

Digital Literacy in Post-Pandemic Project Based Learning at Sekolah Kembang Jakarta

Gracia Adiati

University of Indonesia, Depok, Indonesia
*gracia.adiati@gmail.com

Artikel

Submitted: 25-06-2021
Reviewed: 16-12-2021
Accepted: 15-01-2023
Published: 20-06-2023

DOI:

10.32509/wacana.v22i1.1503



This work is licensed under a
Creative Commons Attribution-
NonCommercial-ShareAlike 4.0.

Volume : 22
No. : 1
Bulan : June
Tahun : 2023
Halaman : 1-10

Abstract

Digital literacy is an essential skill for students in learning in the post-pandemic digital era. This study aims to explore digital literacy for Sekolah Kembang students through group communication between teachers and students. The focus of the research is digital literacy in project based learning for elementary school students in grades 4, 5 and 6, and junior high school grades 7 and 8. In this study, the authors use qualitative approach with descriptive methods and data collection techniques through interviews. The results of the study show that digital literacy has become an integrated part of project based learning at the Sekolah Kembang. There are three communication patterns implemented in providing directions for finding and sorting information from the internet, which are large group communication, small group communication, and interpersonal communication. Identified group communication functions include persuasion, decision making, and problem solving. This research provides a better understanding of how digital literacy education can be implemented through communication between teachers and students at the Sekolah Kembang.

Keywords: digital literacy, group communication, project based learning

Abstrak

Literasi digital menjadi kemampuan esensial bagi para siswa dalam pembelajaran di era digital pasca pandemi. Penelitian ini bertujuan untuk mengeksplorasi literasi digital bagi siswa Sekolah Kembang melalui komunikasi kelompok antara guru dan siswa, dan antar siswa. Fokus penelitian adalah literasi digital pembelajaran *project based learning* bagi siswa SD kelas 4, 5, dan 6, dan SMP kelas 7 dan 8. Dalam penelitian ini, penulis menggunakan pendekatan kualitatif dengan metode deskriptif dan teknik pengambilan data melalui wawancara. Hasil penelitian menunjukkan bahwa literasi digital telah menjadi bagian terintegrasi dari *project based learning* di Sekolah Kembang. Terdapat tiga pola komunikasi yang dilaksanakan dalam memberikan arahan untuk mencari dan memilah informasi dari internet, yaitu komunikasi kelompok besar, komunikasi kelompok kecil, dan komunikasi interpersonal. Fungsi komunikasi kelompok yang teridentifikasi meliputi persuasi, pengambilan keputusan, dan pemecahan masalah. Penelitian ini memberikan pemahaman yang lebih baik tentang bagaimana pendidikan literasi digital dapat diimplementasikan melalui komunikasi antar guru dan siswa di Sekolah Kembang.

Kata Kunci: literasi digital, komunikasi kelompok, *project based learning*

INTRODUCTION

The Covid-19 pandemic that occurred in 2020 has changed many daily activities, including learning at school. After establishing a large-scale social restrictions (PSBB), the government, which is the Minister of Education and Culture of the Republic of Indonesia issued a policy for online learning (Savitri et al., 2021). Online learning or online school conditions teachers and students not to meet face to face. Technology has important role in online learning through its elements, such as learning

that designed on an internet or web-based basis, using the internet to increase interaction and learning atmosphere, and using information and communication technology (Singh & Thurman, 2019).

The online learning process during the pandemic produced a number of ideas that could be taken to observe the current implementation of learning, two years after the pandemic. At the global level, various coalitions and networks have formed to promote online forms of learning as a short-term solution to the pandemic and a long-term ambition for the education system as a whole (Williamson et al., 2020). In addition to online learning methods, technology adoption is still maintained in learning which has now returned to face-to-face methods, or learning at school, which is by using Information and Communication Technology (ICT) as a source and tool for obtaining information (Sarnoto, 2022). This method has also been adopted and applied by several schools in Indonesia, especially in big cities where the implementation of online learning tends to be smoother than other regions, because students are already familiar with technology (Syarifuddin et al., 2021). To carry out learning methods using digital media, of course, qualified digital skills are needed, or what is called digital literacy.

