

Received: December 2023 Accepted: January 2024

DOI: <https://doi.org/10.58262/ks.v12i2.307>

Phenomenology Study: Higher Education Students Digital Literacy in Society 5.0

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Abstract

This study intends to determine the impact of online learning on students' digital literacy skills. It employed a phenomenological research method and gathered data through in-depth interviews with five students. Data analysis was performed using horizontalization and a cluster of meaning stages. The study examined students' digital literacy competencies, the integration of online learning in enhancing students' digital literacy, and the effects of online learning on students' digital literacy. Students' digital literacy competencies encompass their understanding of digital media usage, social media platforms, online activities, and skills in searching, accessing, and processing information on digital platforms. The incorporation of online learning to enhance students' digital literacy encompassed the initiation of online learning during the early stages of the pandemic, identifying the shortcomings of online learning during that period, introducing collaborative group work in online learning, and utilizing diverse video conference platforms in online learning designs to deliver course content and enhance students' digital literacy skills. The effects of online learning encompass students' enthusiasm, the positive influence of video conference platforms in supporting learning during the pandemic, the negative consequences of online learning, and students' expectations regarding its implementation.

Keywords: Digital Literacy, Society 5.0, Phenomenology.

Introduction

The recent COVID-19 pandemic has taken most countries by surprise, including Indonesia, resulting in high fatality rates among infected patients (Ilpaj & Nurwati, 2020). This is a novel issue that the world must confront today. Efforts to address the pandemic have included remote work, social separation, lockdowns, and remote learning (Cindrakasih, 2021; Ridwan & Damayanti, 2022). Indonesia is among the nations impacted by the COVID-19 pandemic. During its development, it expands rapidly over all regions of Indonesia. The COVID-19 pandemic in Indonesia has led to significant changes in all areas of life, particularly in the field of education.

The COVID-19 pandemic containment measures have led to alterations in traditional face-to-face teaching and learning activities. It has now transitioned to online learning. Online learning is a form of education where instructors and students engage in learning activities using the internet as a platform, as defined by Kunarto (2017). This complies with the policy issued by the Minister of Education and Culture of Indonesia, which mandates educational institutions to switch from in-person lectures to online lectures to prevent the spread of COVID-19. Lecturers utilize technology for teaching purposes. Digital technology allows students and

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lecturers to engage in the learning process from separate locations (Milman, 2015). Today, digital technology is integral and has emerged as the primary form of literacy for kids. Current pupils, belonging to Generation Z, are adept at utilizing digital technologies for acquiring knowledge. APJII (2020) data shows that over 80% of students aged 18 to 26 are internet users. The Ministry of Communication and Information (2020) reported that Indonesian citizens continue to disseminate falsehoods. It is crucial to enhance the digital literacy abilities of the Indonesian population, particularly the younger generation who are considered digital natives. Digital literacy encompasses proficiency in utilizing digital technologies and the ability to recognize, obtain, organize, assess, and combine information. Digital literacy is an essential skill for every individual in the age of the industrial revolution. 4.0. Efforts to enhance digital literacy among students should be founded on data and facts regarding their digital literacy profiles. This study aims to establish the digital literacy profile of students and their expectations for digital-based learning. The research provides the foundation for creating digital literacy program to empower pupils as capable individuals in the 21st century. To utilize this technology effectively, one can employ digital literacy to adapt to the industrial revolution 4.0 era (Pangondian, Santosa, & Nugroho, 2019). Digital literacy refers to the capacity to effectively use technology, analyse, comprehend, and evaluate the reliability of information found in digital materials (Common Sense Media, 2009). The Ministry of Communication and Information Technology defines digital literacy as the proficiency in utilizing a computer and accessing content accurately and efficiently.

The lecture process has undergone a significant transformation due to the introduction of virtual lectures. Lecturers and students must conduct lectures digitally using platforms such as Google Meet, Zoom, WhatsApp, or YouTube. One aspect contributing to this transformation is their virtual or remote utilisation of technology in the lecture process. The research problem is defined as "What is the profile of students' digital literacy?" The problem is broken down into research questions: (1) What is the level of students' digital literacy competencies?; (2) How does online learning affect students' digital literacy?; (3) What are the effects of online learning on students' digital literacy?

