery process and prevent complication (hip joint dislocation) [4],[5],[9],[10]. However, another study in Indonesia [5],[9] found that limited instruments/facilities available especially in the patients' house became the obstacle in fulfilling daily needs, including basic need elimination (especially defecation) during the recovery period, and could cause dislocation [11] due to improper movement or position [12].

An assisting tool modification is needed in order to fulfil the elimination needs that could facilitate the patient during such recovery time, for example flexible and precise toilet modification with range of motion to avoid dislocation that could be easily be used and affordable for all people/patients concerned. There is an urgency of developing the concept of a tool in the form of a flexible toilet chair that could be adjusted its height automatically which is very helpful in speeding up the recovery process of hip fracture due to its flexy

[1] Department of Nursing, University of Aisyiyah Yogyakarta,
wantoazam@unisayogya.ac.id

position when sitting down which form angle that is less than 90°. The flexible toilet chair could be adjusted its height from the chair, so that the legs and body of the hip fracture patients could form the angle of not more than 90°. This paper presents the review on physical activity needs as a basic in the design and designing the modification of defecation aids for post-operative hip fracture patients.

Discussion
Hip Fracture

Hip fractures include femoral neck, intertrochanteric or subtrochanteric fractures. Age-adjusted hip fracture incidence is decreasing [13]. Hip fractures are the common injuries most often seen in the geriatric population[14]. Study showed the frequency of hip fractures appears to increase in many countries because of the life expectancy over the age of 50 years has increased and osteoporosis increased and was followed by hip fracture [15].

Hip fractures are classified into two categories: 1) intra-capsular fractures, which occur within the joint capsule in the neck of the femur; and 2) extra-capsular fractures, which occur outside the joint capsule. These fractures can be further subdivided into several categories. Intra-capsular fractures can be sub-capital or trans-cervical fractures, depending on which region of the femoral neck is fractured. Extra-capsular fractures are classified as basal neck, intertrochanteric (occurring between the greater and lesser trochanters), and sub-trochanteric (occurring below the lesser trochanter)[16].

Hip Functional Status

The choice of treatment for hip fractured is surgical intervention (internal fixation and arthroplasty) unless the patient's condition contraindicates surgery [17]. Surgical treatment helps to ensure proper reduction and alignment of the bone ends, mobilizes the patient more quickly, and decreases the likelihood that the patient will develop complications [18]. The patients who are treated surgically are usually transferred from the bed to a chair on the first postoperative day, which helps minimize the complications resulted from immobility and help on functional status [19], [20].

Hip fractures account for a majority of medical costs and morbidity in the community. The patients require a long duration of hospitalization and there is a frequent need for longer-term care and rehabilitation. Rehabilitation following hip surgery for a fracture is very individualized to the patient. Most patients will be discharged from the hospital to a long-term care facility as they continue their

recovery. How quickly the patient will be able to regain function depends on several factors. Some of the factors affecting recovery include the patient's age, health status prior to the injury and surgery, mental status, presence of depression, and the type of fracture [4], [5], [21].

The patients who experience cognitive impairment are more likely to have a poorer outcome following surgery and face the potential for placement in a long-term care facility with decreased function and increased mortality [22-24]. It is important that for the patient's long-term recovery the mobility begin early in the postoperative period. Physical therapy will be the key to the patient to be able to ambulant safely. The emphasis will be placed on the maintaining the range of motion, muscle strength, and tone of the muscles in the unaffected extremities. The patient will be encouraged to use the overhead trapeze on the bed as much as possible to strengthen the arms, as the patient is going to need upper body strength to safely use any assistive walking devices. Gluteal setting exercises and quadriceps setting exercises will also be taught. Adequate muscle strength throughout the body will be the key to successful ambulation following surgery [25],[27].

The assessment of functional status is critical for normal aging changes, acute illness, worsening chronic illness, and hospitalization can contribute to a decline in the ability to perform tasks necessary to live independently in the community [28]. The information from a functional assessment can provide objective data to assist with targeting individualized rehabilitation needs or to plan for specific in home services such as meal preparation, nursing care, home-maker services, personal care, or continuous supervision [29]. A functional assessment can also assist the clinician to focus on the person's baseline capabilities, facilitate early recognition of changes that may signify a need either for additional resources or for a medical work-up[30].

Assessment of level individual Instrumental Activities of Daily Livings (IADLs) patient with hip fracture is very important to know the improvement of physical function of patient [31],[32]. The Barthel Index is a valid measure of disability [33],[34]. The Barthel Index used to assess the physical functioning of hip fracture elders [35]. The previous studies of the functional status hip fractured in elderly summarized in Table 1.

Table 1 Previous studies of the physical/functional status hip fractured in elderly

No	Name (Year) (Coutry)	Title of the study	Sample	Follow-up period	Measures	Conclusion
1	Young et al., (1997) (Baltimore, Maryland)	A Longitudinal Examination of Functional Recovery Among Older People with Sub-capital Hip Fractures	The sample consisted of 312 community-dwelling older adults	A 1-year prospective study	The functional status of hip fracture patients was assessed using 14 items from the Multidimensional Functional Assessment Questionnaire (MFAQ) of the Older American Resources and Services (OARS) Instrument.	The rate of recovery in postsurgical PADLs and IADLs function is not constant over time; postsurgical IADLs function among disoriented patients (without dementia) continues to deteriorate over time com-pared with the non-disoriented group; this difference in trends of deterioration on IADLs function is most profound in the oldest-old aged group, those of 85 years old and older. The types of surgical procedure performed was not significantly associated with postsurgical functional recovery

No	Name (Year) (Coutry)	Title of the study	Sample	Follow-up period	Measures	Conclusion
2	Magazin er et al., (2000) (Baltimore)	Recovery from hip fracture in eight areas of function	Community -residing hip fracture patients (n= 674)	During hospitali zation at 2, 6, 12, 18, and 24 months	Functional Status Index Older America ns Resourc es and Services Instrum ent (OARS) Center for Epidemi ological Studies–Depress ion (CES-D) Scale	Functional disability following hip fracture is significant, patterns of recovery differ by area of function, and there appears to be an orderly sequence by which areas of function reach their maximal levels.
3	Hall et al., (2000).	This case control study of community dwelling subjects six to 12 months post hip fracture aims to investigate their QOL and functional independence.	Ninety-two subjects and 92 controls were recruited	12 months post hip fracture	The Modified Barthel Index (MBI), the Frenchay Activities of Daily Living Index (FAI), the Timed 'Up & Go' (TUG), and the Berg Balance Scale (Berg) were used to measure functionalit y	The effects of impaired balance and mobility along with the reduced functional and social independence are reflected in the diminished QOL perceived by the fracture group

No	Name (Year) (Coutry)	Title of the study	Sample	Follow-up period	Measures	Conclusion
4	Naglie et al., (2002) (Toronto)	Interdisciplinary inpatient care for the elderly people with hip fracture: a randomized controlled trial	279 patients at least 70 years of age (Interdisciplinary care n = 141, Usual care n = 139	6 months	Barthel Index score, Short Mental Status Questionnaire (SMSQ) score	Postoperative inpatient interdisciplinary care did not result in significantly better 3- or 6-month outcomes in the elderly patients with hip fracture
5	Rosell & Parker, (2003) (UK)	Functional outcome after hip fracture A 1-year prospective outcome study of 275 patients	257 patients over the age of 50 years	1 year	Standardized audit guidelines recommended for Europe (SAHFE)	In the year after a hip fracture there will be decline in functionally abilities of about 5% unrelated to the hip fracture and about 15–20% directly related to the hip fracture.
6	Lin & Chang, (2004) (Taiwan)	Functional Recovery Among Elderly People One Year After Hip Fracture Surgery	103 elderly people over 65 years old	One-year study was obtained	Chinese version of the Barthel Index and Lawton and Brody	Patients who had hip fracture did not regain their pre-fracture ability to perform ADLs and IADLs during the first year following the fracture.
7	Shyu et al., (2004a) (Taiwan)	Changes in quality of life among elderly patients with hip fracture in Taiwan	110 hip fractured subjects (age, mean±SD : 79.3±7.4 years)	At 12 months following hospital discharge	Short Form 36 (SF-36) at 1, 3, 6, and 12 months after they were discharged from the hospital.	Different aspects of SF-36 recovered differently for the hip fractured patients in Taiwan

No	Name (Year) (Coutry)	Title of the study	Sample	Follow-up period	Measures	Conclusion
8	Shyu et al., (2004b) (Taiwan)	Predictors of functional recovery for hip fractured on the elders during 12 months following hospital discharge a prospective study on a Taiwanese sample	110 hip fractured elders (mean±SD age, 79.4±7.5; 60.9% females)	At 12 months following hospital discharge	Chinese version of Lawton and Brody's Chinese Barthel Index Time point (3rd, 6th and 12th month	The recovery rate is varied for performance of different activities according to the complexity and the involvement of the lower extremities. Less concomitant diseases, and a shorter hospital stay could predict a better recovery trend of overall and of most individual PADLs.
9	Fredman et al., (2006) (Baltimore)	Elderly Patients with Hip Fracture with Positive Affect Have Better Functional Recovery over 2 years	804 patients aged 65 and older,	2 years after the fracture. Assessments at baseline and 2, 6, 12, 18, and 24 months post-hospitalization.	Positive Affect; 20-item CES-D scale	High positive effect seems to have a beneficial influence on the performance-based functioning after hip fracture.