In the context of post-pandemic school learning, digital literacy is an important skill for students to continue to seek information and learn. Literacy is basically a 21st century ability that everyone must have (Nudiati & Sudiapermana, 2020). Digital literacy is one of the six basic literacy (Nudiati & Sudiapermana, 2020). Even in today's very rapid development of information, the scope of literacy is increasingly developing into scientific literacy, economic literacy, technological literacy, visual literacy, information literacy, and multicultural literacy (Kharizmi, 2015). Apart from being an asset in following post-pandemic lessons, digital literacy is increasingly needed by students in today's digital era. Digital literacy is a skill and knowledge to use digital media, communication tools, or networks to find information, and then evaluate, use, and utilize it wisely (Sutrisna, 2020). Literacy also has an important role in critical thinking skills (Mardiyah, 2018).

Learning using digital media can be implemented at any level of education and at any age. Adolescents and pre-adolescents, that are junior and senior high school, have their own characteristics, those who are currently 10-14 years old are included in the digital native generation, or the generation that grew up with digital technology, so they are familiar with today's digital technology (Junaidi et al., 2022). Research conducted by the Ministry of Communication and Informatics (Kemkominfo) states that 98 percent of Indonesian children and youth know the internet, and 79.5% of them use it. The internet can be a good source of information, learning media, and entertainment for children and adolescents (Kementerian Komunikasi dan Informatika Republik Indonesia, 2014). From this explanation it can be said that adolescent and pre-adolescent students have mastered the technology used for learning in schools such as computers, smartphones, other devices, and know how to surf on the internet.

Even though they are proficient in operating digital media, the immature age of adolescents and pre-adolescents can pose a vulnerability to risk. Staksurd and Livingstone in Luthfia (Luthfia, 2015) describe this risk as a heterogeneous experience that can harm internet users either intentionally or unintentionally. One of the risks is encountering fake news or hoaxes. Valtonen stated that fake news or hoaxes often imitate true news to make it look more credible, such as being supported by manipulated photos and videos so that they are easier to believe (Valtonen et al., 2019). Thus, digital literacy in children and adolescent students is important to be applied together with the implementation of learning using digital media, which is currently being adopted as an adjustment to post-pandemic learning conditions.

The government through the Ministry of Communication and Informatics (Kominfo), in collaboration with the Digital Literacy Activist Network (Japelidi), and Siberkreasi – a National Movement of Digital Literacy formulated a Digital Literacy Module for the public, which maps out digital literacy competencies into four areas, they are digital skills, digital culture, digital ethics, and digital safety (Kurnia et al., 2021). Students' skills in obtaining information for learning at school are what is called digital skills. The module recommends that the enrichment of digital skills at the

elementary and junior high school levels can be added to digital media introduction (Kurnia et al., 2021). In addition to the theoretical presentation in class, the process of teaching digital literacy with hands-on practice through involving students in project-based work has positive effect. An elementary school in Hong Kong engage students to plan, develop, and present their digital fairy tales, which results enables them to access information anytime and anywhere, check assumptions, represent ideas and solutions to problems, and receive feedback from teachers and fellow students. This process affects students' research abilities, design thinking and digital literacy skills (Churchill, 2020). One of the schools in Indonesia that applies similar teaching, which is through project based learning is Sekolah Kembang in Jakarta. Project-based learning and literacy culture are learning approaches used by Sekolah Kembang in teaching students (Sekolah Kembang, n.d.).

Sekolah Kembang, located in South Jakarta has the principle that students are free to choose what they want to learn, and carry it out according to their own way in a responsible manner. This principle underlies the existence of project-based learning programs. Beside that, a literacy culture in the Sekolah Kembang is formed from the desire of knowledge, thinking, and the habit of seeking information through routines that carried out in class and other activities at school (Sekolah Kembang, n.d.). Project-based learning combines students' understanding of a concept associated with everyday life through discussion of problems found individually or in groups. In general, project-based learning begins with developing interest, research, and drawing conclusions about these activities (Wibowo et al., 2022). Previous research was conducted by Faridah (Faridah et al., 2022) with the experimental method in grade 5 elementary school shows that students who take part in project based learning have better digital literacy and numeracy literacy skills than students who take conventional learning methods. This is because project-based learning can affect students' ability to communicate the results of their learning experiences, more active in providing ideas, have good creativity and critical thinking, and able to filter information obtained from the internet (Faridah et al., 2022). This ability is considered important, because digital media brings together internet users from various age groups and cultures without boundaries (Kurnia et al., 2021). These skills are also important for teenage and pre-adolescent students to have so they can minimize the risk of exposure to digital media as mentioned earlier.