Method

This study employs a qualitative research methodology. Creswell's viewpoint, as cited by Eddles Hirsch (2015), defines qualitative research as a study that concentrates on analyzing and documenting an individual's experience of a particular phenomena in everyday life. Denzin & Lincoln categorize qualitative research methods as biographical approaches, phenomenology, case studies, grounded theory, and ethnography (Irianto and Subandi, 2015). Husserl's statement, as stated by Padilla Diaz (2015), suggests that while all qualitative research contains a phenomenological feature, the phenomenological technique is not suitable for all types of qualitative research. Tuffour (2017) asserts that the phenomenological approach represents a significant advancement in qualitative research methodology that has developed and evolved over several decades in the twentieth century. This research aims to investigate the fundamental nature or organization of human consciousness. Phenomenology is a qualitative research method that enables researchers to use their subjectivity and interpersonal skills in the exploratory research process (Alase, 2017).

Sohn, et al. (2017) highlighted several considerations that are essential in qualitative research, particularly when employing a phenomenological approach. Contemporary researchers often claim to utilize a phenomenological technique without connecting this method to the concepts

of phenomenological philosophy. Phenomenological study must focus on the traits of referring to reality, comprehending the meaning of events and their relationship to individuals in specific contexts, and beginning with silence.

Mujib (2015) identified two intrinsic aspects of the phenomenological method in the sphere of religion. This technique involves comprehending other people's religions from a neutral stance. Data collection in this approach is supported by various disciplines like history, archaeology, philology, psychology, sociology, literary studies, and language.

Data was collected via in-depth interviews. The interview panel comprised four PGPAUD (Early Childhood Education Study Program) students and one dance major student. The study utilized a research instrument consisting of interview questions based on the problem formulation and research questions.

Results and Discussion

Result

The research covers students' digital literacy competencies, the integration of online learning to enhance students' digital literacy, and the effects of online learning implementation on students' digital literacy.

a. Student Digital Literacy Competencies

The research primarily focused on pupils' proficiency in utilizing digital information media.

... You can watch YouTube at any time. When we are working on a task that we don't understand, we can reopen it over and over again. So, it's the duration ... YouTube, now Instagram also has... what is it? GTV? What is called? I forgot about it. Yes, it's IGTV, it's pretty good for making short podcasts. Those that are not 2 hours long can be uploaded there... (Sa3, 78, 81).

Besides college assignments.... I'm looking forrr, mostly lyrics ... umm mostly song lyrics, ... watching K-POP, umm short films or people's vlogs but motivational ones... (So4, 33, 39).

Yes, I looked for a cooking recipe. At that time, my Mom wanted to make something, but she didn't know the ingredients. So, I looked for it ... Then I directly went to YouTube ... So, umm yesterday, I also made dim sums, in a video, they use tapioca flour. But in another one, they don't use it. So, I keep on watching other videos. It turns out that many people use it, so I ended up using it. Hehehhe ... (Er3, 148-150).

Next, the diversity of social media used by students is explained. The number of social media used by students can describe how often they surf the digital world.

WA, Facebook, Instagram, Sir. (NNA1, 34).

Facebook has started to be left behind. Because umm how do I say it? People start to switch to Instagram, Twitter, and such. So, for Facebook, people's impression, such as Gadis' friends, is like it's uncool. They'll say, "Hub? You are still on Facebook?" So, it's like you're so old, you know. Hehehehe (GN2, 15).

Lots. Twitter ... I use Twitter, I don't use Facebook, I use Instagram ... (So4, 18).

YouTube, Twitter? I don't use it, Sir. (Sa3, 84).

Yeah, I like to use TikTok when I'm bored, hehe (Er3, 35).

Then, we dig deeper into their activities when surfing social media. The use of social media by

the students varies widely.

No, Sir. On Facebook, they usually use it only to promote things. They rarely post these days. The posts are usually sermons or sharing tips, things like that (NNA1, 36-37).

Twitter... Umm me, what is it? Ummm I'm a K-POPer. Anddd there are so many K-POPers who still use Twitter. I get to know my friends who are in the same fandom, I also become an admin in one of the fanbases. ... What tricks on Twitter I often find about? There are lessons ... For example, if we want to ask questions about lessons, or share the lessons, we can do that on Twitter ... But what I do is umm how do I say this? I look for templates umm PowerPoint templates for presentations ... Mostly reading. The threads are like umm yeah, I only read the threads ... Instagram ummm I rarely use Instagram, actually. I mostly see my friends' stories ... (So4, 19, 27, 28, 31, 36).

