



Cultivating Tech-Savvy Communities: Revitalizing Digital Literacy in Palembang City

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ABSTRACT

This digital literacy is motivated by the COVID-19 Pandemic, people must adapt to new cultures such as work, school, and economic activities through online media. Advances in digital-based information technology cannot be stopped anymore and have become part of today's society's need., For this reason, it is necessary to increase public knowledge in the field of digital literacy. This study aims to determine the implementation of digital literacy programs in the community in Palembang City, among and students. This study uses a qualitative method, using the four pillars of digital literacy, digital skills, digital culture, digital ethics, and digital safety. The theory used in this study is the implementation theory of Grindle, in which determined by the content of the policy and the context of its implementation. The basic idea of this theory is that after the policy is transformed, its implementation takes place. Data analysis in this study used interactive model analysis of qualitative data from Miles and Saldana consisting of Data Condensation, Data Display, and Conclusion drawing or verifications. Based on this research, the four pillars of digital literacy are very important indicators in digital literacy programs. Digital skills are the most basic pillars of interest for the public to learn as basic knowledge of digital literacy. Then followed by digital ethics as further knowledge that needs to be studied so that people know ethics when using digital media. Based on this research, it can be concluded that the implementation of digital literacy will be successful if it is also supported by regulations, rules, and policies for equal distribution of internet networks in all regions of Indonesia, including in the city of Palembang. The government and relevant stakeholders should continuously improve the facilities and infrastructure related to digital literacy, such as expanding stable internet networks and boosting the economy through the development of various online businesses. The shared programs between the government and other communities in educating the masses need to be implied regularly, so that the people, especially in Palembang have an increase of digital literacy as a whole.

INTRODUCTION

The pandemic period of COVID-19 some time ago has provided valuable lessons to the world community about the importance of the advancement of information technology (Barrutia & Echebarria, 2021). Digitalization in various sectors of life is knowledge that will continue to grow with the needs of human life (Adha, 2020; Adikara et al., 2021). This is no exception for the Indonesian people. In the midst of a COVID-19 pandemic, society must change the lifestyle, education, employment, and economic activities, which are usually done face-to-face or directly. This raises a variety of problems in societies that are not ready for the latest technologies that are all digital to apply in everyday life (Ghulamudin, 2021; Gök Uğur & Hendekci, 2022; Khalifa et al., 2021).

This unprepared society is characterized by various factors such as the lack of knowledge of the public about using social media as a means of communication (Buchi et al., 2019; Djalante et al., 2020). For example, the results of the survey of the Association of Internet Users of Indonesia (APJII) stated that Internet users in Indonesia in 2021-2022 will have reached 77.2% of the total population of Indonesia (APJII, 2022). However, since the introduction of the Electronic Information and Transaction Act (ITE) in 2008, about 114 people had been prosecuted for violating the ITE Act. As of December 31, 2020, there were 1,858,554 content sites that have been blocked by the Ministry of Communications, and the majority of those sites were pornographic sites (Agustini, 2019). Another consideration is the need for this study; the results of the 2020 Digital Civility Index (DCI) survey measure the level of digital intelligence of world internet users when communicating in the virtual world.

Indonesian netizens occupy the lowest rank in Southeast Asia, or at least are not polite in commenting on the virtual world (Eva, 2021).

Speaking on a regional scale, based on data from katadata.co.id, in 2021 South Sumatra is ranked 22nd out of 34 provinces for internet user penetration, with a percentage of 62.57%. Regarding conditions in Palembang itself, according to information from the Ministry of Communication and Information of Palembang City in 2021, the number of people using the internet in Palembang City reached around 1.1 million people with an internet penetration percentage of around 62.9 percent of the total population of Palembang City (Ahdiat, 2023).