No	Name (Year) (Coutry)	Title of the study	Sample	Follow-up period	Measures	Conclusion
9	Resnick et al., (2011) (Baltimore)	Physical Activity in the Post-Hip-Fracture Period	The 117 sample patients were community-dwelling, age 65 years or older	2 months	The YPAS Five categories of physical activity: housework, yard work, caretaking, exercise (moderate-intensity physical activity including such activities as brisk walking, biking, dance, etc.), and recreational activities performed during a typical week.	At 2 months post–hip fracture participants were engaged in very limited levels of physical activities. Age and co-morbidities were the only variables to be significantly associated with physical activities outcomes.
10	Magnizer et al., (2003)	Changes in Functional Status Attributable to Hip Fracture: A Comparison of Hip Fracture Patients to Community-dwelling Aged	594 hip fracture patients entering eight hospitals in Baltimore	24 Months	the Established Populations for Epidemiologic Studies of the Elderly	hip fracture patients had substantially more activities of daily living disability than that explained by aging over 24 months.

| 11 | Wantonoro et al., (2020) (Indonesia) | Physical Rehabilitation Outcomes in Patients with Dementia Following Hip Fracture Surgery: A Review | To investigate the rehabilitation programs, especially on the physical function outcomes in the patients with dementia following hip fracture surgery. | concerning rehabilitation intervention program in dementia patients who received hip surgical treatment. | The studies included have the following criteria, (1) investigating physical outcomes of rehabilitation programs (2) Randomized controlled trials (RCTs) study design, (3) study involving dementia patients following hip fracture surgery (4) English full-text journal. | Six studies were included in this review. Most study focused on the interdisciplinary or multidisciplinary rehabilitation program. The physical outcomes of the rehabilitation programs seem to improve physical function, maintaining physical ability for ambulation, and decrease the risk of falls in mild or moderate dementia patients following hip fracture surgery. However, the physical function of the older persons with dementia confirmed to be lower than those without dementia.

Rehabilitation may show benefit for physical function in the elderly with mild or moderate dementia following hip fracture surgery, |

No	Name (Year) (Coutry)	Title of the study	Sample	Follow-up period	Measures	Conclusion
						and this population needs to be included in the clinical rehabilitation program.
12.	Wantonoro et al., (2022) (Indonesia)	Functional Status in Older Persons After Hip Fracture Surgery: A Longitudinal Study of Indonesian Patients	The functional status of 109 patients discharged from an orthopedic hospital in Indonesia after hip fracture surgery was evaluated in this prospective cohort study.	Functional status was evaluated at 1, 3, and 6 months post-discharge	Functional status was evaluated using the measures of physical and independent activities of daily living (PADL and IADL, respectively)	Significant improvements in PADL were found at 3 and 6 months, and significant improvements in IADL were found at 6 months. The predictors of poor outcomes found in this study including age, a dependent pre-fracture walking ability, depression, and having public health insurance.

Functional Recovery; Toileting problem

The study of the physical/functional status hip fracture in elderly varied. All studies included have differences in the time of physical functional recovery. Moreover, the predictor factors influenced the outcomes.

Our study found longitudinal changes over 6 months after hospital discharge after hip fracture surgery for older adults in Indonesia showed different trend between PADL and IADL. The total mean of PADL score had improved at both 3 and 6 months after discharge compared with 1 month, whereas no significant improvement in the total mean of IADL score was detected until 6 months [5] with predictor factors including age, cognitive function, pre walking ability, and facilities [4],[10]. Nurses should take note on how much time has transpired since hospital discharge when

determining appropriate nursing care and rehabilitation interventions for the patients because of the different trajectories of change in PADL and IADL, support for the recovery should include providing home nursing or subacute rehabilitation support that is tailored to the needs of each patient, and interventions and rehabilitation should take into consideration a different recovery periods for PADL and IADL after hospital discharge after hip fracture surgery. Functional status after hip fracture surgery includes losses in physical and instrumental activities of daily living. One of the functional problems is toileting for post hip fracture treatment following hospital discharge (figure 1).
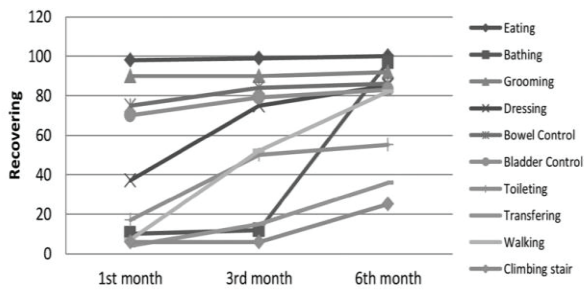

Figure 1: Subscale Scores for Functional Status of Physical Activities of Daily Living (PADLs)

Resource: WANTONORO, Wantonoro[1]; SHYU, Yea-Ing Lotus[2,*]; CHEN, Mei-Ling[3]; TSAI, Hsiu-Hsin[3]; CHEN, Min-Chi[4]; WU, Chi-Chuan[5]. Functional Status in Older Persons After Hip Fracture Surgery: A Longitudinal Study of Indonesian Patients. Journal of Nursing Research: June 2022 - Volume 30 - Issue 3 - p e211 doi: 10.1097/jnr.0000000000000463

Instrumental Toileting Modification

One of the problems on the hip is the hip fracture, that is the fractured or cracked bone located in the hip joint. The fractured bone in the hip fracture is the upper thigh bone, which is called as proximal femur, it is the part of a thigh bone close to the hip. Hip fracture is a painful condition that could disturb the basic needs activity since this condition causes legs function to be impaired. Hip fracture condition needs to be medically treated in order to prevent any hip fracture complication that might occur. Some post-operative hip fracture patients who are in recovery process experience problems that cause longer recovery time and one of the problems is dislocation. Dislocation is a complication occurs when the movement of hip flexion is over 90°. Flexion is a muscle movement to bend two bones; such as

bending arms, legs, when looking down, and when the waist bend to bow. Dislocation occurs when the recovery process of post-operative hip fracture patients which was caused by movement need process in elimination that is when the patient should sit in the sitting toilet so that the legs of post-operative hip fracture patients always bend and form angle of more than 90° between the leg and the body so that it causes dislocation.

The invention of this flexible toilet chair is to support the recovery process of post-operative hip fracture patients in fulfilling their needs during elimination process using a flexible assisted toilet chair that could be adjusted its height from the chair, so that the legs of post-operative hip fracture patients could form an angle that is no more than 90o. Since the height could be adjusted automatically so that it is hoped it could avoid any high risk of dislocation in post-operative hip fracture patients. There are some previous inventions for example a product with patent number CN214909373U entitled Old patient chair for multi-position adjustment rehabilitation therapy medical treatment and CN112569059A entitled Function assisting device. Both inventions are used to help elderly patients to defecate. The feces will be collected in a bedpan. The waste in the bedpan should be removed/cleaned after the elimination process finished.

There is another invention number CN210408249U entitled Pedestal pan getting-up assisting device. This invention is used above the sitting toilet and is not suitable for squat toilet. For that reason, it is not be used for several users with squat toilet characteristics. Moreover, the proposed invention is aimed to overcome the problem stated above. The invention of elimination assisting chair for hip fracture recovery patients provided elimination assisting tools which allows this invention to be applied for either sitting toilet or squat toilet. This invention is completed with assisting system to adjust the range of motion (flexion-extension) that could provide movement comfort in doing range of motion during defecation elimination so that it could prevent dislocation on the post-operative hip fracture patients. For the implementation in the squat toilet, this invention is completed with a drain hose which prevent the faeces to fall down or splashed out of the closet. Watering or rinsing mechanism also ensures that the part of the toilet from the invention as well as the drain hose is always clean after the invention is being used.

Conclusion

Hip fracture needs a long-term treatment including in the elimination needs. An instrumental modification to fulfill toileting is needed in order to prevent the occurrence of hip dislocation for hip

surgery post-operative patients. A concept and development of assisting tool that could help the toileting needs of post hip fracture surgery patients are needed.

References

[1]   H. Hagino, Current and Future Burden of Hip and Vertebral Fractures in Asia*. Yonago Acta Med, 64*(2): p. 147-154, 2021.

[2]   J. M. Broderick, et al., Osteoporotic Hip Fractures: The Burden of Fixation Failure*. The Scientific World Journal*, 2013: p. 515197.

[3]   D. Metcalfe, The Pathophysiology of Osteoporotic Hip Fracture. McGill journal of medicine : *MJM : An International Forum for the Advancement of Medical Sciences by Students, 11*(1): p. 51-57. 2008

[4]   W. Wantonoro, W.Y. Kuo, and Y.L. Shyu, Changes in Health-Related Quality of Life for Older Persons With Cognitive Impairment After Hip Fracture Surgery: A Systematic Review*. J Nurs Res, 28*(3): p. e97, 2020.

[5]   W. Wantonoro, et al., Functional Status in Older Persons After Hip Fracture Surgery: A Longitudinal Study of Indonesian Patients. *J Nurs Res*, 2021.

[6]   B. L. Hayden, et al., No Difference Between Hemiarthroplasty and Total Hip Arthroplasty in the Treatment of Pathologic Femoral Neck Fractures*. J Arthroplasty, 36*(11): p. 3662-3666, 2021.

[7]   Y. Liu, et al., Comparing Total Hip Arthroplasty And Hemiarthroplasty For The Treatment Of Displaced Femoral Neck Fracture In The Active Elderly Over 75 Years Old: A Systematic Review And Meta-Analysis Of Randomized Control Trials. *Journal of Orthopaedic Surgery and Research, 15*(1): p. 215. 2020.

[8]   H. Palm, *Hip Fracture: The Choice of Surgery*, in *Orthogeriatrics: The Management of Older Patients with Fragility Fractures*, P. Falaschi and D. Marsh, Editors, Springer International Publishing: Cham, 2021, p. 125-141.

[9]   E. S. Wantonoro, et al., The First Three Months Of Quality Of Life Of Older Person With Hip Fracture. *life (QoL), 11*: p. 12. 2019.

[10]   W. Wantonoro, et al., Physical Rehabilitation Outcomes in Patients with Dementia Following Hip Fracture Surgery: A Review. *IJNP (Indonesian Journal of Nursing Practices), 4*(2): p. 94-103. 2020.

[11]   K. von Rickenbach, A. Tenforde, and H. Borgstrom, *Hip Fractures and Dislocations*, in *Clinical Guide to Musculoskeletal Medicine: A Multidisciplinary Approach*, S.A. Mostoufi, T.K. George, and A.J. Tria Jr, Editors. 2022, Springer International Publishing: Cham. p. 393-401.

