

# Teacher Challenges in Developing Digital Literacy in Schools during the Pandemic Era

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# Teacher Challenges in Developing Digital Literacy in Schools during the Pandemic Era

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**Keywords:** Pandemic, School, Teacher, Digital Literacy.

**Abstract:** The pandemic era has accelerated the need for mastery of digital literacy very quickly. The government is currently also aggressively conducting a National Digital Literacy Movement campaign, which includes targeting three basic environments, namely schools, families and communities. To support the creation of literate schools, literate teachers are one of the prerequisites. With the aim of knowing the involvement of teachers as facilitators of literacy education in schools, this research was conducted using a qualitative descriptive method. Initial data collection was carried out by distributing questionnaires to informants which were then deepened through focus group discussions. This study involved Guidance and Counseling teachers from public and private junior high schools in the City of Purwokerto. The results of the study show that teachers still face many challenges and obstacles in developing digital literacy in schools, especially during the pandemic. The digital literacy movement in schools has not involved all teachers in it. Teachers are also still more focused on efforts to improve self-competence in order to keep pace with changes in digital technology in learning and ensure students are able to access digital technology to support learning. Teachers have not directed digital literacy education much to improve students' critical skills.

## 1 INTRODUCTION

The pandemic has brought massive disruption to various sectors of people's lives, including the education sector. All levels of education including junior high school (SMP) were 'forced' to transform to adapt suddenly to learning from home through online media (Basar, 2021). Various obstacles arise in the field, ranging from the problem<sup>5</sup> of the availability of internet access devices, to the level of digital literacy of students and teachers. Students and teachers are required to improve their digital competence quickly. Based on research conducted by Setiansah, Novianti, Rahmawati & Agustina (2021) it is known that children (students) are more comfortable doing knowledge sharing related to internet use with their peers. Friends are seen as able to provide answers and solutions related to technical difficulties encountered when accessing the internet. Besides their friends, they also choose the teacher as a place to ask questions compared to their parents. Asking the teacher is felt to provide more solutions than asking the parents. The teacher becomes a place to ask questions when students experience learning difficulties and also technical difficulties when

accessing digital technology, especially with ICT teachers.

On the other hand, the study also revealed the fact that the students were not too familiar with the terms and concepts of media literacy and digital literacy. The literacy movement in schools is mostly understood as the ability to read books and is programmed through corners or hours of reading books at school. Even though the Ministry of Education and Culture (Kementerian Pendidikan dan Kebudayaan, 2017) has issued a book of materials supporting the National Digital Literacy Movement which states that digital literacy is as important as reading, writing, arithmetic, and other disciplines. The generation that grew up with unlimited access to digital technology has a different mindset from the previous generation. Everyone should be responsible for how to use technology to interact with<sup>3</sup> the surrounding environment. Being digitally literate means being able to process a variety of information, be able to understand messages and communicate effectively with others in various forms. In this case, the form in question includes creating, collaborating, communicating, and working according to ethical rules, and understanding when and how technology

must be used to be effective in achieving goals. This includes awareness and critical thinking about the various positive and negative impacts that may occur due to the use of technology in everyday life.

Silverblatt (in Baran, 2010) mentions that there are seven basic elements of media literacy. Baran (2010) added one more characteristic to make it eight. There are eight basic elements of media literacy:

1. A critical thinking skill enabling audience members to develop independent judgments about media content
2. An understanding of the process of mass communication
3. An awareness of the impact of the media on the individual and society
4. Strategies for analyzing and discussing media messages
5. An understanding of media content as a text that provides insight into our culture and our lives.
6. The ability to enjoy, understand, and appreciate media content
7. Development of effective and responsible production skills
8. An understanding of the ethical and moral obligations of media practitioners.

The eight characteristics of media literacy above seem quite comprehensive and are still relevant to be applied in today's digital era. Especially during the pandemic, various hoax news also experienced a very significant increase. Digital literacy is needed that does not only focus on skills in accessing media but also understands the process, production and also the ethics and morals of media actors so that users are able to be aware of the risks hidden behind various digital content.

When students' understanding of media literacy is still limited, the question that arises then is what about the teachers? Siyamitri (2015) research entitled "Internet Media Literacy Among Vocational High School Teachers in Medan City" reveals the fact that some teacher informants have never heard of the term media literacy, in other words they do not know the definition of media literacy [(Siyamitri, 2015). The informants also did not have knowledge of the internet media industry, the names of the owners of websites on the internet or the rules related to the internet except the ITE Law and the press, but could not explain the contents of the law (Siyamitri, 2015).