... what is in Gadis' Instagram? Umm arts, I mean dancing, music. So, works that have already been made are things that are usually shared again. For example, covers or what is that ... So far, on Instagram, there are no umm Gadis' original work, things Gadis made by herself. But, Gadis is like make covers ... I have. Coincidentally, at that time umm I participated in Mrs. Hani's, a PGSD lecturer, webinar about sexual harassment. Well, now Gadis becomes a bit concerned about it, so I think it's good to share such information. ... It's even in Gadis' highlight ... Gadis feel impressed. And I'm really concerned about things that Mrs. Hani said, uh ... it becomes Gadis' motivation to share it with other friends. And ... why am I so sure? It's because Mrs. Hani is one of the umm activists of a women's movement in Bandung. So, what is it, it's her field. And after looking at her profile, it turned out that Mrs. Hani had often been invited to talk shows on TV, so I'm sure about her. And also, there are many cases about umm that. So, I want to share it because I care, hehebbhe (GN2, 18-21)

For me, I look at people's snapgrams and look at the explore... (Er3, 94).

... ooh it's just dancing, Sir, sometimes there are also TikTok that are useful... like making cakes. On TikTok, it's faster than watching YouTube. It's an entertainment, bebebe (Sa3, 41-42).

Another thing that needs to be considered in assessing students' digital literacy competencies is their ability to seek, obtain and manage media and information.

The consideration is because when it comes to sermons, usually there are hadiths and arguments that support it, Sir. (NNA1, 42).

Usually on Google. Then, I usually search the Garuda portal for journals, and search for articles. Oh, I search on Google Scholar as well as Microsoft, what is it called? Microsoft, I forgot the website, but there's Microsoft in it... Also, this Indonesia library, yes right (So4, 46).

On Google and YouTube ... on Google, there are usually just regular articles, so they're not necessarily valid. We don't know whether it is true or not. But sometimes umm I like to search on regular Google. But sometimes it comes out, when you click it, you'll go straight to Google Scholar. (Er3, 134, 142).

First, I open Google for sure ... then scholarship ... then I open YouTube (Sa3, 156-158).

... on Google Scholar, some discuss it. Dance, arts. So, they really dig deep umm from the basics first. ... Of course, I'm looking for things that are appropriate and needed for the question. Then, I usually see this first, what is it? Umm this, for reference. Yes, the author, the year. Well, if there's none, I usually look somewhere else. I look at it first and then see the contents (GN2, 23, 48).

b. The Implementation of Online Learning for Students' Digital Literacy

The implementation of internet-based learning or online learning at the beginning of the pandemic is considered to be not optimal and is only oriented towards assignment collection.

Yes, we already get the assignments (So4.1).

Last semester, many people used WhatsApp groups. So, many students only fill in the presence list, Sir. No, they are not attending the lectures. Because it's usually only in the form of VN (voice note). You can listen to it at any time. So, it's ineffective at that time. For example, ah I want to hear it later, but in the end, you don't even listen to it later (NNA1, 22).

They usually give assignments ... at the beginning of the pandemic was like difficult, very difficult like for example, from just a regular class, then suddenly you had to go online. So, there are more assignments, like lectures using Zoom ... (Er3, 54).

Yes, it's still in a group. We fill the presence list by using VN (voice note), hebe ... in the beginning, it felt difficult because the assignments that should have been in the class hours are replaced with other assignments, things changed and I was shocked ... (Sa3, 11, 59).

The implementation of online learning at the beginning of the pandemic still has many weaknesses, so it does not develop students' digital literacy competencies.

It's mooooreee difficult, Sir. I'll say it's because of umm. First, because dancers have more practical work. So umm we have to know the techniques. The lectures, for now, umm I think is lacking, Sir. It's less interactive. So, the students are just, "ready, Sir. ready, Ma'am, "that's how it was delivered (GN2, 2).

... ummmmmm sometimes I forget the class schedules (NNA1, 19).

Actually, in my opinion, online learning is not very effective. Because it makes it hard to understand the materials, and sometimes I wake up late... (So4.50).

... Mr. Asden teaches math. So, it's hard, for example, if you're lecturing while you're also giving materials, so it's like writing numbers on the board and then he records the videos. So, it will be easier to understand than lecturing by using umm, yes, PowerPoint. There's nothing like, "we have to come here first then times this" (Er3, 77).