Based on the 2022 Indonesian Digital Society Index (IMDI), the index in the city of Palembang is 43.33. The following is a graph of the Indonesian Digital Society Index (IMDI) in Palembang City:

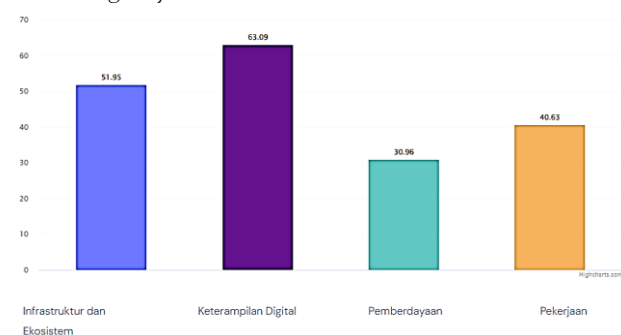


Figure 1: Graph of the Indonesian Digital Society Index in Palembang City in 2022

Source: IMDI 2022

Based on the picture above, the Digital Society Index in Palembang City still needs to be improved, if seen through the indicators of infrastructure and ecosystem 51.95, digital skills 63.09, empowerment 30.96 and employment 40.63.

Therefore, the government of the Republic of Indonesia, through the Ministry of Communications and Informatics, the Directorate-General of Information Technology Applications, and the Information Technology Empowerment Directorate, designed the Digital Literacy Program included in the Roadmap of Digital Literature 2021-2024. The Roadmap sets out four (four) digital literacy frameworks for curriculum preparation, namely Digital Skills, Digital Culture, Digital Ethics, and Digital Safety (Luqman, 2024).

The program is in line with: 1) the Indonesian President's Guidelines in the 2019 Musrebangnas regarding the equal development of infrastructure, structural reforms to increase competitiveness, and the development of human resources; 2) the ASEAN 2020 ICT Master Plan, the 5th Strategic Focus on Human Resource Development; 3) the President of Indonesia's speech on August, 14, 2020, on the acceleration of digital transformation; 4) the Vision of the Presidency's Mission of the Republic of Indonesia: Indonesia Towards a Digital State 2035, by creating and developing the digital talent expertise of Indonesians.

Based on empirical questions, the results of Morris & Rohs, (2021), titled: Digitalization bolstering self-directed learning for information literate adults—A systematic review, found that changes in digitalization have transformed opportunities for independent learning in informal, non-formal, and formal education settings. However, key findings from this study indicate that the availability of digital technologies can have a dual effect: on the one hand, digital technologies facilitate access to information and encourage self-learning, while on the other hand, the increasing volume of information demand requires additional skills in information literacy to become an independent student who is competent in navigating information in a meaningful way. These two phenomena occurring simultaneously may partly explain the spread of the digital gap that has occurred in recent years. Similar problems also occur in Palembang City, including signal quality as well as the community's ability and access to take part in the Literacy webinar Digital individually/independently is still limited. To overcome this, so Digital Literacy webinars are often done by watching together.

Furthermore, at the national level, the full-minded research results of Purnama et al., (2021), also showed the need for an expansion of digital literacy and the role of parents in reducing the impact of online risks on the teaching and learning process. It is a first step for schools and parents to pay attention to the wise and safe use of technology. Estimates of structural equation models in this study show that digital literacy skills, the role of parents in mediation, and the ability to self-control influence online risks. However, the mediation role of parents failed to promote student self-control.

Rahmah (2015), entitled Digital Literacy Learning System for Indonesian Citizens, in 2015 also revealed that digital gaps in Indonesia require digital literacy education delivered through several knowledge transfer mechanisms. Special informal initiatives in digital literacy education focus on patterns of caring with parents as the lead, so education should be delivered to all parties involved in child and adolescent education. Indonesia is a religious country, so digital literacy education should follow the ethical code given by the beliefs of its citizens.

Hahn (2021), in her book Social Digitalization: Persistent Transformations Beyond Digital Technology, outlines a critical analysis of the impact of social digitization that goes beyond the assessment of the material digital technologies applied and the policies associated with their use. Digital transformations is being used to facilitate more informed decisions and policies that are better designed to address the consequences of reorganizing social activities. Digital transformations as a form of social processing outside of technology. Hence the importance of understanding the social conditions in which digital technologies are implemented and how their implementation is likely to change the trajectory of social processes. A key element of this approach is the need to consider the consequences of digitization from multiple social perspectives, particularly in terms of digital literacy.