[12]   H. H. Ma, et al., Long-term results in the patients with traumatic hip fracture-dislocation: Important prognostic factors. *Journal of the Chinese Medical Association, 2020. 83* (7), 2020.

[13]   J. Swayambunathan, et al., Incidence of Hip Fracture Over 4 Decades in the Framingham Heart Study. *JAMA Intern Med, 180*(9): p. 1225-1231. 2020.

[14]   P. Nordström, et al., Trends in Hip Fracture Incidence, Length of Hospital Stay, and 30-Day Mortality in Sweden from 1998–2017: A Nationwide Cohort Study. *Calcified Tissue International, 111*(1): p. 21-28. 2020.

[15]   S. R. Pekonen, et al., Regional and gender-specific analyses give new perspectives for secular trend in hip fracture incidence. *Osteoporosis International, 32*(9): p. 1725-1733. 2021.

[16]   Lu, Y. and H.S. Uppal, Hip Fractures: Relevant Anatomy, Classification, and Biomechanics of Fracture and Fixation. *Geriatr Orthop Surg Rehabil, 10*: p. 2151459319859139, 2019.

[17]   L. Bateman, et al., Medical management in the acute hip fracture patient: a comprehensive review for the internist. *Ochsner J, 12*(2): 2012. p. 101-10.

[18]   T. Frenkel Rutenberg, et al., Outcome of non-surgical treatment of proximal femur fractures in the fragile elderly population., *Injury, 50*(7): p. 1347-1352, 2019

[19]   A. L. Siu, et al., Early ambulation after hip fracture: effects on function and mortality. *Arch Intern Med, 166*(7): p. 766-71. 2006.

[20]   J. L. Pederson, et al., The Impact Of Delayed Mobilization on Post-Discharge Outcomes After Emergency Abdominal

Surgery: A Prospective Cohort Study in Older Patients., *PLOS ONE, 15*(11): p. e0241554, 2020.

[21]   F. J. Amarilla-Donoso, et al., Quality Of Life After Hip Fracture: A 12-Month Prospective Study..: p. e9215-e9215. 2020.

[22]   P. Kelly-Pettersson, et al., The Influence of Depression On Patient-Reported Outcomes for Hip-Fracture Patients 1 Year After Surgery: A Prospective Cohort Study. *Aging Clinical and Experimental Research, 32(*2): p. 247-255. 2020

[23]   C. Fogg, et al., Hospital Outcomes Of Older People With Cognitive Impairment: An Integrative Review. *Int J Geriatr Psychiatry, 33*(9): p. 1177-97. 2018.

[24]   F. Kracht, F., et al., Describing people with cognitive impairment and their complex treatment needs during routine care in the hospital – cross-sectional results of the intersec-CM study. *BMC Geriatrics, 21*(1): p. 425.2021.

[25]   L. Wang, et al., Muscle Density Discriminates Hip Fracture Better Than Computed Tomography X-Ray Absorptiometry Hip Areal Bone Mineral Density. *Journal of Cachexia, Sarcopenia and Muscle, 11*(6): p. 1799-1812. 2020.

[26]   M. Visser, M., et al., Change In Muscle Mass And Muscle Strength After A Hip Fracture: Relationship to Mobility Recovery, *The Journals of Gerontology: Series A, 55*(8): p. M434-M440, 2000

[27]   D. L. Judd, D.G. Eckhoff, and J.E. Stevens-Lapsley, Muscle Strength Loss in the Lower Limb After Total Knee Arthroplasty. *American Journal of Physical Medicine & Rehabilitation, 91*(3), 2012.

[28]   R. Ramírez-Martín, et al., Comprehensive Geriatric Assessment for Identifying Older People at Risk of Hip Fracture: Cross-Sectional Study With Comparative Group*. Family Practice, 2017. 34*(6): p. 679-684.

[29]   J. Magaziner, et al., Changes in Functional Status Attributable to Hip Fracture: A Comparison of Hip Fracture Patients to Community-Dwelling Aged*. Am J Epidemio,. 157*(11): p. 1023-31, 2003.

[30]   R. T. Sutton, R.T., et al., An Overview of Clinical Decision Support Systems: Benefits, Risks, and Strategies for Success. *NPJ Digital Medicine, 2020. 3*(1): p. 17. 2020.

[31]   E. Dubljanin Raspopovic, et al., Instrumental Activities of Daily Living-A Good Tool to Prospectively Assess Disability after a Second Contralateral Hip Fracture? *Geriatrics 5*(4): p. 67. 2020.

[32]   M. Ganczak, K. Chrobrowski, and M. Korzeń, Predictors of a Change and Correlation in Activities of Daily Living after Hip Fracture in Elderly Patients in a Community Hospital in Poland: A Six-Month Prospective Cohort Study. *Int J Environ Res Public Health,15*(1). 2018.

[33]   G. L. D. Pietra, et al., Validity and Reliability of the Barthel Index Administered by Telephone. *Stroke, 42*(7): p. 2077-2079. 2011.

[34]   D. T. Wade, and C. Collin, The Barthel ADL Index: A Standard Measure Of Physical Disability?, *International Disability Studies, 10*(2): p. 64-67. 1988.

[35]   A. P. Mayoral, et al., The Use of Barthel Index for The Assessment of The Functional Recovery After Osteoporotic Hip Fracture: One Year Follow-Up. *PLoS One, 14*(2): p. e0212000. 2019.

Achieve Marketing Strategies in Society 5.0 Era by Understanding Consumer Behavior Offline vs Online

Wiwik Maryati[1]

Introduction

It is undeniable that evolution in the world of marketing continues to occur starting from traditional marketing (marketing 1.0) until now marketing 5.0. In each era it has shown a trend of change that demands the marketing field must adapt to these changes. Of course changes in the world of marketing are also followed by changes in consumer behavior.

Consumer behavior in the marketing era 1.0 to 3.0 is still oriented towards traditional marketing, of course consumer behavior is also still more focused on offline purchases. Then start switching from offline to online or vice versa from online to offline behavior which is known as the marketing era 4.0. Whereas in the era 5.0 behavior towards digitalization is much more visible because technology is also increasingly sophisticated. This is as stated in the article "that the movement towards marketing 5.0 is driven by 5 large trends. The five trends are such a large generation of digital-savvy, adoption of phygital lifestyle, digitalization dilemmas (positive and negative impacts), increasingly mature technological developments, and symbiosis between humans and technology that can no longer be separated [1]."

Consumer behavior arises because of the urge to meet the needs of life. The occurrence of consumer behavior activities, of course, through a process in a person starting from him looking for information, considering information to decide to buy or consume [2, pp.194]. Decisions in purchasing sometimes occur because of planning and sometimes without planning. Of course the decision that occurs without previous planning in purchases is very much awaited by business actors. The more consumers who buy without planning, the more business sales will increase. Therefore we need a strategy to move consumers so that the greater purchasing power without planning arises from within themselves.

The strategy to move consumers to buy without a plan that can be called impulse buying is to create a shop environment that is

[1] Department of Business Administration, Darul Ulum Islamic Boarding School University, Indonesia, email: wiwikmaryati@fia.unipdu.ac.id

able to trigger the attractiveness to buy. The shop environment is built from an attractive physical appearance and a pleasant shopping atmosphere will cause weak self-control and lead to sudden purchases without planning.

This article aims to examine the extent of marketing strategies 5.0 can be achieved in the context of understanding consumer behavior. In this case by knowing the behavior of offline consumer shopping and online consumers, if marketing 5.0 can be achieved in the current era of Society 5.0.

Discussion

Basically Society 5.0 is a concept of society that is centered on humans and is based on technology. This concept arises with the response of the presence of the Industrial Revolution 4.0 where the needs of society will be more easily fulfilled and accelerate human work because it is assisted by increasingly sophisticated and integrated technology. The purpose of this 5.0 era update is to create new values by collaborating and cooperating with various information systems and technology that are developing rapidly and able to improve the quality of human resources needed or called Human Capital [3].

Based on the concept above, providing an understanding that the community in the 5.0 era is expected to be able to solve the challenges and problems in this life by utilizing the innovation of the application of information technology, including the fulfillment of the goods needed/purchase. In previous studies, it has shown that sudden purchases without planning can occur to offline or online consumers where the trigger is the atmosphere of the shop environment. Both in the offline and online store environment, his control will become weak if the shop environment provides visual and non -visual attractions that can cause a pleasant atmosphere so that they will make a spontaneous purchase and without a plan [4], [5], [6], [7], [8], [9], [10].

As the article states "that what makes a person made a sudden and without plan related to what he felt in the shopping situation in the store, such as the characteristics of the shop environment, individual factors (enjoying shopping) and situational characteristics (time availability, availability of money) [11], [7]". The characteristics of the shop environment include 3 things, namely ambient characteristics, design characteristics and social characteristics. Ambient characteristics are related to non -visual conditions in the retail environment such as lighting, cleanliness and music. Design characteristics in this case are visual and physical factors of the shop environment related to architecture, colors, materials, styles and also

the difference in stores with one another. Especially in this case product differences and lower prices and differences in the lifestyle of consumers and social classes. While social characteristics are related to personality, consumer type, shop employee appearance (sales person) [12].

In addition to the characteristics of the shop environment, shopping situations in stores are also related to situational characteristics and aspects of individuals who enjoy shopping. According to article "spontaneous purchases and without a plan can be associated with the situation felt by consumers when shopping [13]". In this case consumer perceptions and behavior are often moderated by the situation at that time [14]. Therefore the availability of time and conditions that cause this situational characteristics [15]. Thus the shopping situation in the store can be interpreted by the atmosphere faced/experienced by a consumer from the shop environment both physical and non -physical aspects. In the article state that "the trigger for self -control is a shopping activity triggered by the shopping environment, and this is what makes rational or irrational purchases emerged [16]".