Siyamitri's research which reveals the fact that teachers do not understand media literacy is contradictory to the research of Setiansah, Novianti, Rahmawati and Agustina (2021) which states that the teacher is the main place for students to ask questions.

This is where this research becomes interesting and important to do. Teachers are one of the keys to developing digital literacy in schools. Especially when the pandemic continues, mastery of digital literacy is a prerequisite for teachers and students to be able to carry out learning. Digital literacy is also needed to protect students from the overflow of various information and the use of media which has increased sharply during the pandemic.

Based on the description of the background of the problem, this research was conducted to find out how the involvement and challenges of teachers in developing digital literacy in schools during the pandemic period is?

## 2 METHODS

This research was conducted using descriptive method. The informants are 22 (twenty-two) Guidance and Counseling teachers at public and private junior high schools (SMP) in Purwokerto. Initial data was collected through a survey using a google form. Further data mining is carried out through focus group discussions (FGD) as a form of data triangulation. The data analysis technique used is descriptive data analysis technique. Arikunto (1993) states that descriptive data analysis can be done by grouping the data into two, namely qualitative data in the form of words or sentences and quantitative data in the form of numbers. Qualitative data analysis was carried out by coding based on the FGD transcripts, then based on the coding results, categorization and themes were made as research findings. While the analysis of quantitative data is carried out by non-inferential calculations and presented in the form of tables or diagrams/graphs.

## 3 RESULTS

### 3.1 Teacher Involvement in School Digital Literacy

The teachers who were invited as research informants were Guidance and Counseling (BK) teachers. BK teachers were chosen with the consideration that media and digital literacy problems are not only about mastering information and communication technology (ICT) but are also often related to cultural, psychological, motivational, critical thinking skills and so on. So far, in society, including schools in general, when it comes to computers and internet

technology, it is immediately the business of ICT teachers. The limited involvement of non-ICT teachers in digital literacy issues was also stated by an informant who is a BK teacher at SMP Diponegoro 1 Purwokerto who admitted that he was surprised to receive an invitation to the Digital Literacy FGD because usually things related to digital technology are always part of the ICT teacher.

The involvement of teachers in digital literacy programs in schools is also not only related to the ability of access (technical skills) of teachers. But also on the involvement of teachers in ensuring that students can use digital media according to their designation. As stated by an informant from SMP Negeri 2 Purwokerto who admitted that his skills in accessing technology were sometimes inferior to his students. But that didn't make him careless. The behavior of students in using digital media then became the main concern. Differences in the family background of students have brought different media behavior to students. It is not uncommon for students to provide comments or opinions when participating in online learning in an inappropriate way, so it is their duty as a BK teacher to remind and direct students to improve their media behavior.

Slightly different from the conditions in other schools which generally have not made digital media literacy education part of the school curriculum, at SMPIT Al Irsyad Purwokerto, as stated by the BK teacher who attended the FGD, already has a media education program. Media education programs are included in halaqah activities which are carried out regularly every week. In this halaqah, various information and knowledge about media wisdom was conveyed, including dealing with hoax news, information containing elements of SARA, as well as controlling the use of media for online games.

### 3.2 Teacher Challenges in School Digital Literacy Development

Schools are one of the targets of the National Digital Literacy Movement. When schools are able to become drivers of literacy education for students, it is hoped that later it can cause a multiplier effect on families and communities. However, based on the research conducted, it is known that there are a number of obstacles for teachers to be able to be more fully involved in the development of digital literacy in schools. The main obstacle that arises is related to the uneven technical skills of teachers. Young teachers generally claim to have no problems accessing and using digital technology, while teachers over the age of 40 admit that they still

experience stuttering in using digital technology, especially for learning.

Based on the results of this study, it was found that 81.8% of informants said they had never received training related to digital literacy. Only 18.2% stated that they had received digital literacy training from schools. Data about the limited digital literacy training that teachers receive at school was also revealed by an informant from SMP Negeri 1 Purwokerto who said that he had learned to make digital learning media by himself. Meanwhile, an informant from SMP Negeri 2 Purwokerto stated that when teachers had to carry out online learning, ICT teachers in schools provided training to teachers on the use of digital technology for online learning. Because of the urgent need, inevitably all teachers have to learn and adapt, although not all of them can follow quickly. In addition to participating in training from schools, teachers also learn from parties outside the school who offer various trainings, one of which is from an online learning provider, Ruang Guru.