Based on literature searches on the 2021 SCOPUS Index through the VosViewer app, 300 journals on digital literature were obtained. This shows that the topic of digital literature is new and interesting to study further. However, research literature that uses the digital literature framework as already created by Kominfo RI, which consists of Digital Skills, Digital Culture, Digital Ethics, and Digital safety, is still very rarely researched. The following is a picture of the results of research gap search through the Vosviewer application:

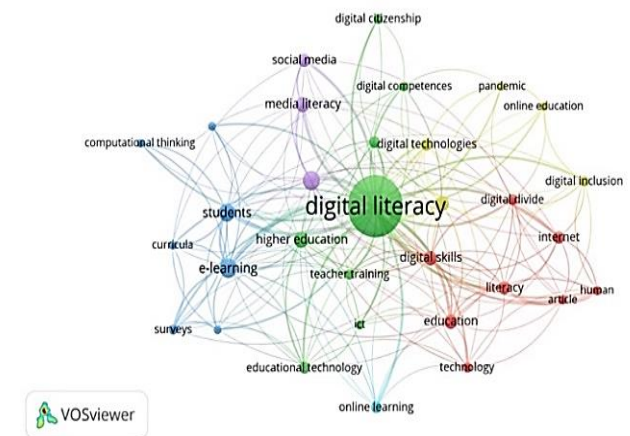


Figure 2. Literature search on the SCOPUS Index for 2021. Source: VOSviewer Analysis

From figure 2, we can see that there has been no research especially from Sriwijaya University which discusses the Implementation of the Digital Literacy Policy as an effort Building a Digital Society in Palembang City which is analyzed through content policy, implementation context and policy results. Apart from that, it will be analyzed also 4 (four) digital literacy frameworks for curriculum preparation, namely Digital Skills, Digital Safety, Digital Ethics, and Digital Culture so this be novelty (newness) in research.

Academically, a more accurate implementation model used in the Implementation of Digital Literacy in society in Palembang City is the Grindle Model. The advantage of the Grindle model for policy environment variables, is that the model focuses more on policymakers' policies. The first element of the environmental variable is the power, interest, and strategy of the actors, which explains why policy is heavily influenced by the political map of the policymakers. In this case, policymakers will seek to place

their interests on policies that involve their interests so that their interests can be accommodated in the policy.

Normative questions that show that there is no legal protection at the level of the City of Palembang in the implementation of the Digital Literacy program. In this case, the application of Digital Literacy is based only on the Law No. 11 of 2008 on Electronic Information and Transactions and the Regulation of the Governor of South Sumatra Province No. 6 of 2022 on the Regional Literacy Movement, whose implementation is still experiencing obstacles. Implementation also involves many policy actors, so it creates difficulties in the implementation stage of the policy, which is not only due to the number of political actors involved but also efforts to improve the cognitive capabilities of society itself. Socialization is also needed to eliminate the habit of placing sensitive personal information on social media, as is the appropriate draft Personal Data Protection Act to raise public awareness of their personal data. Based on the problems described above, there's needs for a research regarding the Implementation of Digital Literacy Policy as an effort Building to build Digital Society in Palembang City, with the hoped that at the end of the research, we can recommend a Digital Literacy Policy model as an effort to build an optimal Digital Society in Palembang City.

Based on introduction of this research, the main question on this research is :

1. How is the implementation of digital literacy policy as an effort to build a digital society in Palembang?
2. What are the supporting and inhibiting factors in the implementation of digital literacy policy in Palembang?
3. What is the optimal model for the implementation of digital literacy policy in Palembang?

METHOD

The goal of this qualitative descriptive study is to describe and analyze how Palembang City has implemented its digital literacy policy. Qualitative research is open, which means that the research questions up front are adaptable and subject to change based on the work processes that take place in the field. We can view Digital Literacy Policy as an Effort Building a Digital Society in Palembang City is seen through facts or events observed in the field are then compared in magnitude as reference materials perfect the research. As a result, the research's focus shifts to accommodate shifting research problems.