In online purchasing behavior, shopping situations in online stores that cause weak self -control resulting in spontaneous purchases and without plans are usually associated with website quality [16]. In this case stated "that there are 5 components of the quality of the website that make people make purchases. These 5 components are, the ease of use, uses, related to things that are entertaining/fun (entertainment), complementary relationships and customer service [16]". In this entertainment component includes visual interest (website design), innovative website design and emotional attractiveness.

This study was conducted on adolescent consumers aged 18-27 years who made purchases both offline and online on hijab fashion products. Respondents were chosen from this age consumer because this age group was classified as a group that had high purchasing power and was open to new experiences, including in terms of use of technology. Of course this will affect their lifestyle both in terms of trying something new in appearance (fashionable) and in their buying behavior by utilizing technology [17].

The results showed that shopping situations in offline stores and online stores were able to trigger weak control that had an impact on spontaneous purchases and without planning. This means that the shopping situation in the store allows consumers to adapt to the pleasant shop environment so as to make his control low and there is an impulse of purchases.

In this case the shopping situation in online stores is more able to make consumers weakly control because smart consumers always compare the costs he has spent with the possibility of the risks he will receive later. This is what makes them uncontrolled when they are in an online store because the goal is to be able to explore more information related to the items to be purchased so that there is no risk. The longer they are exposed to shopping situations in the store in such a way that the more it makes him also unable to control purchases without planning. In addition, the situational factors of this consumer are very supportive, namely the availability of time so as to make it free to carry out the process of finding information in online stores.

The results of this study have provided support for previous studies [6], [9]. The results of his research stated that the shopping situation in the store had a strong influence on the weakness of self - control that had an effect on unplanned purchases. Previous research this has shown a person's inability to make changes to himself and adapt to the conditions that should be uncontrolled as a self - controlled effect so as to make spontaneous purchases and without plans [6].

The results of the above research provide a theoretical contribution that the behavior of a consumer cannot be controlled when the person is unable to adapt, especially with the online store environment, so that there is a sudden purchase without planning and long thinking. Thus online consumer behavior controls his control is more easily influenced if stimulated by the shopping environment in stores rather than offline consumer behavior. In the study of consumer behavior this provides an understanding that offline consumers and online consumers have differences in self -control in unplanned purchasing behavior or impulses caused by shopping situations in the shop environment. Although the shopping situation at offline and online stores can move the purchase appeal, but the environment in online stores can be more intended in buying impulses both because of the appearance of shop sites, ease of accessing and availability of time that makes it possible for consumers.

The managerial contribution that is produced from this study is that management can find out that the type of consumer aged 18-27 years is classified as an easy and familiar consumer group in the use of technology, so that it has the potential to carry out e-commerce activities. Of course this can be an opportunity for businesses to further enhance online store websites both in terms of creativity, innovation and price offers that are affordable for their purchasing

power. This will all later be able to trigger irrational purchases because the more often a consumer interacts with the shop environment the more easily he is stuck by the shopping situation at the store

The results of this study also show that understanding consumer behavior in different types of purchasing will be easy for companies to make proper marketing strategies in the Society 5.0 era. In this case to achieve Society 5.0 in the business world it is very possible to be done considering that consumers who often buy without planning and long thinking are adolescent consumers, especially early adult age groups. Consumers of this group are familiar consumers of the use of information technology so that they prefer to complete their affairs precisely in terms of fulfilling goods/products done with the use of technology. By knowing the information technology user segment that is often impulse in purchasing is this group, it will be easy for companies to design the shop/website environment or provide products to adjust to the characteristics of this segment so that the buyers of impulses will be more and more sales.

Conclusion

This study examines the extent of marketing strategies in the Society 5.0 era can be achieved in the context of understanding offline and online consumer behavior. Actions to fight purchasing behavior spontaneously and without plan are very dependent on a person's capacity in controlling himself. Self -control can be weak when consumers are stimulated by shopping situations in the shop environment.

The results showed that when stimulated by the shop environment in such a way that self -control became weak so that spontaneous purchases arose without planning. Self -control with online consumers is more easily influenced if stimulated by shopping situations in stores rather than offline consumer behavior. Therefore to be able to achieve an effective marketing strategy in the Society 5.0 era it would be better to understand consumer behavior in different types of purchases first. By knowing the type of purchase on online consumers who are more easily triggered by their controls on unplanned purchases, business actors can further motivate the role of websites in attracting consumer buying interest.

Reference

[1]   A. B. Syana, "Menyambut Era Marketing 5.0 Technology For Humanity",   https://www.marketeers.com/menyambut-era-

marketing-5-0-technology-for-humanity, diakses 4 Nopember 2022.

[2]	P. Kotler, and K.L. Keller, *Marketing Management,* Edisi 15. London: Pearson Education, 2016.

[3]	M. I. Faadil, "Apa Itu Konsep Masyarakat 5.0? Relevankah di Indonesia ?", https://medium.com/ia-icp/society-5-0-apa-itu-konsep-masyarakat-5-0-relevankah-di-indonesia-2d65a158302, diakses 3 Nopember 2022.

[4]	D. H. Silvera, A. M. Lavack, and F. Kropp, "Impulse Buying: The Role of Affect, Social Influence and Subjective Wellbeing", *Journal Of Consumer Marketing*, vol. 25, no 1, pp. 23-33, 2008. https://doi.org/10.1108/07363760810845381

[5]	L. Janssen et al., "The Path of Least Resistance: Regulatory Resource Depletion and The Effectiveness of Social Influence Techniques", *Journal Of Business Research*, vol. 61, pp. 1041-1045, 2008. https://Doi:10.1016/j.jbusres.2007.09.013

[6]	K. L. Haws, W. O. Bearden, and G. Y. Nenkov, "Consumer Spending Self Control Effectiveness and Outcome Elaboration Prompts", *Journal of The Academic Marketing Science*,vol. 40. Pp. 695-70, 2012. https://Doi:10.1007/s11747-011-0249-2

[7]	H. J. Chang, R. N. Yan, and M. Eckman, "Moderating Effects of Situasional Characteristics on Impulse Buying", *International Journal Of Retail And Distribution Management,* vol 42, no. 4, pp. 298-314, 2014. Doi:10.1108/IJRDM-04-2013-0074

[8]	R. LaRose, "On The Negative Effects of E-commerce: A sociocognitive Exploration of Unregulated Online Buying", *Journal of Computer Mediated Communication*, vol. 16, 2001. https://doi.org/10.1111/j.1083-6101.2001.tb00120.x

[9]	R. LaRose, and M. S. Eastin, "Is Online Buying Out of Control? Electronic Commerce and Consumer Self Regulation", *Journal Of Broadcasting & Electronic Media*, vol. 46, no.4, pp. 549-564, 2002. DOI:10.1207/s15506878jobem4604_4

[10]	C.A. Turkyilmaz, S. Erdem, and A. Uslu, "The Effects of Personality Traits and Website Quality on Online Impulse Buying", *Procedia Social And Behavioral Science*, vol. 175, pp. 98-105, 2015. https://doi.org/10.1016/j.sbspro.2015.01.1179

[11]	S. E. Beatty and M.E. Ferrel, M.E., "Impulse Buying: Modelling Its Precursors", *Journal Of Retailing*, vol. 74, no. 2, pp. 169-191, 1998. https://doi.org/10.1016/S0022-4359(99)80092-X

[12]	R. W. Turley and R. E. Milliman, "Atmospheric Effects On Shoping Behavior: A Review Of The Experimental Evidence", *Journal Of Business Research*, vol. 49, no. 2, pp. 193-211, 2000. https://doi.org/10.1016/S0148-2963(99)00010-7

[13] P. Sharma, B. Sivakumaran, and R. Marshall, "Exploring Impulse Buying and Variety Seeking by Retail Shoppers : Toward A Common Conceptual Framework", *Journal Of Marketing Management*, vol. 26, no. 5-6, pp. 473-494, 2010. http://dx.doi.org/10.1080/02672570903485097

[14] D. Grewal, H. Marmorsteil, and A. Sharma, "Communicating Price Information Through Semantic Cues: The Moderating Effect of Situation and Discout Size", *Journal Of Consumer Research*, vol. 23, no. 2, pp. 148-155, 1996. https://doi.org/10.1086/209473

[15] L. Zhou and A. Wong, "Consumer Impulse Buying and In Store Stimuli in Chinese Supermarkets", *Journal of International Consumer Marketing*, vol. 16, no. 2, pp. 37-53, 2004. https://doi.org/10.1300/J046v16n02_03

[16] E.T. Loiacono, T.W. Richard, and L.G. Dale, "Webquel: A Measure of Website Quality. *In AMA Winter Conference*. Austin. TX, 2002. https://www.academia.edu/2832098/WebQual_A_measure_o f_website_quality

[17] L. Mandhlazi, M. Dhurup, and C. Mafini, "Generation Y Consumer Shopping Styles: Evidence From South Africa. *Medditerranian Journal Of Social Science*, vol. 4, no. 14, pp. 153-164, 2013. DOI:10.5901/mjss.2013.v4n14p153

The Benefit of Comparative Literature in BIPA Learning

Yulianeta[1]

Introduction

In accordance with the Graduate Competency Standards in the Regulation of the Ministry of Education and Culture of the Republic of Indonesia Number 27 of 2017, folklore is one of the teaching materials in intermediate level BIPA learning. Folklore texts represents the competence of 'Being able to re-express the moral messages in fairy tales or folklore'. In this phase, students are expected to be able to identify sentences or groups of sentences that contain a moral message in fairy tales or folklore, and to be able to compare Indonesian fairy tales and folktales that are similar to the one in the student's country of origin. Based on the preliminary study, there was an interview with BIPA teachers at university in Japan, it was found that BIPA teachers at Nanzan University used simple folklore texts to introduce Indonesian folklore. According to a BIPA teacher at Nanzan University, the number and variety of folklore texts in teaching materials is still very limited. The teacher admits that it is still difficult to find Indonesian folklore texts that are appropriate to the language development of intermediate-level BIPA students, especially those that have values worth exploring and topics for discussion. Even though teachers can look for various sources from the internet, the available folklore is not sufficient or suitable for use in learning.