Based on the initial data obtained by researchers, Sekolah Kembang has begun to intensively implement project-based learning for kindergarten, elementary and junior high school students after returning to face-to-face meetings at schools starting in July 2022, as a continuation of technology adoption during online learning. Project-based learning activities use a lot of technology and digital media such as internet-based work tools, and search engines in the learning process, so that digital literacy is needed to support students' digital skills. It was found that pre-adolescent students or the equivalent of grades 4 – 6 in elementary and early adolescents, grades 7 – 8 junior high school, were more adept at operating devices and using the internet, compared to younger students. This is consistent with the nature of digital natives the generation that has grown up with digital technology, so they are familiar with today's digital technology (Junaidi et al., 2022). Even so, students still need direction in maximizing technology to support ongoing project-based learning activities, while avoiding misinformation as a possible risk. The teacher as a learning facilitator in schools has a big role in giving directions to students in this regard.

In providing teaching using digital devices to obtain information on project based learning activities, teachers actively convey directions to students. Teachers are required to play an active role in increasing the effectiveness of learning activities (Arviansyah & Shagena, 2022). At Sekolah Kembang, students also play an active role in discussing and providing information to students and teachers in a project-based learning process. This is where the process of group communication in classroom learning occurs. Group communication takes place when three or more people gather (Tutiasri, 2016). In this study, class members consisting of students and teachers at Sekolah Kembang can be called as group. School as institutions accommodate the existence of a secondary group, which is a group that can carry out self-actualization (Tutiasri, 2016). Group communication at school can function for persuasion where communication between group members can increase the participation

of group members in carrying out activities. In addition, communication in class can include problem-solving and decision-making functions by communicating to solve problems and make decisions on existing alternatives (Littlejohn et al., 2016). For this reason, this research will focus on delivering digital literacy messages to project based learning in group communication in the classroom, which consists of teachers and students. The purpose of this research is to find out the types and functions of group communication that occur in elementary and junior high school classes at Sekolah Kembang, where students aged teenagers and pre-adolescents gain digital literacy skills to support project based learning as a form of post-pandemic learning.

METHODOLOGY

This research uses a qualitative approach with descriptive methods. A qualitative approach relies more on texts and research is conducted in natural settings (Creswell, 2014). This research is also in accordance with one of the objectives of qualitative research, which is to describe the research object so that it can be interpreted (Fadli, 2021). The object of this research is Sekolah Kembang in South Jakarta that implements project based learning activities with the help of digital technology. The data collection technique used was through interviews with class teachers and the Head of Literacy teacher.

Researchers play an active role as a key instrument in this study, or what is called a key instrument (Creswell, 2014). Researcher first made contact with Sekolah Kembang to meet Head Teacher for Literacy as the key informant in this study. After that, the key informant gave the names of other informants, they are class teachers at the elementary and junior high school levels. The technique for selecting informants in this interview is to use the snowball technique (Fadli, 2021). And then the data were analyzed inductively by analyzing specific data into more general themes, and the researcher interpreted the meaning of the data (Creswell, 2014). Data validity and reliability techniques used in this study are triangulation and member checking. Data triangulation uses a lot of data and uses more than one theory (Fadli, 2021). This research will implement group communication theory and functional theory in groups. The member checking technique is carried out by re-checking the correctness of the data obtained from data sources or informants (Creswell, 2014).