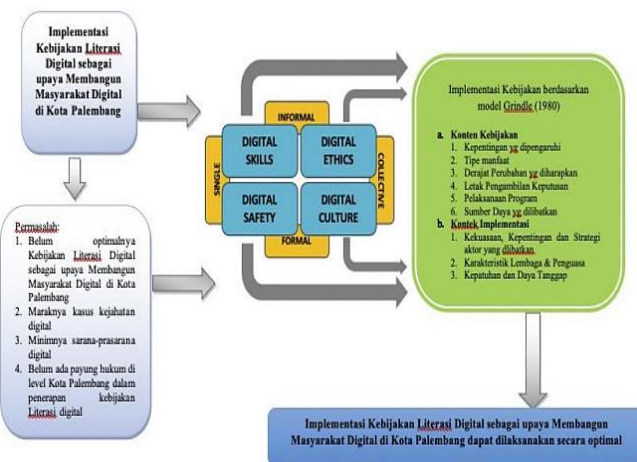


Figure 3. Theoretical Framework
Source: The Results of Researcher Analysis

This research was carried out in the city of Palembang with research informants consisting of: 1) Key informants: Project Manager Digital Literacy, Regional Leader Digital Literation Sumsel Region, Kominfo Kota Palembang, Runner of Digital Literature City of Palembang, LO Digital Literacy City of Palembang, and Supporting informant: Digital literacy source, Society Target Digital literature, students participating in digital literature. The consideration in choosing this informant is that they a sufficient experience and knowledge regarding the implementation of digital literacy programs as the implementor, and have seen and felt firsthand how effective or not the program it self as the subject of the implementation, both for themselves and society at large.

Data collection techniques in this study through: observation, which collected through direct observation by researchers of the Team Palembang City Digital Literacy Implementer, high school/equivalent students has taken part in digital literacy from the Indonesian Ministry of Communication and Information; interview, where the interview was not carried out with structured, but with increasingly focused questions problems so that the information collected is sufficiently in-depth with indicators contained in Grindley's Theory; questionnaires, which being distributed to respondents (the people of Palembang City, in this case students high school/equivalent), to find out the impact before and after the program being implemented; and documentation, which through documents from various notes, archives, books, digital literacy modules, regulations Implementation of Digital Literacy Policy that being mention above (Grindle, 2002) . This data collection process took place over a period of approximately 6 months in and off field. The analysis technique used in this research is qualitative data analysis technique. Namely the qualitative data analysis technique proposed by Huberman & Saldana (2014).Data analysis techniques The qualitative interactive model proposed can be seen in the following figure:

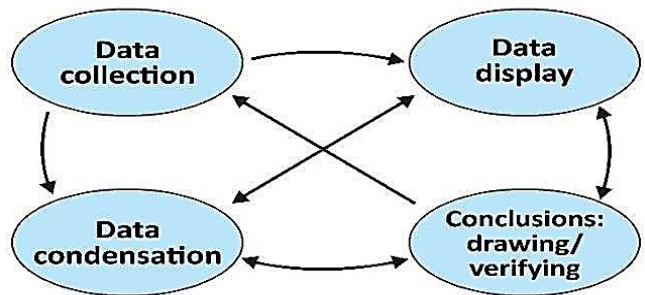


Figure 4. Data Analysis Techniques from Miles
Source: Miles, Huberman, Saldana (2014)

The steps taken during data collection, consist of summarizing direct contact data with peoples, events and situations at the research location of Digital Literacy Policy Implementation; 2) Data coding through symbol which are all built in an integrative system; 3) Analyzing during data collection by making objective notes, as well as classifying and editing answers or situation as they are fact in the field. Furthermore, the data collection stage is based on categorization in accordance with the research problem which is then developed for data sharpening through further data searches. The next stage of data presentation is an organization, the compilation of information that allows conclusions and actions; the next important analysis activity is drawing conclusions and verification.