In addition, the Ministry of Education and Culture has provided folklore texts in *Sahabatku Indonesia*. BIPA institutions generally use this teaching material provided by the Center for Language Strategy and Diplomacy Development, Language Development and Development Agency, Ministry of Education and Culture of the Republic of Indonesia. However, the number of folklore texts contained in teaching materials is still very limited. The information contained in the texts has not been thoroughly reviewed. Cultural information in cultural records is also limited. All of these limitations exist even though Indonesian folklore texts are numerous. The values contained in Indonesian folklore texts also

---

[1] Indonesia University of Education, yaneta@upi.edu

vary, such as cultural values, tourism values, social values, local wisdom values, and so on.

Based on this phenomenon, the provision of teaching materials and enrichment materials is urgently needed. Students find it difficult to apply the Indonesian language properly and correctly if it is not accompanied by knowledge of the socio-cultural aspects of the Indonesian society [1] [2]. Therefore, the provided teaching materials must contain Indonesian cultural values. A cultural strategy is indispensable in supporting the success of the BIPA program. One of these efforts is to bridge cross-cultural understanding in BIPA learning through comparative literature. Literature, including folklore, can be a strong bridge in supporting cross-cultural understanding [3] [4] [5] [6]. The students' culture can also help in that regard. In addition to providing convenience, knowledge about Indonesian culture can also be increasingly recognized on the international stage. The introduction and learning of Indonesian through literature, especially folklore as supporting teaching materials, will be more lively and interesting, and will provide a different experience compared to the usual formative core material [7].

Folklore usually provides an overview of the culture where the story originates. In the BIPA context, differences in background knowledge about the culture of students' countries and Indonesian cultural backgrounds are correlated with each other. This difference can be used as a comparison to make it easier for students to understand Indonesian through Indonesian culture. This can be realized by comparing the folklore of two countries, such as Japan and Indonesia. The number of BIPA students from Japan is in the top six [8]. This large number of students opens up opportunities to provide teaching materials related to their culture. Several Indonesian and Japanese folk tales, especially fairy tales, have the same types of stories and story motifs that make it interesting to do comparative research [3].

In addition to textbooks, the presentation of material that allows students to learn independently is in the form of non-text textbooks or better known as enrichment materials. Enrichment materials can support the learning process flexibly. In formal situations, teachers can use enrichment materials as a complement to teaching materials or as independent and group assignments. In non-formal situations, enrichment materials can be studied independently by teachers and students to fulfill the information needs related to folklore texts. It can also be used as a complement to literacy, especially Indonesian cultural literacy. Enrichment

materials are considered to be able to overcome time constraints because students can continue learning beyond the time allotted for learning activities. In addition, enrichment materials are said to be able to overcome differences in student characteristics, because students who can learn quickly do not need to wait for other students. Likewise, students who need to repeat can do so without disturbing the activities of other students so that the concept of independence in learning can be maximally formed.

Discussion
Comparative Literature Studies in BIPA Learning

Folk tales as a literary genre keep the spirit of humanity, social morality, and cultural traditions from one generation to the next. Geographical differences with the social, cultural, political and linguistic diversity of a nation always have general similarities, both in terms of values, moral messages, or universal humanitarian issues [9] [10]. Folklore occupies a strategic position in an effort to bridge cross-cultural understanding of BIPA students so that students can understand the cultural background of the language being studied (Indonesian) in a comprehensive manner. Therefore, folklore can be used as material for comparative literature studies.

Comparative literature research is a cutting-edge study that is able to describe a country's cultural identity thereby strengthening cross-cultural understanding, especially in the world of education [11] [12]. Comparative literary research is essentially able to apply cross-cultural understanding and become an interdisciplinary study for world literature in analyzing literary phenomena. Talking about comparative literature, it cannot be separated from discussions about world literature [13] [14]. This idea is embodied in the concept of comparative literature which emphasizes cross-cultural understanding of literary works originating from two or more countries.

In comparative literary research, data objects that can be used include two documented folk tales from Indonesia and from other countries. The two folk tales from Indonesia and other countries illustrate cultural similarities with certain ideas that have the potential to strengthen BIPA learners. This is inseparable from the working principle of comparative literature which has two ways. First, comparative literature compares the presence of language and literature within a nation or across countries. Second, comparative literature reveals a comparison of literature with scientific disciplines [15]. In this context, the implementation of research can use comparative literature to examine the similarity of the folklore

of the two countries as an alternative teaching material that combines cultural ties to support BIPA learning.

Examples of Comparative Literature Studies Implementation in BIPA Learning

An example of the implementation of comparative literature studies that has been done is a research conducted by Yulianeta, et al [16] with the title "A Comparative Literature Study on Indonesian and Japanese Folklore as BIPA Teaching Materials Based on Cross-Cultural Understanding". From this research, it can be seen that folklore can reflect a society with cultural values that can provide cross-cultural understanding between countries. It was found that there are similarities between Indonesian folklore and Japanese folklore. The folklore studied in this study are *Timun Mas* and *Momotaro*, *Si Kelingking* and *Issun Boshi*, and *Ni Anteh Pergi ke Bulan* and *The Tale of the Bamboo Cutter*. The six stories have similarities and differences that make it easier for BIPA students to apply them in cross-cultural based teaching materials. The similarity of cultural values can be seen from (1) cultural values in the essence of human life, namely dedication and courage; (2) cultural values in the nature of human work (3) cultural values in the essence of human relations with the natural surroundings, namely utilizing natural resources; and (4) cultural values in the essence of human relations with one another, namely love.

Meanwhile, the six stories also have different cultural values, including (1) cultural values in the essence of human life, namely wisdom and belief. Wisdom is found in *Timun Mas* and *Momotaro* as well as *Ni Anteh Pergi ke Bulan* and *The Tale of the Bamboo Cutter*, but not in *Si Kelingking* and *Issun Boshi*; (2) the cultural value in the essence of human work contained in the six stories is determination. Determination is found in *Timun Mas, Momotaro, Ni Anteh Pergi ke Bulan, The Tale of the Bamboo Cutter*, but not in *Si Kelingking* and *Issun Boshi*; (3) the nature of human position in space and time. *Timun Mas, Momotaro, Ni Anteh Pergi ke Bulan*, and *The Tale of the Bamboo Cutter* have cultural values of making good use of time, while *Si Kelingking* and *Issun Boshi* are oriented towards the future; (4) the essence of the human relationship with the surrounding nature contained in the six stories is to maintain the balance of nature. Maintaining the balance of nature is found in *Timun Mas, Momotaro, Ni Anteh Pergi ke Bulan*, and *The Tale of the Bamboo Cutter*, but not in *Si Kelingking* and *Issun Boshi*; and (5) the essence of human relations to one another contained in the six stories is quite varied. The cultural value of friendship is found in *Timun Mas, Momotaro, Si*

Kelingking, Issun Boshi and *Ni Anteh Pergi ke Bulan*. The cultural value of teamwork is found in *Timun Mas, Momotaro,* and *Ni Anteh Pergi ke Bulan*. The cultural value of discussion is found in *Timun Mas, Momotaro, Ni Anteh Pergi ke Bulan,* and *The Tale of the Bamboo Cutter*. The cultural value of world peace is found in *Momotaro, Si Kelingking,* and *Issun Boshi*. The cultural value of forgiveness is found in *Momotaro, Issun Boshi,* and *Ni Anteh Pergi ke Bulan*. Finally, the cultural value of marriage is only found in *Ni Anteh Pergi ke Bulan* and the *Tale of the Bamboo Cutter.*

The results of the study on the Indonesian folklore and Japanese folklore were then used as material for making the enrichment materials [17]. This enrichment material has cross-cultural content with the development of knowledge formed by BIPA students as its users. The following is the cover design for the e-book.

Figure 1. Indonesian-Japanese Folklore E-Book Cover

The process of cross-cultural understanding in this enrichment book is contained in the evaluation section which looks at the level of understanding of book users about cultural elements in folklore. The identified cultural elements are several cultural elements according to Koentjaraningrat [18], namely (1) religious systems; (2) social systems and organizations; and (3) livelihood systems. There are six folktales, three folktales from Indonesia and three folktales from Japan. The three folk tales from each country are in pairs. First, *Timun Mas* and *Momotaro*. In the evaluation section, students are asked to distinguish cultural elements of "belief" and cultural elements of "family" or social organization. Next, *Si Kelingking* and *Issun Boshi*, students are asked to identify the differences in the cultural elements of "work" in the two folktales.

Finally, *Ni Anteh* and *The Bamboo Cutter*, students must explain the differences in the cultural elements of "female figure" of the two folktales. This process of identification and understanding is in accordance with the function of cross-cultural communication presented by Samovar, Porter, & McDaniel [19]. According to them, the function of communication in cross or intercultural communication are as follows: (1) gaining extensive knowledge about the communicant, which includes all socio-cultural backgrounds, (2) meeting the needs of each individual, (3) forming a personal identity, and (4) influencing the attitudes and actions of others.

Brown [20] argued that openness to different cultural and linguistic patterns can facilitate second language learning. He observes that learning a second language is often learning a second culture. Brown also stated that there are four stages of cultural adjustment that people go through when adapting to and learning about a new culture: the euphoria or honeymoon stage; the culture shock stage; cultural stress stage; and recovery stage. Schumann in Brown [20] hypothesized that the greater the social distance between two cultures, the greater the difficulties students have in learning a new language; the less social distance, the less difficulty learners will experience. Then he summarized his views: "The extent to which a learner acculturates with the target language group will control the extent to which he or she acquires a second language". This theory is commonly known as the acculturation theory [21].

If regards to the acculturation theory, the existence of enrichment books of Indonesian-Japanese folklore acts as a learning tool that can be used by students as a source of language as well as cultural information. The Indonesian-Japanese folklore used in this enrichment book has similarities in storyline, but has differences in the cultural content. This enrichment book can be used independently by BIPA students to deepen their understanding of Indonesian culture by comparing their own culture in Japan. It is hoped that students will have sufficient knowledge in understanding culture and feel closer to Indonesian culture.