... There might be some people who don't understand. The lecturer talks, mixed with other people's voices. And the duration, it's short if it's free. So, if it ends, we need to open again. We continue with a new link, hebebe (Sa3, 19-22).

In addition, the implementation of group work in online learning is still not effective. The reason is that there are still many students who cannot condition the online learning process effectively.

For example, we are working on assignments, sometimes some respond slowly. So, it hinders the work process ... yes WhatsApp group, WhatsApp group (NNA1, 16-17).

... Maybe, for example, for the technicalities, even if it gets worse umm you have no choice, you need to do it online, full online materials, but for practical work maybe you can do it in groups. But it doesn't seem possible either ... (GN2, 3).

Changes in online learning design or internet-based learning from its beginning which are still rigid and only oriented towards collecting assignments into innovative learning by utilizing video conference platforms make the lectures more memorable and effective in developing students' digital literacy competencies.

So far, Google Meet ... video conference ... there, we can see each other face to face. Besides that, we can umm

can save time. Because if it's via chat, group, umm there's a lot of responses. So, we need to read one by one which takes a long time (NNA1, 24-27).

It's not as heavy as it used to, Sir. Now, it's structured, like using Zoom, using Google Meet (Sa3, 8, 10).

... these days umm the learning is already on Zoom, on Google Meet so it's better. And the assignments are not too much like in the past, and they are to be collected the next week (Er3, 54).

... there was one class whose lecturer gave the material directly. So, he made a video, then uploaded it to YouTube, then we just watched it from his YouTube. If it's how it works, I think it's more effective, Sir. Because we feel like they really teach us, even though it was online, we can feel that we were taught by the lecturer (GN2, 6).

c. Effects of Online Learning on Students' Digital Literacy

The transition from offline to online learning has a definite impact on students' enthusiasm for the learning process. Research findings indicate a greater enthusiasm for offline learning compared to internet learning.

I personally prefer it offline. So umm if there are classes, there are courses you don't like but there are friends who support you. So, I suddenly like the class. So, it's like, I won't be alone (Er3, 56).

Hebebe. I want to be in groups again. For Wawa, in the past, when it was still offline, there were a lot of courses in which the students were suddenly divided into groups. Since being offline, I mean since being online, we have become really really individualistic. I miss the group work, presentations, debates with different thoughts, and such (Sa3, 62).

Actually, in my opinion, online learning is not very effective. Because it makes it hard to understand the materials, and sometimes I wake up late... (So4, 50).

Furthermore, the implementation of online learning also has various impacts. One of the positive impacts of implementing online learning is to support the learning process during a pandemic.

... There haven't been any obstacles during this semester, Sir. It's still going well ... Umm so the only one talking is the host. Unless the host asks for umm a question and answer process or asks a question ... sometimes, some lecturers ask us to activate the camera (NNA1, 28-31).

... can see face to face even if it's not directly (Sa3, 59).

However, the implementation of online learning also has negative impacts on students, especially if the lecturers do not design online learning processes creatively and innovatively.

It doesn't feel like a class, Sir. It's like a simulation (Sa3, 4).

... maybe because of communication so we umm what is it? Sometimes it is difficult to understand the assignments, the assignments are like huh what? Sometimes, maybe it's because we've been too long staying at home. So, we feel like, feel mixed feelings (So4, 58).

The students want the professors to use modern platforms to give learning materials that focus on more than just course tasks, aiming to enhance students' digital literacy skills.

Can it be like, for example, watching YouTube. So, it is designed informally via Zoom. So, we pay attention to the lecturers (Sa3, 65).

Hopefully, with these online lectures, the students can make the best use of gadgets and use more time for independent study ... I hope that each learning is done using video conferencing with discussions, Sir, if possible, there should not be too many assignments in groups because it's difficult to do (NNA1, 32-33).

... The lecturers shouldn't be like keep on giving assignments. But more like he explains, but he gives assignments related to what he has explained. It should not be other than the material he explained (Er3, 64).

... optimization for the lecturers, Sir. Because what Gadis feels is that mostly the lecturers only provide materials, then the lecture. But after that, I think ... because many of my friends also confide in me. It feels like, after the lecture, we can't process the information ... But for example, new platforms like TikTok, or via Zoom meeting. Because Gadis sees that till now, there is no umm practical work lecture via Zoom... the lecturer made a recording or a podcast and they uploaded it on Spotify. So, the students might be more interested ... (GN2, 3).