RESULTS AND DISCUSSION

Generally speaking, Indonesia's digital literacy status in 2021 will be at a level of 3.49 on a scale of 1 to 5, according to measurements. This demonstrates that Indonesians have "moderate" levels of digital literacy. The four pillars of digital literacy—digital skills, digital safety, digital ethics, and digital culture—are the basis for this measurement. These four pillars are measured using 7 to 8 indicator questions, resulting in the following results:

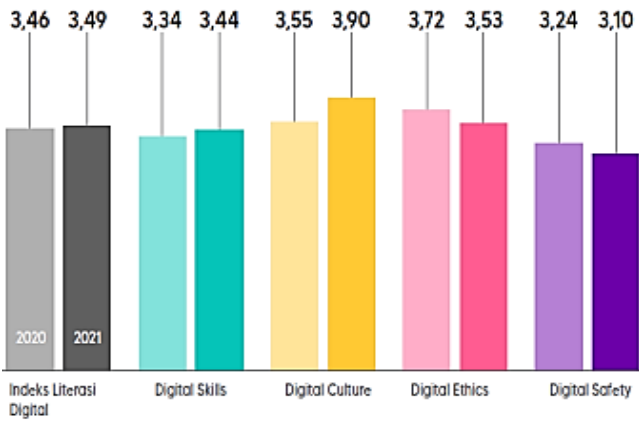


Figure 5. Digital Transformation Comparison Between 2020 and 2021

Source: *Indonesia's Digital Literacy Status on 2021*

The same 7 to 8 questions are also used to measure the 4 pillars of digital literacy at the provincial level, where the city of Palembang is included in the calculation in South Sumatra province, with the following results:

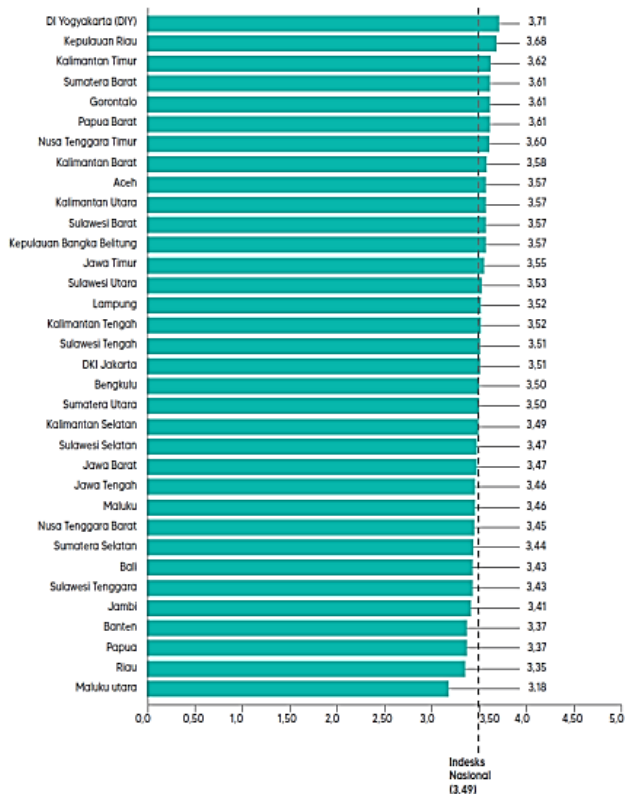


Figure 6. Digital Literacy Index in 34 Provinces

Source: *Indonesia's Digital Literacy Status on 2021*

The digital culture score increased the most, from 3.55 in 2020 to 3.90 in 2021, based on these four pillars. Including the original username or uploader when reposting, creating uploads with emotions in mind, and other internet user behaviour metrics. Readers from varied racial, religious, and political backgrounds enjoy various digital Indonesian art and culture contents.

The results of the research are presented with reference to three (three) research foci: first, the Implementation of the Digital Literacy Program as a society in the City of Palembang, which consists of the content of the policy, the context of implementation, and policy outcomes. Policy content variables are affected interests related to various interests that support and hinder policy implementation or cover the extent to which the interests of the target group are embedded in the policy content.

The program aims to encourage people to use the internet intelligently, positively, creatively, and productively in order to improve their cognitive ability to identify hoaxes and prevent exposure to the negative impact of internet use. This can be achieved by conducting digital literacy training activities through schools, which include teachers and students, as they are the main subject of this program. Concretely, the form of this training itself can be in the form of a webinars or a short courses which also open to the public.