RESULT AND DISCUSSION

Results

After carrying out the data collection stage by interviewing Siti Shaliha as a grade 4 elementary school teacher and Regina Nurashari as a junior high school teacher grade 7 and 8, the researcher produced findings regarding the implementation of project based learning at Sekolah Kembang, digital literacy efforts implemented, and communication patterns between teachers and students in learning activities. Project-based learning activities are carried out at all grade levels at Sekolah Kembang regularly after the government reinstated face-to-face meetings. The learning model is applied with the aim that students can make more sense of their learning process by creating it into a project. The frequency of project implementation by students is one project per quarter for elementary students, and two projects per semester for junior high school students. Students in grades 4, 5 and 6 of elementary school each consist of 22 students in one class, and students in grades 7 and 8 of junior high school have a total of 47 students.

Learning activities in this school include research, field work, reflection, and project exhibitions. Themes of the projects to be worked on is decided based on learning themes per quarter that have been discussed by the teachers. The idea of making a project comes from students and the teachers have role in directing students to think and make decisions. This learning model integrates all subjects in schools where each subject has a part in applying the theme of the project that is being worked on.

The research process in project based learning uses technological devices, software and mobile applications. The software used is work programs such as Google Suits. Students also use search

engines to find information, and Google is the most frequently used as search engine. The software applications used by students include Canva to design posters, and various applications to edit videos as output from project based learning. In order to access and participate in the application, students have a personal email. In using media and technology to support project-based learning, students in grades 4-6 elementary school and students in grades 7-8 junior high school are given the freedom to explore software, applications, websites and other digital information sources that are most suitable and have many features that can support their researches. Sometimes the students discuss with their teachers to decide which media and technology they will use. There is a policy for students to bring gadgets such as smartphones to school for doing research and doing assignments that require gadgets.

The process of introducing digital literacy in supporting project based learning is carried out through communication between teachers and students, both one and many students, and between students, who are classified as group communication. The students as a whole already have the ability to operate gadgets. At the elementary level research, students were first asked to look for various topics, and the teacher gave the students directions so that students could think about making questions from the topic. From this curiosity, students compile a list of questions that can represent the various information to be found. And then from these questions, the teacher helps students to determine or find more specific keywords to be used in search engines. Students have different abilities in finding ideas, tracing questions and finding keywords, so the teacher play an important role in directing students who need help one by one. The discussion can be done into a mind map or presentation slides if needed.

After collecting information from the internet, students sort and evaluate the information obtained. The teacher opens consultation session for conducting dialogue and finds out whether the students know the meaning of the information obtained and can retell it with sentences they compose themselves. Not only from teacher to student, communication in sharing knowledge for project based learning also takes place between students in group study. Group divisions are made based on the similarity of topics, themes, or end goals.

In junior high school classes, themes for project based learning can be determined by the school in advance or undefined themes so they are free to decide. In the first week of learning, students are first given exposure to the knowledge and skills needed, for example history, pulleys, simple machines, learning to observe, write journals, and interviews. From this exposure, students get various ideas for projects to be carried out, and the teacher helps choose and develop them. The students are given freedom to explore various applications, and the keywords needed in project based learning because they already have more knowledge. If students have difficulties, they are welcome to directly ask the teacher and find solutions together. In the early days of project development by junior high school students, the teacher help to ensure that students could find the information they needed. In this case, the teacher makes observations first to determine the level of students' ability to obtain information, some are already proficient and do not need assistance, some are able to operate on their own but still need assistance, and some students need assistance from the start. Sources of information for students vary, including from YouTube videos, written works, to research results, and usually students get information from more than one source. After getting the information, the teacher ensures that students can understand the information obtained. If in the information source students do not understand and need guidance, the teacher will help by reading it together. If they get more than one source of information, students are asked to compare the similarities and differences and then decide which source is more relevant or reliable.