Another obstacle faced by teachers in developing digital literacy in schools is the diverse condition of students. Both in terms of family background, economy, and their behavior. One informant stated that the change in the status and admission system of the International Standard School Design (RSBI) to the Zoning system also had a significant influence on the condition of students who became very diverse, both in terms of academic and socio-economic abilities. When they were still in RSBI status, teachers did not experience any difficulties because as a favorite school, the majority of students were students with good academic and socio-economic abilities. However, after the zoning system was implemented, student conditions could vary with a fairly large gap.

The very diverse conditions of students require teachers to adapt to the conditions of students. The teacher's priority is to ensure that all students can follow online learning well. As one informant said, when a student is unable to participate in online learning, the teacher must come to the student's house. In such conditions, teachers are often unable to convey information or other materials outside of lessons such as the Information and Electronic Transactions Law (ITE), how to report hoax news, and so on. On the other hand, in schools that have the majority of students with good economic abilities, so that they are not constrained by internet access, the obstacle faced by teachers is the number of students who are excessively attached to smartphones or other digital devices, especially to play online games. At this point, the difference in the pattern of regulating



the use of digital devices at school and at home is also seen as a separate obstacle for teachers in developing digital literacy in schools.

## 4 DISCUSSION

The low involvement of teachers outside of ICT teachers in digital literacy programs in schools cannot be separated from the understanding that digital literacy is only limited to mastering digital technology. This is not surprising because most people still understand digital literacy in a narrow sense just as the ability to operate a computer, access information from the internet or in other words the ability to master hardware and software from digital technology. In fact, if you refer to the statement from the initial [5], namely Paul Gilster (in Shopova, 2014) he states that one should not consider digital literacy simply as "a book about how to get around the Internet". Moreover, the ability to evaluate and interpret the information is essential. What matters is that through digital literacy one acquires basic thinking skills and core competences without which he could not orientate and perform tasks in an interactive environment.

On the other hand, based on research results, it is known that teachers have not been able to involve and develop digital literacy which is not just technical mastery. Eshet in Yustika & Iswati (2020) emphasizes that digital literacy should be more than the ability to utilize various digital sources effectively, but rather a broader concept. Digital literacy is also described as a form of certain ways of thinking (multi construction hypothesis) in utilizing the digital world. Thus, interaction in digital media does not only require technical ability to access technology but also understands the content, active and interactive functions of producing messages (Yustika & Iswati, 2020).

As stated by the informants, the development of digital literacy in schools cannot be carried out until the stage of digital literacy in a broad sense, until it meets the eight criteria as stated by Baran (2010) that digital literacy should include:

1. A critical thinking skill enabling audience members to develop independent judgments about media content
2. An understanding of the process of mass communication
3. An awareness of the impact of the media on the individual and society
4. Strategies for analyzing and discussing media messages

5. An understanding of media content as a text that provides insight into our culture and our lives.
6. The ability to enjoy, understand, and appreciate media content
7. Development of effective and responsible production skills
8. An understanding of the ethical and moral obligations of media practitioners.

However, even though it is not perfect, and has not called it a form of implementing digital literacy education, teachers have actually tried to implement the digital literacy criteria through various efforts. In addition to trying to learn to use digital technology and producing digital content, especially for learning, the teacher also always reminds students of the negative impact of media content, conveys that students are not easily believed by various mass media shows, invites students to discuss through halaqah activities at school so that students can control and regulate the use of their gadgets. In schools that have students with high access to digital media, such as at SMPIT Al Irsyad and SMP Kristen, teachers have also begun to invite students to develop awareness of the impact of the media to the individual and society. If it is elaborated, then one of the few aspects that are still not mastered by the teacher so that the transfer of knowledge to students has not been carried out is the teacher's understanding of the production process in mass media and the understanding of the ethical and moral aspects of media workers.