Based on the results of interviews with the Executive Manager of Digital Literacy, it can be seen that the Digital Literacy Policy is a policy implemented to improve the knowledge of the digital capabilities of the population in the digital realm as well as the ability of the public to understand information in the Digital realm, entering the era of 4.0 and the era of disruption in which all aspects of life are affected by technology. Other results of interviews with digital literacy sources indicate that the implementation of this digital literature is good to be followed by students, especially in the time of the COVID-19 pandemic last year, when all societies were forced to learn technology so that all the activities that are usually carried out directly turned out to be now virtually possible. In order to cultivate a new culture in the digital world, you don't have to attend school directly, and work can be done virtually. Digital literacy, especially digital skills, is very necessary to grow the character or personality of the nation, especially the city of Palembang. With the presence of digital skills, society in Palembang can facilitate the work that initially feels complicated to become easy due to the existence of competence by using digital devices. Digital skills include: 1) basic knowledge of the digital landscape—the internet and the cyber world; 2) basic knowledge about information search engines and how to use and process data; 3) basic knowledge of conversation and social media applications; and 4) basic knowledge regarding digital wallet applications, the market place, and digital transactions.

The other thing that is revealed from the results of the interview related to the implementation of digital literacy is that Digital Literacy is a movement that cannot be done by one institution; everyone must be involved in order not to be left behind, including the government, society, and stakeholders. Digital Skill concerns individuals in learning to understand digital operating systems in everyday life. It is well known that governments tend to have an interest in making news in the media or the digital world, so it is necessary to have journalists who are unbiased and can convey the truth without being accompanied by fear.

Extent of Change: Envision (the level of change you want to) Every policy has a goal that it wants to achieve. The content of the policy that I want to explain at this point is that the extent of the change that a policy implementation wants to achieve must have a clear scale (May & Finch, 2016). Based on the results of interviews with the Leader informant of the digital literacy program, it can be seen that the success rate of the Digital Literacy Program on the Society in the City of Palembang can be viewed from the level of participation and enthusiasm, as well as the participant's understanding of the activities and the submitted material, and the enthusiasm of the participants for the use of digital literacy in learning activities and the dissemination of information. The target number of digital literacy participants in the city of Palembang in 2021 was 62,146, while the reach of participants was 87,916. It demonstrates the enthusiasm of the public in this regard, including students and students high enough to follow and add knowledge of digital literacy.

Site of Decision Making a policy plays a crucial role in the implementation of a policy, and this section mentions the location of decision-making based on the policy to be implemented. A decision is a choice formed on the basis of two or more alternatives (Blankshain, 2019). Decision-making on a policy plays a crucial role in the application of a policy, placing decision-making on the applications of the Digital Literacy Program in the Society in the City of Palembang. Based on the output of the interview, it can be concluded that the perpetrators of the Digital Literacy Program in the City of Palembang include the Government in this regard, Kominfo RI, which collaborates

with colleges, communities, non-governmental organizations, schools, professional associations, and Ormas & Media. The decision-making process for the initiation of Kominfo RI and Team Siber Creation and the need of the people for digital literature Decision-making is done alongside putting knowledge in place, such as through webinars or socialization.

The program implementor (Program Executive) is obliged to support the existence of competent and capable policy implementers for the success of a policy (Wu et al., 2015). In conducting a policy or event, it is mandatory to support the use of a competent and capable policymaker for the success of the policy. And this has been obligatory exposed or supposedly used well, whether a policy has already revealed its implementor using details (Howlett, 2015). The mechanism of application of the digital literacy event in the city of Palembang is implemented on four pillars of digital literacy consisting of digital skills, digital culture, digital ethics, and digital safety.