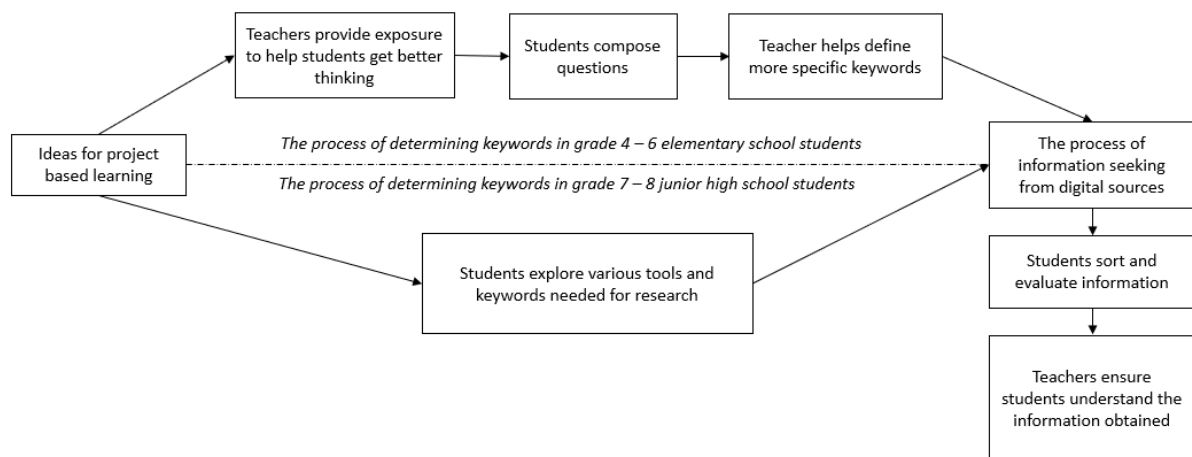


Figure 1. The process of digital literacy in project based learning activities at Sekolah Kembang, which is divided into processes for elementary students and processes for junior high school students.

Middle school students also exchange knowledge with their classmates by getting together while working on projects, where students work on various projects. Students communicate with each other and provide input when needed. To ensure there is an exchange of information, the teachers also select several students with interesting or new topics to perform presentations in the class, or invite students who wish to present in front of their friends. Based on data obtained from interviews with teachers, researcher found that the internet can enrich information for learning, and broaden students' perspectives. In one topic, students can get five or more information with various perspectives, compared to just reading a printed book.

Discussions

The implementation of digital literacy in Indonesia is generally carried out in schools through teaching, or from informal and community institutions (Sutrisna, 2020). Digital literacy in schools is conveyed through teaching materials which generally use information and communication technology devices (Sarnoto, 2022). In addition, a number of studies say that schools around the world have the opportunity to integrate ICT into the main school curriculum (Churchill, 2020). This simultaneously opens up opportunities to combine or integrate digital literacy practices into all subjects in schools.

The practice of using ICT for teaching and learning has practically become the main tool in the online teaching period during the pandemic, so that learning methods using computers are not only for ICT subjects, but all of them. At this time ICT shows that information connected to the internet and becomes a learning medium has a big role for the educational process. To be able to understand information from digital media, of course, digital literacy is needed. Schools implement literacy education through several methods, one of which is project-based learning. In project based learning, students' digital skills can be seen from their ability to identify the information needed, how to find this information online, and evaluate its validity and reliability (Churchill, 2020).

This research takes the Sekolah Kembang located in South Jakarta as a research object regarding digital literacy for project based learning through communication between teachers and students which takes place after face-to-face schools are held again. In this study, the researchers set final grade elementary school students grades 4, 5, 6 and junior high school students grades 7 and 8 as the focus of the study because their ages belong to the pre-adolescent and adolescent groups who are familiar with the internet but still need assistance in obtaining information. It was found that Sekolah Kembang integrates digital literacy into an integrated part of project based learning where students learn and practice skills acquired directly in their learning process for all subjects. From this

fundamental, Sekolah Kembang has implemented a literacy culture. Previous research stated that the implementation of a literacy culture in schools is useful for improving reading and writing skills, as well as for developing students' critical thinking skills (Mardiyah, 2018).

Research on digital literacy at Sekolah Kembang focuses on the ability of students to obtain and process information to carry out project-based learning. Every grade 4 to 8 student has a personal e-mail address to access Google as a search engine, and use Google Suite as a work tool consisting of e-mail, documents for collaboration, cloud-based data storage services and so on (Google Workspace, n.d.). The process of finding and selecting information that is carried out independently by students takes place continuously, starting from researching ideas and deciding what projects to work on, to design learning outputs. Therefore the ability to understand and interpret information obtained from the internet is very important (Faridah et al., 2022). Searching and sorting information through group communication in terms of its type and function will be the main focus of this research discussion.