Conclusion

Comparative literature studies can be used as an alternative BIPA learning material. An example is the study of Indonesian and Japanese folklore texts, or Indonesian and other countries. The results of the study of these two folktales convey valuable messages of cultural knowledge and moral messages. The cultural knowledge and moral messages conveyed in the two stories can be alternative

teaching materials in making teaching materials or culture-based enrichment materials for Intermediate-level BIPA students. The similarities and differences of these two stories are a challenge for BIPA learners in understanding the culture of the Indonesian language they are learning. However, indirectly, BIPA learners are required to interpret the national culture they are studying by reflecting on their own culture so that local wisdom values from the two countries become a solid bridge. This certainly has the potential to facilitate the understanding of BIPA students because it is connected to cultural similarities as recorded in the folklore of the two countries.

References

[1] Kusmiatun, A., Suyitno, I., Widodo, H. S., & Basuki, I. A. "Identifying features of Indonesian for speakers of other languages (BIPA) learning for academic purposes." *International Journal of Social Sciences & Educational Studies*, vol. 3, no. 4, p. 197, 2017.

[2] Listyaningsih and Wahyu W. "Pengembangan Materi Pembelajaran BIPA Bermuatan Budaya Bagi Penutur Asing Tingkat Menengah." *Communicating Across Cultures: The Role of Learning and Teaching of Language and Literature in the Era of ASEAN Economic Community (AEC). ITS Press,* pp. 29-40, 2016.

[3] Danandjaja, J. *Folklor Indonesia: Ilmu Gosip, Dongeng, dan lain lain.* Cetakan V. Jakarta: PT Pustaka Utama Grafiti, 1997.

[4] Armstrong, J. "Empiritexts: Mapping attention and invention in post-1980 French literature. In French Forum, vol. 40, No. 1, pp. 93-108, 2015, University of Pennsylvania Press.

[5] Chapelle, C. A. *Teaching culture in introductory foreign language textbooks.* Springer, 2016.

[6] Tötösy de Zepetnek, S., & Vasvári, L. O. About the Contextual Study of Literature and Culture, Globalization, and Digital Humanities. *Companion to Comparative Literature, World Literatures, and Comparative Cultural Studies.* Ed. Steven Tötösy de Zepetnek and Tutun Mukherjee. New Delhi: Cambridge UP India, 3-35, 2013.

[7] Alaini, N. N., & Lestariningsih, D. N. *Cerita rakyat sebagai referensi pembelajaran BIPA, teknik pengajaran bahasa Indonesia melalui cerita rakyat putri mandalika.* In Asile 2014 Conference, pp. 29-30, 2014.

[8]   Ministry of Education and Culture. *Pedoman Teknis Lomba Penulisan Naskah Buku untuk Guru Pendidikan Menengah.* Jakarta: Direktorat Pembinaan Guru Pendidikan Menengah Kementrian Pendidikan dan Kebudayaan, 2017.

[9]   Tarakcioglu, A. O. A Comparative Analysis of Folk Tales: A Multicultural Perspective. Lifelong Learning: Comenius 2.1. Multilateral Projects. Gazi University: Education, Audiovisual & Culture Executive Agency, 2008.

[10]   Mahayana, M. S. *Nilai Budaya dalam Cerita Rakyat Korea-Indonesia.* International Seminar "Toward a Better Cooperation between Indonesia and other Countries: Prospect and Retrospect", Fakultas Ilmu Budaya, Universitas Indonesia, 7 Agustus 2010.

[11]   Skulj, J. "Comparative Literature and Cultural Identity." *CLCWeb: Comparative Literature and Culture,* vol. 2, no. 4, pp. 1-7, 2000.

[12]   Paige, R. M. & Helen, J. *Culture Learning in Language Education: A Review of the Literature.* Paper Kerja. Unpublished, n.d.

[13]   Saussy, H. Comparisons, World Literature, and The Common Denominator. Dalam A. Behdad & D. Thomas, A Companion to Comperative Literature, pp. 60-64, 2014. USA: Blackwell Publishing Ltd.

[14]   Forsdick, C. "Worlds in Collision:" The Language and Locations of World Literature. In A. Behdad & D. Thomas, *A Companion to Comperative Literature*, pp. 473-489, 2014. USA: Blackwell Publishing Ltd.

[15]   Halimah, H., Yulianeta, Y., & Sembiring, S. U. B. *Sastra Bandingan Sebagai Alternatif Bahan Ajar dalam Pembelajaran Bahasa Indonesia Bagi Penutur Asing (BIPA).* In *Seminar Internasional Riksa Bahasa,* 2019.

[16]   Yulianeta, et al. A Comparative Literature Study on Indonesian and Japanese Folklore as BIPA Teaching Materials Based on Cross-Cultural Understanding. Penelitian Hibah LPPM UPI, 2021. Bandung.

[17]   Yulianeta, et al. The Development of Indonesian-Japanese Folklore E-Book as A Cross-Cultural-Based Enrichment Material for Intermediate Level BIPA Class. Penelitian Hibah LPPM UPI, 2022. Bandung

[18]   Koentjaraningrat. *Pengantar Ilmu Antropologi.* Jakarta: Aksara Baru, 1985.

[19]   Samovar, L. A., Porter R. E. & Mc Daniel, E. R *Intercultural Communication A Reader Ninth Edition*. Belmont: Wadsworth, 2010.

[20]   Brown, H. D. 'The Optimal Distance Model of Second Language Acquisition." *TESOL Quarterly,* vol. 14, pp. 157-64, 1980.

[21]   Citron, J. L. "Can cross-cultural understanding aid second language acquisition? Toward a theory of ethno-lingual relativity.: *Hispania*, pp. 105-113, 1995.

Marketing Mix in Toursim

Zakiyah Zahara[1]

Introduction

Tourism is often defined as the provision of services to people who travel and stay outside their usual place of residence for a period shorter than one year, during holidays or for business purposes [1]. Tourism activities are a combination of the use of tourism products such as transportation, accommodation, infrastructure, attractions, and support services (Melese & Belda, 2021). The key role in achieving the competitive position of enterprises and tourism is marketing, as the main feature of any economic activity through operational performance in achieving the most optimal combination of marketing mix [1].

Based on the United Nations World Tourism Organization/UNWTO [2], the questions that drive the determination of tourism sustainability indicators can be described as follows:

A. Socio-cultural: how do (marketing mix elements) show respect for the socio-cultural authenticity of the host community, preserve cultural history and traditional values, and contribute to intercultural understanding and tolerance?

B. Environment: how to make the best use of natural resources, conserve important ecological processes, and help conserve nature and biodiversity?

C. Economics: how (marketing mix elements) ensure long-term operations that provide long-term social benefits that are distributed equitably to all stakeholders, including stable jobs and income-generating opportunities, as well as social services to local communities; and contribute to poverty alleviation?

Tourism Phenomenon in Indonesia

The COVID-19 outbreak has devastated Indonesia's tourism industry and creative economy. The number of foreign tourists entering Indonesia decreased dramatically from February 2020, the highest in April 2020 which was only 158,000 foreign tourists [3]. The total number of international visitors entering Indonesia in 2020 is only around 4,052 million people. This ratio is very worrying,

---

[1] Faculty of Economics and Business, Tadulako University, Palu-Indonesia, zakiyah66.zm@gmail.com

because it only represents about 25% of the total number of visitors visiting Indonesia in 2019. This has an impact on state revenues in the tourism sector as well. The presence of a significant social presence, as well as limited access in and out of Indonesia, within a budget of Rp. The decline in state revenues of 20.7 billion in the tourism industry. The following is data on the number of tourist visits to Indonesia in 2020-2021.

Figure 1. Statistics of International Tourist Visits in Indonesia in 2020-2021
Source: Kemenparekraf [3]

The graph above depicts information on tourist visits to Indonesia through all entries in December 2021 as many as 163,619 visits, down -0.28% from December 2020 which amounted to 164,079 visits. Based on nationality, the most foreign tourist visits in December 2021 in all entries came from Timor Leste (84,975 visits), Malaysia (48,728 visits), Papua New Guinea (4,880 visits), and China (84.975 visits). 4,513 visits, including a total of 2,324 trips to Russia.

The ability to adapt, innovate, and collaborate is very important for tourism actors to survive in the midst of a pandemic. The reason is, currently community actors are experiencing changes that are accompanied by a shift in tourism habits. To reduce this, a planning (tourism marketing) is needed to stimulate tourism in such a way that it affects visitor visits [4].

Discussion

Based on the statement of Koc & Ayyildiz [5] and Morrison [6] the marketing mix consists of 10 elements consisting of (*Product, Price, Place, Promotion, Physical Evidence, Participants,*

Process, Progamming, Packaging, partnership).

Figure 2. Marketing Mix in Tourism
Source : Holienčinová [7]

The concept of the marketing mix is an ideal predictor for examining what tourism organizations are doing today and how they can meet the increasing demands of sustainability more precisely. The elements of the marketing mix are captured in the organization's core values, which reflect the nature of its relationships with key stakeholders, such as suppliers, consumers, employees, host communities, and the environment. This relationship indicates the degree of organizational sustainability orientation. The 10 elements in the tourism marketing mix include:

A. Product

Product decisions involve decisions such as the design and delivery of holiday packages, menus, and all of the food and drinks served in restaurants. A product is "anything that can be offered to a market to satisfy a want or need" [8, p. 376]. In tourism, a destination may be a product, consisting of private and public goods, or it may be an "industry" element, such as an attraction, accommodation service, or tour operator.

B. Price

The relative price element is more important because it directly determines how many units of the product or service will be sold. Pricing is very important for tourism and hospitality businesses because tourism and hospitality products involve relatively high amounts of funds for products/services that cannot be tested before being purchased and consumed. Therefore, regardless of the cultural

characteristics of the customer, pricing decisions always have important implications for the tourism and hospitality business. Price is the money charged for consumption of a product and can affect demand.