The researchers also tested data consisting of Digital Skills, Digital Culture, Digital Ethics, and Digital Safety. These indicators can affect digital literacy, of which some are processed by researchers with a data questionnaire from 94 sources consisting of students of the City of Palembang. The data is then processed using the SMARTPLS Application to confirm or reject the performance findings of the indicator, which used only as supporting data to deepen the analysis related to the research topic. The results of data processing using SMARTPLS can be seen in the following image:

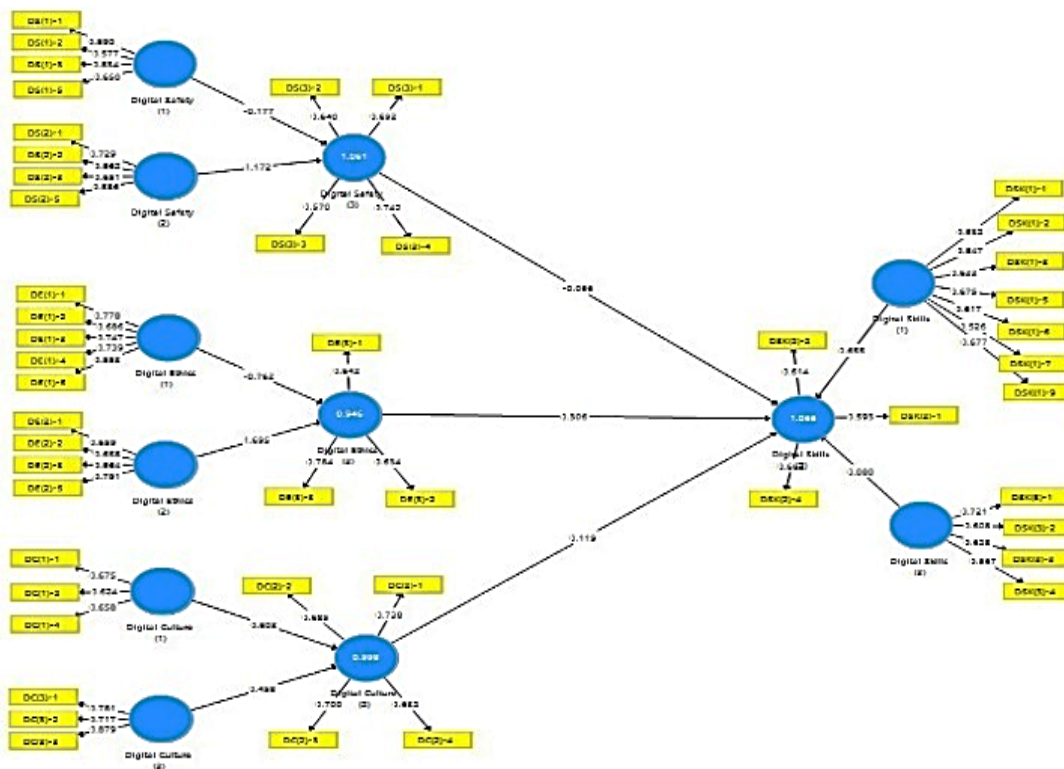


Figure 6. Indicators that affect digital literacy
Source: Introduction to SMARTPLS (2022)

Based on the data above, the researchers obtained a percentage response from Kota Palembang students to digital literacy with indicators of digital safety (1,061, Digital Ethics (0,946), digital culture (0,998), and Digital Skills (1,066). Of the four pillars of digital literacy, Digital Skills became the highest indicator in 94 sources, drawing the conclusion that digital skills

are able to effectively and evaluate digital literacy ability in the use of social media platforms. The changes in digital information that exist can affect students of the City of Palembang's digital literacies.

On the resource indicator involved in this digital literacy program, the Ministry of Communications and Informatics has

appointed a Program Manager; then there are Regional Leaders in each region or province; and in the district or city, there are Runners, Liaison Officers, and Administrative Officers. At the time of the digital literacy event in the form of a webinar, there was one national source person who came from various institutions and had a Certificate of Digital Literacy from Kominfo RI, one local source person or region of each province, city, or district, one Key Opinion Leader (KOL), and one moderator with a maximum duration of 3 hours.

In the context of the implementation of the policies and strategies of the actors involved, Kominfo RI is the State Institution appointed by the government to implement this digital literacy program throughout the territory of Indonesia, as well as in South Sumatra, in particular in the City of Palembang. Kominfo has appointed executive teams in provinces and cities to organize this digital literacy program. The team that has been formed in each province and district coordinates with the local government, in this case the Governor, mayor, Ministry of communications, department of education, and religious department of each district or city, including the city of Palembang. When it comes to monitoring the implementation of the digital literacy program for the region of Sumatra, there is an independent supervisory team that comes from the Independent Institution as well.