The role of the teachers at Sekolah Kembang in directing students to determine keywords, sorting, and understanding information is carried out through group communication between teachers and students. The process of searching for information by students begins with determining keywords for a problem to be solved. For elementary school students, the teacher provides a trigger so that students have ideas for projects to be worked on according to the school's theme and curriculum. For example, after giving a student presentation about the natural phenomenon of the tsunami, the teacher reminds students again. After that the students have a thought to find out in detail how the tsunami occurred. The teacher then guides the students to make a list of questions about what information they are looking for based on the students' thoughts, until finally they have keywords that will be entered into the search engine. Thus at this stage, a two-way communication process takes place between one class teacher and all students. Within this scope of communication that occurs is large group communication, namely group communication with many people in it (Damanik, 2018). The elementary school teacher at Sekolah Kembang acts as a communicator who initiates the large group communication process, which functions as persuasion. This is based on the functional perspective of group communication initiated by Littlejohn (Littlejohn et al., 2016) which determines the output of the group. This perspective states that sharing information will explore identifying thinking errors as well as a means of persuasion (Littlejohn et al., 2016).

Because students in grades 4, 5 and 6 at Sekolah Kembang have varying levels of ability to seek information, the teacher's role is to direct students who need assistance, both individually and in smaller groups. In this communication, the process that occurs is interpersonal communication, and small group communication, which is communication between individuals and in groups with three to seven members (West & Turner, 2010). According to Joseph A. Devito in Damanik (Damanik, 2018), interpersonal communication involves participants being communicators and communicants simultaneously alternately and face to face. Apart from individuals, project based learning is also designed to be worked on by students in groups consisting of 2-4 people. West & Turner (2010) said that small groups allow their members to participate more. In this case, the exchange of information between students regarding the use of keywords can become more intense.

There is a difference between the interaction of teachers and students of elementary and junior high schools at the stage of deciding keywords. After receiving exposure to the targeted learning materials, junior high school students are encouraged and free to explore directly various applications, search engines and keywords needed in project based learning. Students are welcome to ask directly to the teacher if they experience difficulties. The process of teacher and student communication in determining keywords, both teachers and students act as the main communicators in large groups, which is their classroom. Interpersonal communication is more dominant than large group communication in this situation. Group communication occurs in the context of interpersonal communication, so that the goals achieved include personal goals and group goals (Tutiasri, 2016). In the context of interaction here, the goal to be achieved is to get directions about the assignments students are working on themselves, as well as to carry out learning activities in class. In addition to

this way of interaction, junior high school students also discuss independently with each other inside or outside the classroom, and some present or share stories in class about the projects they are working on. The group communication setting requires high motivation and initiative. Jalaluddin Rakhmat mentioned in Damanik (2018), motivation in communicating is one of the factors of group communication, apart from solidarity, intensity, and communicative action.

The description above covers one of the stages in digital skills in digital literacy, namely the ability to use search engines and find information (Kurnia et al., 2021). Furthermore, digital literacy skills require the ability to select and evaluate information. At Sekolah Kembang elementary, the teacher opened a face-to-face consultation session to find out whether the students understood the information they received. The indicator used by the teacher in determining the success of this stage is that students can tell the information obtained in their own language. In this process, there are main messages in ongoing group and interpersonal communication, which is messages from teachers to students or vice versa about how to understand or what things are not understood from information. When helping students, the teacher directs students to think and question again whether the information is correct, so that confusion or problems can be solved. Functional theory on group communication sees that interaction within groups is an instrument for group decision making, which emphasizes the connection between the quality of communication and the quality of group output, as well as being a way to find out thinking errors (Littlejohn et al., 2016). So that the group communication that occurs in this process is for decision making and problem solving, where teachers and students jointly solve a problem.