Discussion

The research results were analysed in three categories: 1) Students' digital literacy competencies; 2) Implementation of online learning for students' digital literacy; 3) The impacts of online learning on students' digital literacy.

a. Students' Digital Literacy Competencies

The students already have initial knowledge regarding the use of digital information media. With this knowledge, they use digital information media to look for assignment materials, watch K-pop, short films, motivational vlogs, search for recipes, cooking tutorials, song lyrics, and so on (Sa3, 78, 81; So4, 33, 39; Er3, 148-150). This is in line with Supratman (2018, p. 52) who explains that digital natives use social media to get information, communicate virtually, explore hobbies, access entertainment, support course assignments, do online learning, and adopt fashion and lifestyle styles. Meanwhile, looking at the social media owned by the students, the data show that the students are active in using various social media, such as WhatsApp, Facebook, Instagram, Twitter, YouTube, and TikTok (NNA1, 34; GN2, 15; So4, 18; Sa3, 84; Er3, 35). Social media itself is an intermediary on the internet that allows users to present themselves and interact, collaborate, share, communicate with other users virtually (Nasrullah, 2015). According to Sanggabuwana and Andrini (2017, p. 172), there are various kinds of social media, ranging from social networks (Facebook, Linked-In, WhatsApp, Line, Instagram), personal social networks (Yammer, Socialcast, Jive), content sharing sites (YouTube, Flickr), to wiki blogs (Wikipedia) (Blogger, WordPress), and microblogs (Twitter). The use of social media by students is considered wise enough, they use social media as a place to interact, socialize, find information, and share information. Social media as a place to promote something, stalking Instastory, reading threads on Twitter, entertainment, sharing information about sermons and information about sexual harassment (NNA1, 36-37; So4, 19, 27, 28, 31; GN2, 18-21; So4, 36; Er3, 94; Sa3, 41-42). Online learning itself can be defined as an activity or teaching and learning process carried out by teachers and learners by utilizing internet networks and digital information media. Therefore, the implementation of online learning is expected to improve students' digital literacy competencies. Students' digital literacy is the ability to understand and use information in various forms from a very wide variety of sources (Paul Gilster, 1997; Setiasih, 2023; Setiawardani, 2021; Apriyanto, 2021). Students seek, process, and double-check information by utilizing digital media such as Google, Google Scholar, Garuda Portal, and YouTube as sources of information (NNA1, 42; So4, 46; Er3, 134, 142; Sa3, 156-158; GN2, 23).

b. Implementation of Online Learning for Student Digital Literacy

Covid-19 pandemic requires learning to be done online. Online learning at the beginning of the pandemic is considered to be not optimal, this is because the learning process was task-

oriented and the technology used was only WhatsApp. In learning via WhatsApp, attendance was done by sending a VN (voice note) which allowed the students to ask their friends to fill in their presence list (NNA1, 22; Er3, 54; Sa3, 11, 59). Learning design also needs to be considered, both in technicality and delivery. In delivering the learning, careful preparation is needed, one of the factors is audio checking (Sa3, 19-22). The design of the learning delivery must be considered because several courses may require innovation in their delivery such as mathematics courses and for dance students, whose learning is more practical in order to find out the techniques in dance, this must be designed in such a way to be more interactive (GN2, 2; Er3, 77). Meanwhile, the implementation of group learning carried out online at the beginning of the pandemic is considered to be not optimal because some group members responded slowly so that it hindered the work process (NNA1, 16-17).

However, over time, the lecturers were able to innovate by making changes to online learning designs. At the beginning of the pandemic, the learning was originally designed so rigidly and was only task-oriented. It is now starting to be innovated by utilizing video conferencing platforms such as Zoom and Google Meet which can be a place for face-to-face (virtual) learning, and there are several lecturers who take advantage of other platforms such as making videos on YouTube (NNA1, 24-27; Sa3, 8, 10; Er3, 54; GN2, 6). Oktavian and Aldya (2020, p. 133) state that online learning will be very effective if it fulfills the essential components of learning, namely discursive, adaptive, interactive, and reflective with elements that will be very good if they are integrated with the students' learning environment. Therefore, in implementing online learning, educators are expected to continue innovating and adapting by utilizing various available digital platforms.