Although there are a small number of teachers who have started to develop digital literacy which is in line with Silverblat and Baran's concept of digital literacy, the pandemic conditions that force digital transformation in schools very quickly, have made most teachers, especially those from the age group over 40 years old, still experience stuttering in their classrooms adapt to these very fast changes. Digital technology replaces the entire learning process at a time when teachers and students are not really ready to migrate. As a result, in most schools, the focus of attention on developing digital literacy in schools is still more focused on efforts to master technology and its use to support the learning process in the classroom.

The attention of teachers in schools who are more preoccupied with trying to get students to access learning through digital media, actually doesn't just happen during the pandemic. Previous research (Setiansah & Novianti, et.al., 2021) which revealed the fact that students are not familiar with the concept of digital literacy in a broad sense shows that the

priority of teachers in schools is more aimed at encouraging students to be digitally literate in the context of mastering technology. Related to this, Borthwick and Hansen (in Falloon, 2020) say that traditional approaches to developing digital capabilities in teacher education have focused on promoting students' 'digital literacy'. Digital literacy is a set of skills to access the internet, find, manage and edit digital information; join in communications, and otherwise engage with an online information and communication network.

The process of developing digital literacy in schools which is more focused on increasing students' access and understanding of learning materials is certainly a natural thing considering that the school's core business is in the field of education. So do not be surprised if various studies on online learning during the pandemic reveal many obstacles such as the presence of students who do not have a device, problems with internet connections, so they have to borrow their parents' smartphone so that parents can only accompany them at night because during the day they must (Anugrahana, 2020).

However, it should be noted that the success of online learning does not depend solely on the problem of access or solely because of problems with ownership of the device or internet connection. A number of cultural constraints as found in this study should still be a concern for teachers. The cultural constraint in question is about the behavior of using digital media. It was revealed from one of the informants in this study who said that in his school students relatively did not face obstacles in terms of internet access. Students receive sufficient facilities from their parents, both in terms of equipment ownership and quota. However, this does not guarantee the formation of good digital literacy in students. In the condition that all facilities are met, the challenge arises from the behavior of using online games by students which is difficult to control. The pandemic period that limits students' activities outside the home and also limits students physically and socially from their friends makes online games and the use of smartphones in general become students' escape to connect them with the world outside their homes. When students forget the time in using their smartphones, it can be said that they have high access skills, but do not have adequate digital literacy.

The junior high school students faced by the teachers who became informants in this study were teenagers who generally had not been able to control themselves well. According to Latifa<sup>2</sup> Setiyawan, Subchi, Nahartini & Durachman (2018) teenagers are generally less able to control themselves in playing

online games due to the growing adolescent period, the search for identity, and the difficulty in interpersonal relationships. While on the other hand, teenagers feel that it is easier to develop a close relationship with others in the virtual world than to communicate directly in the real world. In these conditions, the ability to self-control and also mentoring from parents becomes important as expected by one of the teachers who face obstacles like this. Engels, & F<sup>2</sup>kenaur (in Latifa & Setiyawan, et.al, 2018) say that the parenting pattern affects the level of child self-control. Other results show that families who apply authoritative parenting will make children have a high level of self-control, while children who reject authoritarian parenting make the child has a low level of self-control. Other research indicates that ineffective parenting will tend to produce low self-control. In other words, poor parenting will have an impact on low self-control and will directly lead to deviations in child behavior, including game addict.

Therefore, once again, digital literacy in schools, teachers should no longer only focus on how to encourage students to be able to access and understand learning materials directly but also strive for students to have a broader, creative way of thinking, able to develop a culture of digital media that is can further increase the benefits of digital media for themselves<sup>10</sup> and their environment and understand ethics in the use of digital media itself.

## 5 CONCLUSIONS

<sup>10</sup> The involvement of teachers in the development of digital literacy in schools during the pandemic still faces various challenges related to themselves and aspects from outside themselves. The challenge related to the teachers themselves is the inequality of mastery of digital technology they have. This is due to the availability of training and the ability to follow changes that teachers do not have equally. Another challenge is the diversity of conditions students face, both economically, socially, and culturally using digital technology, so teachers must take various ways to ensure students can access and use digital technology wisely. Apart from the challenges that arise from within and outside the teacher, the biggest challenge for teachers in developing digital literacy in schools is to equalize the perception that digital literacy is not only about mastering technology but also concerning emotional, sociological and critical thinking skills so that students and teachers can participate as leaders, digital citizens to the fullest.

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