A similar phenomenon occurs in the communication process in identifying and understanding sources of information at the junior high school level. The teacher ensures that students can understand the information obtained by directing and answering students' difficulties. When they don't understand information from one source, the teacher helps by reading together and testing how far students understand. When there are quite a number of sources, students are asked to compare these sources and decide which is the most relevant and reliable. Digital skills are the stages of digital literacy that are applied in this communication (Kurnia et al., 2021). The decision-making and problem-solving functions are also the main functions in group communication which can be seen at this stage of communication (Littlejohn et al., 2016). The researcher found that there were differences in the approach to digital literacy education between students in grades 4 - 6 of elementary school and grades 7 - 8 of junior high school, although the age range was not wide. This can be seen from the teacher's treatment of elementary school students who is more directed and guided first, while junior high school students are welcome to explore according to their knowledge first. However, the findings of differences in treatment and learning outcomes from the age factor were not investigated further in this study.

CONCLUSION

Digital literacy education is carried out in an integrated manner with the implementation of project based learning, through communication between teachers and students and between students, and not through special sessions regarding digital literacy. The Google search engine and Google Suite tools are the main tools and worksheets for students in learning which consist of research, going into the field, making reports, and creating exhibitions. The ability to search, sort and understand information is the main digital skill that is continuously practiced by students during the learning process. Digital literacy education is delivered through directions for making questions, determining keywords, sorting information, and understanding the information obtained. Communication that appears in the process of digital literacy education includes large group communication, small group communication, and interpersonal communication, all of which are carried out directly. The entire communication process takes place in two directions. As for the function of group communication according to functional theory that occurs in the process include the function of persuasion, decision making, and problem solving.

REFERENCES

- Arviansyah, M. R., & Shagena, A. (2022). Efektivitas Dan Peran Dari Guru Dalam Kurikulum Merdeka Belajar. *Lentera*, 17(1), 40–50.
- Churchill, N. (2020). Development of students' digital literacy skills through digital storytelling with mobile devices. *Educational Media International*, 57(3), 271–284. <https://doi.org/10.1080/09523987.2020.1833680>
- Creswell, J. W. (2014). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed., Vol. 21, Issue 1). SAGE Publications.
- Damanik, S. A. (2018). *KOMUNIKASI KELOMPOK DALAM MENINGKATKAN KUALITAS KERJA TEAM*. 2, 1–33.
- Fadli, M. R. (2021). Memahami desain metode penelitian kualitatif. *Humanika*, 21(1), 33–54. <https://doi.org/10.21831/hum.v21i1.38075>
- Faridah, N. R., Afifah, E. N., & Lailiyah, S. (2022). Efektivitas Model Pembelajaran Project Based Learning Terhadap Kemampuan Literasi Numerasi dan Literasi Digital Peserta Didik Madrasah Ibtidaiyah. *Jurnal Basicedu*, 6(1), 709–716. <https://doi.org/10.31004/basicedu.v6i1.2030>
- Google Workspace. (n.d.). *Google Workspace*. Retrieved February 20, 2023, from <https://workspace.google.com/intl/id/features/>
- Junaidi, R. D., Arif, E., & Sarmiati. (2022). Komunikasi keluarga dalam menghadapi disrupsi teknologi pada generasi digitasi native (Studi kasus 3 keluarga tokoh agama islam di Kota Solok). *Jurnal Pendidikan Dan Konseling*, 4(4), 5537–5543. <https://core.ac.uk/download/pdf/322599509.pdf>
- Kementerian Komunikasi dan Informatika Republik Indonesia. (2014). *Riset Kominfo dan UNICEF Mengenai Perilaku Anak dan Remaja Dalam Menggunakan Internet*. https://www.kominfo.go.id/content/detail/3834/siaran-pers-no-17pihkominfo22014-tentang-riset-kominfo-dan-unicef-mengenai-perilaku-anak-dan-remaja-dalam-menggunakan-internet/0/siaran_pers
- Kharizmi, M. (2015). KESULITAN SISWA SEKOLAH DASAR DALAM MENINGKATKAN KEMAMPUAN LITERASI. *Jupendas: Jurnal Pendidikan Dasar*, 2(2), 11–21. <https://www.neliti.com/id/publications/71420/kesulitan-siswa-sekolah-dasar-dalam-meningkatkan-kemampuan-literasi>
- Kurnia, N., Astuti, S. I., Kusumastuti, F., Monggilo, Z. M. Z., Prananingrum, E. N., & Adikara, G. J. (2021). *Seri Modul Literasi Digital Kominfo-Japelidi-Siberkreasi*. 20.
- Littlejohn, S. W., Foss, K. A., & Oetzel, J. G. (2016). *Theories of Human Communication* (11th ed.). Waveland Press.
- Luthfia, A. (2015). Pendidikan Literasi Media untuk Menghadapi Risiko Online dan Jaringan Komunikasi Remaja di Internet. *Commline*, 6(August), 143–159.
- Mardiyah, A. A. (2018). Budaya Literasi Sebagai Upaya Peningkatan Keterampilan Berpikir Kritis Di Era Industri Revolusi 4.0. *Prosiding SNP2M (Seminar Nasional Penelitian Dan Pengabdian Masyarakat) UNIM*, 0(1), 171–176.
- Nudiati, D., & Sudiapermana, E. (2020). Literasi Sebagai Kecakapan Hidup Abad 21 Pada Mahasiswa. *Indonesian Journal of Learning Education and Counseling*, 3(1), 34–40. <https://doi.org/10.31960/ijolec.v3i1.561>
- Sarnoto, A. Z. (2022). Peran Teknologi Informasi Dan Komunikasi Dalam Pengelolaan Pendidikan Menengah Pasca Pandemi Covid-19. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 3(3), 319–328. <https://doi.org/10.31538/munaddhomah.v3i3.284>
- Savitri, N. L. P. C., Rahman, R. A., Venyutzky, R., & Rakhmawati, N. A. (2021). Analisis Klasifikasi Sentimen Terhadap Sekolah Daring pada Twitter Menggunakan Supervised Machine Learning. *Jurnal Teknik Informatika Dan Sistem Informasi*, 7(1), 47–58. <https://doi.org/10.28932/jutisi.v7i1.3216>
- Sekolah Kembang. (n.d.). *Sekolah Kembang*. Retrieved February 10, 2023, from <https://www.sekolahkembang.sch.id/>