C.   Place

While the place element for tangible products refers to logistics, distribution channels, store layout, and others. In services, the place element can refer to anything that may be related to making the product/service available for purchase, use, or consumption by the customer. Therefore, although decisions relating to internet web pages of tourism and hospitality businesses may be considered under the promotional element (marketing communications), they may also relate to venue strategy. Place, formally a marketing channel, is a range of independent organizations involved in the process of making a product or service available for use or consumption [8, p. 468]. In the context of tourism, these organizations add value along the value chain from origin to destination and include companies and organizations that make up the "industrial" elements of the tourism system, such as destination marketing organizations, retail travel agencies, tour wholesalers, transport providers, accommodation and attraction providers. Encouraging alternative modes of transportation to access and/or move within a destination can reduce the overall ecological footprint of tourists. Lower-impact forms of transportation, such as walking, barging, sailing, cycling, and local buses/trains, may also help support local communities and their economies. Insights on tourist reactions to low-impact transport to resort destinations, for example, are provided by [9].

D.   Promotion

Promotion is a means used by companies to inform, persuade, and remind consumers directly or indirectly about the products and brands they sell [8, p. 536]. Marketing communications also represent the voice of the brand and enable it to build relationships with customers. Belz & Peattie [10] suggest a dual focus for sustainable marketing communications: "to communicate with consumers about the sustainability solutions the company provides through its products, and to communicate with consumers and other stakeholders about the company as a whole".

E.   Process

The process describes how services are created, procedures, mechanisms, and the actual flow of activities by which services are

delivered through service delivery and operating systems [11, p. 27]. In the context of tourism, processes may describe activities such as the following: shifting from paper-based booking and account management systems to digital, production of alternative forms of energy, such as solar or wind, management of food and beverage supply chains, and labour, use of low-carbon transport modes , such as hybrid or electric motorized vehicles, to transfer visitors to, within and from a point of interest; and have effective use minimization and recycling systems in place, especially in locations that are hazardous to the environment, such as islands, national parks and protected areas, sensor-activated accommodation and public area lighting systems can force energy reduction processes, while signs to encourage consumers reduce their environmental footprint by, for example, reusing bathroom linens or minimizing water use adopting social marketing approaches that encourage behavioral change in the direction of positive social benefits.

F. Participants

All human actors who play a role in service delivery and thus influence the perception of buyers: namely company employees, customers, and other customers in the service environment [11, p. 26]. This participant further highlighted the role of human resource management and the notion of the customer mix as a key ingredient in service offerings. The concept of customer mix, is important for managing service performance outcomes for different consumers with different needs and wants that are simultaneously present in the service delivery environment. Booms & Bitner's [12] view of the customer as a tourism service producer highlights the need for tourism consumers, as well as employees, to be carefully selected, educated and managed. Marketing has traditionally performed this customer management role through targeting appropriate consumer segments and communicating organizational expectations through various marketing communication techniques.

G. Physical Evidence

It consists of "the environment in which services are delivered and in which the company and customers interact, as well as any tangible components that facilitate performance or communication. services" [11, p. 27]. The important role of this element on employees and consumers is highlighted in the servicescape concept. Servicescapes serve several functions, including providing convenience for employees and customers to move within, delivering and consuming service performance efficiently, respectively, and importantly for communicating with

customers. In terms of sustainability, this communication may involve the organization's sustainability values, policies and procedures and what is expected of the customer, particularly as a co-producer of the service experience.

H. Packaging

Describes a combination of related and complementary hospitality and travel services into a single price offering [6]. Combining travel and tourism services, such as transportation, accommodation, dining and tours, into a package allows tourism marketers to offer consumers price and convenience benefits, and, importantly, differentiate market offerings from competitors, and manage demand. and capacity use. Through packaging, an organization can collaborate with like-minded sustainability-oriented parties, enhance credibility and image, and create triple bottom line benefits.

I. Programming

Involves developing specific activities, events, or programs to increase customer spend or provide additional appeal to other hospitality/travel packages or services [6]. Special events not only provide an opportunity to increase tourism attractiveness but can also bring sustainability challenges, such as waste management and annoyance to local communities, if the tourism burden created exceeds the existing carrying capacity. McCool & Lime [13] provide an in-depth discussion of the carrying capacity of the concept. Programming, often associated with packaging, can serve to flatten the tourism demand curve, helping to overcome the uncertainty of resource requirements caused by the seasons, providing more certainty to suppliers, including employees.

J. Partnership

Refers to cooperative promotion and other cooperative marketing efforts by hospitality and travel organizations [6]. Partnerships are critical not only to the success of packaging and programming efforts but also to achieving a system-wide approach to dealing with tourism's unwanted ecological and socio-cultural footprint. Partnerships can be used to ensure that sustainability resonates along the entire tourism value chain.

Conclusion

The marketing mix strategy is one of the most effective strategies because it uses the approaches of customer solution,

customer cost, communication, and convenience. Thus, the marketing mix strategy is a powerful way to be applied to revive the tourism sector during the COVID-19 pandemic.

References

[1] E. Ciriković, "Marketing Mix in Tourism," *Acad. J. Interdiscip. Stud.*, vol. 3, no. 2, pp. 111–116, 2014, doi: 10.5901/ajis.2014.v3n2p111.

[2] United Nation World Tourism Organization, "Sustainable Development," *UNWTO*, 2022. https://www.unwto.org/sustainable-development (accessed Jun. 22, 2022).

[3] KEMENPAREKRAF, "Tren Pariwisata Indonesia di Tengah Pandemi," *Kementerian Pariwisata dan Ekonomi Kreatif*, 2022. https://kemenparekraf.go.id/ragam-pariwisata/Tren-Pariwisata-Indonesia-di-Tengah-Pandemi (accessed Aug. 13, 2022).

[4] H. Suherly, F. Affif, and A. D. Guterres, "Marketing Performance As The Impact of Marketing Mix Strategy (7P) With Determination of Market Attraction and Company's Resources Survey on Performers of Tourism Industry in Timor Leste," *Int. J. Econ. Commer. Manag.*, vol. 4, no. 9, pp. 569–587, 2016.

[5] E. Koc and A. Y. Ayyildiz, "Culture's influence on the design and delivery of the marketing mix elements in tourism and hospitality," *Sustainability*, vol. 13, no. 21, pp. 1–18, 2021, doi: 10.3390/su132111630.

[6] A. M. Morrison, *Hospitality and Travel Marketing*, 4th ed. Albany: Delmar Cengage Learning, 2009.

[7] M. Holienčinová and T. Holota, "Marketing management as a strategic part of sustainable development in the conditions of rural tourism in Slovakia," *Tur. i Rozw. Reg.*, no. 9, pp. 13–22, 2018, doi: 10.22630/tirr.2018.9.2.

[8] P. Kotler and K. L. Keller, *Marketing Management*, 12th ed. New Jersey: Pearson Prentice Hall, 2006.

[9] J. Reilly, P. Williams, and W. Haider, "Moving towards more eco-efficient tourist transportation to a resort destination: The case of Whistler, British Columbia," *Res. Transp. Econ.*, vol. 26, no. 1, pp. 66–73, 2010, doi: 10.1016/j.retrec.2009.10.009.

[10] F.-M. Belz and K. Peattie, *Sustainability Marketing: A Global Perspective*, 2nd ed. Wiley, 2012.

[11] V. A. Zeithaml, M. J. Bitner, and D. D. Gremler, *Services marketing, integrating customer focus across the firm*. New York: McGraw-Hill, 2006.

[12]   B. H. Booms and M. J. Bitner, "New management tools for the successful tourism manager," *Ann. Tour. Res.*, vol. 7, no. 3, pp. 337–352, 1980, doi: 10.1016/0160-7383(80)90027-4.

[13]   S. F. Mc Cool and D. W. Lime, "Tourism carrying capacity: Tempting fantasy or useful reality?," *J. Sustain. Tour.*, vol. 9, no. 5, pp. 372–388, 2001, doi: 10.1080/09669580108667409.

Parental Learning Strategies in Developing Children's Creativity during School Holidays due to the Covid-19 with Jakarta Walking Tour Activities.

Zulfitria[1], Tyasti Aryandini[2], Zainal Arif[3],

Introduction

The spread of the corona virus has soared since it entered Indonesia. So that the number of Covid-19 patients also continues to increase by a large number. According to Sari and Maharani [1] in the national daily news.kompas.com that until September 18, 2020, the total number of positive cases of corona in Indonesia reached 236,519 people, starting from the discovery of the first patient in March 2020. This is what makes the Indonesian government continue to move to tackle the pandemic. Covid-19 is currently carrying out various efforts such as implementing social distancing, physical distancing, PSBB, lockdown, PPKM strict health protocols and various other efforts. These various government policies are certainly very influential in various sectors of life, especially in the education sector in Indonesia and also affect the pattern of family vacations during the school holidays.

Before the COVID-19 pandemic, children and parents were free to go on vacations out of town or abroad happily and did not require certain requirements, unless they already had tickets or passports. Meanwhile, during the COVID-19 pandemic, children and parents must think about the risks and impacts that will be faced due to the spread of the corona virus, travel and vacation rules have changed, accompanied by various requirements and health protocol that must be done, such as PCR results or antigen swab which must be negative and taken at least 1x24 hours before vacation departure. Therefore, parental learning strategies are needed in order to develop children's creativity during the school holidays in this covid 19 pandemic era. So that children's school holidays remain meaningful and also pay attention to the health protocol issued by the Ministry of Health of the Republic of Indonesia.

According to Musthofa [3] one of the activities that can develop children's creativity, in particular, is to develop creativity and

---

[1] Master of Educational Technology, University of Muhammadiyah Jakarta, zulfitria81@gmail.com

[2] Early Childhood Education Study Program, University of Muhammadiyah Jakarta Jakarta, tyasti.aryandini@gmail.com

[3] Sharia Banking Study Program, University of Muhammadiyah Jakarta, zarifpambon@gmail.com

knowledge of children's history, is to take a Walking Tour, both virtual and in person. During the pandemic, this Walking Tour activity is in demand by parents as a safe tour because there is no need to travel far and use strict health protocols, besides that the activities are carried out in the morning, so it is beneficial for health because they breathe open air, while sunbathing. and also done on foot. In addition, this activity is also considered to provide many benefits in enriching children's creativity in the field of Indonesian history, especially the history of the old city in DKI Jakarta.