c. The Impacts of Online Learning Implementation on Students' Digital Literacy

It cannot be denied that changes in the implementation of learning from offline to online certainly affect students' enthusiasm in learning. Student enthusiasm in doing online learning is considered to have decreased. This is due to the absence of direct interaction so that the students do not get any positive energy in building enthusiasm for learning (Er3, 56; Sa3, 62; So4, 50). The implementation of online-based learning also has various impacts, both positive and negative. One of the positive impacts felt by the world of education is the support for teaching and learning activities during the pandemic. The learning process during a pandemic using video conferencing platforms for virtual face-to-face meetings is considered quite effective. Video conferencing is an internet-based real-time audio and video communication (Herryawan, 2009). In the learning process that utilizes these platforms, only the host (lecturer) speaks except in the question and answer session, the lecturer asks the students to talk. In video conferences, it is possible to see each other face to face virtually by activating the camera (NNA1, 28-31; Sa3, 59).

In addition to the good effects, there are negative consequences include heightened lethargy, challenges in comprehending tasks, and fluctuating moods (Sa3, 4; So4, 58). Lecturers in online learning should give learning materials using the latest platforms and focus on developing students' digital literacy competencies, rather than just focusing on course tasks. New platforms like TikTok and podcasts can support the introduction of online learning. The platforms were selected for their ability to package learning resources in a flexible manner for students. It is advisable to reduce group assignments in current online learning as students find them challenging to complete. Social media has a good effect on adolescents by enhancing their academic performance, potentially aiding in overcoming learning challenges (Setiasih, 2023).

Conclusion

The researchers undertook a phenomenological study to explore how studying during the epidemic has affected student digital literacy. The survey yielded three categories of student digital literacy. An analysis of student digital literacy indicates that students possess proficient digital literacy skills. The second aspect involves implementing digital literacy education for students throughout the epidemic, where learning is conducted digitally. However, not all educators possess proficient skills in delivering appropriate digital learning experiences. The transition from offline to online schooling has a significant impact on students' digital skills and affects their enthusiasm for learning. Student engagement in online learning is perceived to have declined. This is due to the lack of direct engagement, which prevents students from gaining positive energy to cultivate excitement for learning.

Acknowledgment

This paper was funded by the Ministry of Education and Culture's Research and Technology department. We appreciate the valuable input and expertise provided by our colleagues from Universitas Pendidikan Indonesia, which significantly contributed to the research, even though they may not fully endorse all the interpretations or results presented in this paper. We appreciate Mrs. Heny Djoehaeni from the Early Childhood Education Program at Universitas Pendidikan Indonesia for providing valuable feedback that significantly enhanced the paper. Any faults made are solely our responsibility and should not damage the excellent name of these individuals and organization.

References

- Alase, A. (2017). The Interpretative Phenomenological Analysis (IPA): A Guide to a Good Qualitative Research Approach. *International Journal of Education and Literacy Studies*, Vol. 5 No. 2, April 2017. DOI: 10. 7575/aiac.ijels.v. 5n.2p.9
- Apriyanto, A., Setiawardani, W., & Yusron, E. (2021). Critical pedagogy: The role of student digital literacy in understanding critical pedagogy. *PrimaryEdu: Journal of Primary Education*, 5(2), 235-235.
- Azhari, E. K., & Citrawati, T. (2022). DAMPAK PANDEMI COVID 19 TERHADAP PENDIDIKAN DI INDONESIA. *Pena Kreatif: Jurnal Pendidikan*, 11(2).
- Cindrakasih, R. (2021). Dampak COVID-19 Terhadap Sosial Budaya Dan Gaya Hidup Masyarakat. *Jurnal Public Relations (J-PR)*, 2(2), 87-97.
- Eddles-Hirsch, K. (2015). Phenomenology and Educational Research. *International Journal of Advanced Research*, Vol. 3 Issue 8, Agustus 2015.
- Gilster, P. (1997). *Digital Literacy*. New York: Wiley.
- Herryawan, K. (2009). Video Conference. Jakarta: Pusat Teknologi Informasi dan Komunikasi Pendidikan Departemen Pendidikan Nasional.
- Ipaj, S. M., & Nurwati, N. (2020). Analisis pengaruh tingkat kematian akibat COVID-19 terhadap kesehatan mental masyarakat di Indonesia. *Focus: Jurnal Pekerjaan Sosial*, 3(1), 16-28.
- Irianto & Subandi. (2015). Studi Fenomenologis Kebahagiaan Guru di Papua. *Gajah Mada Journal of Psychology*, Vol 1, No. 3 September 2015. Hlm. 140—166.
- Kunarto, E. (2017). Keefektifan Model Pembelajaran Daring dalam Perkuliahan Bahasa Indonesia di Perguruan Tinggi. *Indonesian Language Education and Literature*, 3(1), 99-110.