- Singh, V., & Thurman, A. (2019). How Many Ways Can We Define Online Learning? A Systematic Literature Review of Definitions of Online Learning (1988-2018). *American Journal of Distance Education*, 33(4), 289–306. <https://doi.org/10.1080/08923647.2019.1663082>
- Sutrisna, I. P. G. (2020). Gerakan Literasi Digital Pada Masa Pandemi Covid-19. *STILISTIKA: Jurnal Pendidikan Bahasa Dan Seni*, 8(2), 268–283. <https://doi.org/10.5281/zenodo.3884420>
- Syarifuddin, S., Basri, H., Ilham, M., & Fauziah, A. F. (2021). Efektifitas Pembelajaran Daring Mahasiswa Pendidikan Matematika ditengah Pandemi Covid-19. *JagoMIPA: Jurnal Pendidikan Matematika Dan IPA*, 1(1), 1–8. <https://doi.org/10.53299/jagomipa.v1i1.16>
- Tutiasri, R. P. (2016). Komunikasi Dalam Komunikasi Kelompok. *CHANNEL: Jurnal Komunikasi*, 4(1), 81–90. <https://doi.org/10.12928/channel.v4i1.4208>
- Valtonen, T., Tedre, M., Mäkitalo, Ka., & Vartiainen, H. (2019). Media Literacy Education in the Age of Machine Learning. *Journal of Media Literacy Education*, 11(2), 20–36. <https://doi.org/10.23860/jmle-2019-11-2-2>
- West, R., & Turner, L. H. (2010). *Introduction Communication Theory Analysis and Application* (4th ed.).
- Wibowo, A., Armanto, D., & Lubis, W. (2022). Evaluasi Pembelajaran Berbasis Proyek Pada Materi Bangun Ruang Kelas V Sekolah Dasar Dengan Model CIPP. *Journal of Educational Analytics*, 1(1), 27–40. <https://doi.org/10.55927/jeda.v1i1.424>
- Williamson, B., Eynon, R., & Potter, J. (2020). Pandemic politics, pedagogies and practices: digital technologies and distance education during the coronavirus emergency. *Learning and Media Technology*. <https://www.tandfonline.com/doi/full/10.1080/17439884.2020.1761641>