This study will explain how the strategies taken by parents in developing children's creativity during the holiday period during the COVID-19 pandemic era through the Jakarta Walking Tour. Therefore, parental learning strategies are needed in order to develop children's creativity during the school holidays in this covid 19 pandemic era. So that children's school holidays remain meaningful and also pay attention to the health protocol issued by the Ministry of Health of the Republic of Indonesia.

Mussadad [4] explained that one of the activities that can develop children's creativity, in particular, is to develop creativity and knowledge of children's history, is to take a Walking Tour. During the pandemic, this Walking Tour activity is in demand by parents as a safe tour because there is no need to travel far and use strict health protocols, besides that the activities are carried out in the morning, so it is beneficial for health because they breathe open air, while sunbathing. and also done on foot. In addition, this activity is also considered to provide many benefits in enriching children's creativity in the field of Indonesian history, especially the history of the old city in DKI Jakarta.

This study will explain how the strategies taken by parents in developing children's creativity during the holiday period during the COVID-19 pandemic era through the Jakarta Walking Tour.

Methods

This study uses qualitative research methods, Umar Sidiq [2] states that qualitative research is an inquiry strategy that emphasizes the search for meaning, understanding, concepts, characteristics, symptoms, symbols and descriptions of a phenomenon, focused and multi-method, natural and holistic, prioritizing quality, using several methods, and presented in a narrative manner. In simple terms it can be said that the purpose of qualitative research is to find answers to a phenomenon or question through the application of scientific procedures systematically using a qualitative approach.

The data collection techniques carried out in this study used an open interview technique to the parents of the Kota Tua Walking Tour participants with a tour guide from Time Gap Indonesia, as well as documentation studies or data collection from documents, as well as using literature studies.

Findings And Discussions

From interviews conducted with 5 parents of Kota Tua Walking Tour participants with tour guides from Time Gap Indonesia, 4 of the parents said that at first it was difficult to invite their children in the age range of 7-18 years to join this Walking Tour activity. The weather it was hot, tired and they should walk in a long way. Their children initially did not want to be invited to participate in this activity for these reasons. However, after parents provide an explanation of the benefits of this Walking Tour, such as:

A. Can reduce pollution in Jakarta because in this case tours, tour guides or local / foreign tourists do not use vehicles, but tour guides and tourists walk from one tourist destination to another or can be called a Jakarta Walking Tour or traveling with exercising

B. Can while learning history in a fun way, not monotonous and boring like just listening to a history teacher's story at school. Children can get hands-on experience from the guide's source which is fun to convey and also see first-hand the historical sources.

C. You can go on a culinary tour, by eating special foods around the walking tour area of the old city of Jakarta such as cut ice, gado-gado, ice selendang mayang etc.

The children participating in the tour, who previously did not want to join, then became excited to participate in this Walking Tour activity, after their parents conveyed the reasons above regarding the benefits of the Walking Tour.

The Jakarta Old Town Walking Tour activity, which is held from 08.00-12.00 WIB together with Time Gap Indonesia, will be held in June 2022. This activity is centered in the Old City of Jakarta with parents registering in advance through the Time Gap Indonesia application.

Figure 1. The Tour Guide Gives an Explanation to the Participants Walking Tour Jakarta Old Town Walking Tour Jakarta Old

Figure 2. Participants of Parents and Children in the Walking Tour

The tour guide in this activity is an experienced tour guide, bringing a number of historical documentation, landscapes about the buildings and landmarks of the Old City of Jakarta which will be passed as long as the participants follow the Walking Tour. The itinerary for this Walking Tour is in front of the Bank Indonesia Museum, Kali Angke Dam, Kota Intan Bridge, Red Building and Fatahillah Square.

The tour guide introduced the history of each landmark of Jakarta's old city and the participants paid close attention, because in the middle of the trip and while resting for a while on the Kota Intan bridge, the tour guide held quiz activities and interesting games with prizes for the participants, children and parents. The tour guide asks questions about the history of the old city of Jakarta from the Walking Tour activities that are carried out. Participants who can answer will get time gap merchandise, booklets and a limited edition Jakarta Map mini map.

Similar to Stewart (2014) [5] The walking tour activity with prizes is in great demand by the children participating in this tour, this activity is one of the creative ways that can be done so that school-age children can enjoy history lessons, besides that it also increases children's creativity in the field of history, especially knowing history DKI Jakarta Province. The Walking Tour activity which is carried out in conjunction with the school holiday period has many benefits including increasing children's creativity in the field of history, with the hope that children can fill this school holiday activity to improve children's history skills, collect historical traces, ask questions, put forward arguments, and can retell historical events from real experiences gained through Walking Tour activities.

As Susanto (2014) mentioned [6] by turning learning into meaningful learning, students can learn more effectively. As well as this walking tour benefits from students; 1. Delivering an Experience Not Found In Class Not everything about the learning process can be presented in a class. This is an important role of the activity because this activity can solve problems by meeting directly with the object of research; 2. Providing Sources of Information Directly; Reading books alone will not be enough to understand a problem. Students will definitely feel bored and cannot absorb the explanations in the book. With this activity students can go directly to the field to see learning objects and learning will be easy to understand. Students will get factual information, because they meet directly with learning resources; 3. Have an Interesting Experience, This kind of learning process will provide a different experience for students. In addition to gaining knowledge, students will also get new experiences that can be a provision for learning to the next level; 4. Increase Interest in Learning. By making visits to a certain object location that has learning value, it can open students' insight which can be found directly. With that interest in learning will increase because students get a different impression of learning; 5. Increase Environmental Awareness. If you carry out the learning process outside the classroom, you will be in direct contact with the natural surroundings. Students will make observations about objects in the environment in order to get to know the characteristics and other things related to the object of research; 6. Cultivate Interest in Each Field.With the study tour, students will get to know more about the world. Students will be more familiar with the fields of work and the routines of the wider community. It will grow and sharpen the desired ideals. New people around the environment will open new horizons to increase their knowledge.

Indonesia has many tourist attractions that have learning values that can be recommended. You can use these conditions to get

the benefits as mentioned above. A study tour is not only a trip, but a journey to learn new things to increase insight and knowledge. The link below can be a reference for you to choose a suitable destination for a study tour.

Figure 3. The guide gives historical location questions to the walking tour participants

The conclusions from the results of the research on Parental Learning Strategies in Developing Children's Creativity in Filling School Holidays During the Covid-19 Period Through Jakarta Walking Tour Activities are: 1) The Old Town Walking Tour activity is one of the alternative activities that can be done in filling school holidays during the covid -19 pandemic.; 2) It takes several approaches and strategies for parental learning to school-age children so that children can develop their creativity while filling school holidays during the covid-19 pandemic, including:. Discussion with children about the various benefits of Walking Tour activities', Hands-on experience in historical places, Collaborate with children in answering various questions and quizzes from tour guides, Visiting tourist sites that have traditional culinary delights that make children not get bored, hungry or thirsty; 3) This Old Town Walking Tour activity based on research results was found to increase children's creativity in the field of history including: .Improve children's creativity in studying the history of the old city of Jakarta, improve children's skills in collecting historical traces. Improve children's ability to ask and argue and Improve retelling skills from direct experience gained when visiting historical places or locations.

References

[1]   S. H. Puspa, dan T. Maharani, 2020 September 18, Update Bertambah 3891 Kini Ada 236519 Kasus Covid 19 di Indonesia,

Kompas.com,   Retrieved,   September   1   2022.
https://nasional.kompas.com/read/2020/09/18/15161651/
update-bertambah-3891-kini-ada-236519-kasus-covid-19-di-
indonesia

[2]   U. Sidiq, dkk *Metode Penelitian Kualitatif di Bidang Pendidikan*,
Jakarta : CV Nata Karya, 2019.

[3]   Badan Pusat Statistik, *Propinsi DKI Jakarta dalam Angka.*
Jakarta : Badan Pusat Statistik ProvinsiDKI Jakarta, 2020

[4]   M. B. Musthofa, The Strategy of Development Jakarta Walking
Tou, *Journal of Indonesian Tourism and Policy Studies Vol. 5 No.
1,*2020

[5]   A. A. Musaddad, Peningkatan Kreativitas dari Hasil Belajar
Sejarah di Prodi FKIP Sejarah Universitas Sebelas Maret
Surakarta. *Jurnal Pendidikan dan Kebudayaan*, *Vol 17* (1) 2011.

[6]   Goetz, Stewart. *A Philosophical Walking Tour with CS Lewis.
Bloomsbury, Bloombsburry Academic*, 2014

[7]   A. Susanto, *Teori Belajar dan Pembelajaran.* Jakarta : Kencana,
2014.

The year 2022 is the year we all bounce back from a pandemic. We've seen restrictions lifted all around the world and Indonesia so we are slowly back to life before the pandemic. A lot of events are happening globally such as natural disasters, wars that continue between Ukraine and Russia, G-20 meetings, and World Cup 2022. As I am writing this in December, it is only fitting to reflect on what we have accomplished since January 2022. As a nation, our president announced that he will stop our exports of raw nickel to the EU, and this is a bold move. As an academician, we have been working hard to do our research and get published, let's celebrate regardless of our number of publications. As a person, we have managed to keep our interpersonal and intrapersonal relationships in check, so we must be grateful. As an entity, our workplace has also achieved numerous accomplishments that we are proud of.

To face 2023, we do not need to be fully equipped with millions of savings, although that can be an advantage. As such knowledge is given to us, to help us, we are human and need to construct our spirituality and humanity so that we won't be lost in the uncertainty. We stand by our principle to face a fast-changing and uncertain world. We will be far more ready to accept anything given by God by instilling what we had all along, our belief and our ability to be kind.