- Mendikbud RI. (2020). Surat Edaran Nomor 3 Tahun 2020 Tentang Pencegahan Coronavirus Disease (COVID-19).
- Milman, N. B. (2015). Distance Education. In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition*. <https://doi.org/10.1016/B978-0-08-097086-8.92001-4>
- Mujib, A. (2015). Pendekatan Fenomenologi dalam Studi Islam. *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, Vol. 6, Desember 2015. Hlm. 167—183.
- Nasrullah, R. (2015). *Media Sosial; Perspektif Komunikasi, Budaya, dan Sosioteknologi*. Bandung: Simbiosis Rekatama Media.
- Oktavian, R. & Aldya, R.F. (2020). Efektivitas Pembelajaran Daring Terintegrasi di Era Pendidikan 4.0. *Didaktis: Jurnal Pendidikan dan Ilmu Pengetahuan*, Vol. 20(2), 129-135. DOI: <https://doi.org/10.30651/didaktis.v20i2.4763>
- Padilla-Diaz, M. (2015). Phenomenology in Educational Qualitative Research: Philosophy Science or Philosophical Science? *International Journal of Educational Excellence*, Vol 1 No. 2. Hlm. 101 —110.
- Pangondian, R. A., Santosa, P. I., & Nugroho, E. (2019). Faktor-faktor yang Mempengaruhi Kesuksesan Pembelajaran Daring dalam Revolusi Industri 4.0. In *Seminar Nasional Teknologi Komputer & Sains (SAINTEKS)* (vol 1, No. 1).
- Ridwan, M., & Damayanti, R. (2022). Dampak Pandemi Covid 19 Terhadap Sosial Budaya dan Gaya hidup Masyarakat: Literature Review. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 5(11), 1319-1328.
- Sanggabuwana, D. & Andrini, S. (2017). Dampak Media Sosial terhadap Usaha Kecil dan Menengah (UKM) Sentra Industri Keramik Plered, Kabupaten Purwakarta. *Jurnal Komunikasi*, Vol. 2(2), 172- 181. DOI: <https://doi.org/10.33376/ik.v2i2.37>
- Sense, A. C. (2009). *Digital Literacy and Citizenship in the 21st Century*. San Francisco: Common Sense Media.
- Setiasih, O., Setiawardani, W., & Yusron, E. (2023, September). Techno-Pedagogy Model Development: Can Techno-Pedagogy Learning Improve Digital Literacy. In *International Seminar and Conference on Educational Technology (ISCET 2022)* (pp. 43-55). Atlantis Press.
- Setiasih, O., Setiawardani, W., & Yusron, E. (2023). Exploring Factors Influencing Student's Learning Difficulties During Pandemic in Indonesia: A Structural Equation Modelling. *European Journal of Educational Research*, 12(1).
- Setiawardani, W., & Robandi, B. (2021). Critical pedagogy in the era of the industrial revolution 4.0 to improve digital literacy students welcoming society 5.0 in Indonesia. *PrimaryEdu: Journal of Primary Education*, 5(1), 107-118.
- Sohn, B. K., dkk. (2017). Hearing The Voices of Students and Teachers: A Phenomenological Approach to Educational Research. *Qualitative Research in Education*, Vol. 6 No. 2, Juni 2017. DOI: 10.17583/qre.2017.2374
- Supratman, L. P. (2018). Penggunaan Media Sosial oleh Digital Native. *Jurnal Ilmu Komunikasi*, Vol. 15(1), 47-60. DOI: <https://doi.org/10.24002/jik.v15i1.1243>
- Tuffour, I. (2017). A Critical Overview of Interpretative Phenomenological Analysis: A Contemporary Qualitative Research Approach. *Journal of Healthcare Communications*. Vol. 2 No. 4, Juli 2017. DOI: 10.4172/2472-1654.100093