In the context of compliance with the implementation of the digital literacy program, the implementers work according to the Working Framework (KAK) that has been determined by Cominfo RI and adjusted to the conditions of each province. For the City of Palembang itself, based on the KAK digital literature, in 2021 it organized 103 webinars over seven months of work. All webinars have performed well, although there are some important records on the implementation of the digital literacy webinar. For example, it is necessary to repair the Internet network in suburban areas of the city of Palembang that are still controlled by Internet signals. It is also necessary to train teachers in schools to use applications on the Internet as learning media. Another important thing is the addition of facilities such as computer devices and WIFI in schools that are not adequate.



Figure 7. Dokumentation of Digital Literacy Activities at Palembang

Source: *Research Dokumentations*, 2021

Overall, the implementation of digital literature in the City of Palembang and these things related to the research indicators are carried out in accordance with the provisions that have been established by the Kominfo RI. However, some field findings that can be submitted to this study are that for the implementation of digital literacy in schools, it is still necessary to re-examine its implementation format. Some schools, like madrasahs in the training room, do not allow their students to use handphones

(HP) in the school. Students must use their own HP to participate in webinars. So the school should provide the means to watch this webinar on digital literature. Another note is the preparation of infrastructure such as computer devices in schools, Internet networks, and resources, in this case teachers who still need to improve their knowledge of digital media.

CONCLUSION

By considering the analysis of the results and discussion of the data found, the factors of access to information and participation of community-based people can be supporting factors and inhibiting factors in the process of village economic empowerment in Pidie Regency. The supporting factor for access to information is the use of information and communication technology, although in a simple form, making it easier to disseminate information. Freedom of information is created so village communities can freely get information about development. Meanwhile, the inhibiting factor is the unavailability of more specific and modern information and communication technology for the continued economic empowerment of village communities; information from the disabled community to the village government is very lacking, and the information media available in the village is still lacking. The supporting factor for participation is the opportunity to participate that the village government provides to the community, while the inhibiting factor is that the ability of the disabled community to carry out economic empowerment activities is still lacking; the desire to participate from the community is shallow; and the lack of awareness of village communities regarding economic empowerment activities for village communities in Pidie Regency.

Based on this research, it can be concluded that the implementation of the digital literature program in the city of Palembang is running according to the conditions that exist in the town. The achievement targets of the digital literacy participants were met, even exceeding the targets set. Based on the four pillars of digital literature, the digital skill pillar is a pillar that is in great demand for the important DNA to be known to society as the basic knowledge of digital Literature. Most informants mention that this digital literacy program is important to implement in order to increase the knowledge and expertise of the public in the field of communication and information technologies. As we know today, people interact daily through digital media, such as social media. However, there is another need to filter the use of these social media so as not to be subjected to the penalty of violation of the ITE Law. Therefore, the pillars of digital ethics and digital safety must be known by society.

However, other things in the public policy dimension of digital literacy will succeed if supported by regulations, rules, local government policies, the demolition of internet networks across all regions of Indonesia, including the city of Palembang, and adequate computer equipment for schools in the suburbs. This requires government preparation in the preparation of infrastructure related to this digital literacy program, such as internet networks that are even across the territory, especially for especially for remote and underdeveloped areas in Palembang City, and those with low digital literacy. Other than that, the government needs to build free WIFI facilities in places of public service for the community, such as schools. Thus, the public can easily access the internet anywhere and can follow this digital literacy program as expected by the government. The program is

expected to continue not only until 2024, but there is an advanced evaluation so that the program can still be continued with the improvement of the knowledge of teachers in schools in order to support the use of digital learning media in line with the latest technological progress.

In the future, this research can also be improved or studied more deeply through other research, considering the progress of digital technology in all sectors life continues to develop. For this reason, researchers recommend research continuation of this study with the theme "Digital Literacy towards a Smart City". This theme was chosen because people already follow digital literacy or If the knowledge about digital literacy has increased, it become paramout to introduced the used of various applications which will be used in all sector of daily life as the next step of digital literacy development, especially the one that related to with public services. This is what will be developed in Smart City.

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