

Survey of Digital Literacy Competencies of Teachers at SMPN 3 Jati Agung South Lampung in Overcoming Disinformation and Misinformation

ABSTRACT

The rapid advancement of digital technology has led to widespread use of gadgets across various age groups, from children to adults. The explosion of information on the internet poses significant challenges related to the dissemination of false information (disinformation) that can influence public perception. Digital literacy is a crucial skill that empowers individuals to critically filter and comprehend messages received through digital media. This study aims to measure the level of digital literacy competencies among teachers at SMPN 3 Jati Agung Lampung Selatan in addressing disinformation, including hoaxes and misinformation. A quantitative descriptive approach was employed, utilizing data collection techniques such as observation, surveys, interviews, literature review, and documentation. The survey results indicate that the majority of teachers possess very high digital literacy competencies across eight assessed dimensions, positively impacting their role as a safeguard in education. However, the e-safety aspect still requires further attention concerning secure use of digital technology. The study concludes that enhancing digital literacy competencies, particularly in digital safety, is essential for teachers to effectively utilize technology in teaching and to prevent the spread of disinformation.

Keywords: Digital literacy competencies, disinformation, information

INTRODUCTION

The advancement of information and communication technology (ICT) has driven the formation of global interconnectivity among individuals, nations, and economic systems. This interconnectivity creates a new perspective and demands a shift in how society perceives its role, particularly in a global context. Today, people

live in close connection and are part of a broader global community. The most constructive response to this reality is active participation as global citizens. The concept of the *Global Citizen* views every individual as a member of the world community who possesses collective awareness, concern for global issues, and an ability to embrace cultural diversity. Global citizens are also expected to promote social justice, environmental sustainability, and to take responsibility in addressing global challenges. This role is becoming an important identity for Indonesian youth, particularly adolescents, as they face the future.

The development of ICT in Indonesia should be utilized by young people to strengthen their competencies as active learners in facing global competition and challenges. However, in practice, several issues persist, such as:

1. The proliferation of non-educational digital content that spreads negative messages.
2. Children and adolescents being particularly vulnerable to the negative impacts of the internet, such as digital fraud and addiction.
3. Persistent violations of ethics in the presentation and consumption of information.
4. The internet is still perceived as a novelty by some segments of society, leading to a risk of overuse and addiction.
5. Ongoing illegal activities in cyberspace due to lack of adequate regulation.

These negative phenomena have led to a sense of resistance toward the internet among certain groups. Nevertheless, limiting access is not a wise solution, considering the internet's strategic role in supporting technological adaptation and improving quality of life. Therefore, systematic efforts are needed to enhance knowledge and awareness regarding safe, healthy, and productive internet use, particularly in educational settings.

The Indonesian government has responded positively to digital developments through various policies and programs. One strategic initiative is the launch of the National Digital Literacy Movement through the “Indonesia Makin Cakap Digital” program by the Ministry of Communication and Information Technology (Kominfo). This program emphasizes the importance of increasing digital literacy capacity across all segments of society, including in educational institutions. One of the biggest challenges in improving digital literacy at the junior high school level comes from within the schools themselves. The active role of teachers, students, and the academic community is essential to cultivate a culture of digital literacy.

SMPN 3 Jati Agung, located in South Lampung Regency, is one of the junior secondary schools that has integrated internet technology into its learning processes. Teachers are already familiar with internet use, including utilizing social media as an educational tool. The government, through the Directorate General of Informatics Applications at Kominfo, has also initiated programs to provide internet access for schools and communities as part of efforts to equalize digital access. In line with these policies, it is essential for teachers to possess adequate digital literacy competencies—not only as users, but also as educators capable of guiding students in using technology wisely. This effort is expected to support the development of resilient, adaptive, and digitally skilled human resources in Indonesia in facing the global era.

RESEARCH METHOD

This study adopts a descriptive quantitative approach, employing a survey method through the distribution of questionnaires to respondents, as well as content analysis techniques to collect and categorize specific symbols—such as

terms or concepts—based on defined criteria. The analytical approach used is semantic content analysis by denotation, which focuses on the frequency of appearance of certain concepts or objects in the data.

The population in this study consists of all teachers at SMPN 3 Jati Agung, South Lampung Regency. The sample was selected using a random sampling technique drawn directly from the population. The total number of respondents involved in the study is 50. However, it should be clarified that the actual respondents are active teachers teaching at SMPN 3 Jati Agung, South Lampung.

Operational Variables

This study refers to eight dimensions of digital literacy as the main variables used to measure teachers' digital competencies. Each dimension is described through relevant indicators as follows:

Table 1. Dimensions and Indicators of Digital Literacy

Dimension	Indicator
Functional Skills and Beyond	- Proficiency in Information and Communication Technology (ICT) skills.
Creativity	- Ability to create products or outputs in various formats and models using digital technologies. - Capacity for creative and imaginative thinking, including planning, content development, idea exploration, and control over the creative process.
Collaboration	- Ability to actively participate in digital spaces. - Skill in articulating and negotiating ideas with others in group settings.
Communication	- Ability to communicate effectively through digital media. - Capability to understand audience needs and anticipate the impact of content creation.
The Ability to Find and Select Information	- Skill in searching for and critically selecting relevant information.

Critical Thinking and Evaluation	- Capacity to analyze, evaluate, and think critically when engaging with information.
Cultural and Social Understanding	- Awareness and sensitivity to social and cultural contexts in the digital environment.
E-Safety	- Ability to ensure personal safety and security while exploring, creating, and collaborating in digital spaces.

Data Analysis Technique

The data analysis technique employed in this study is descriptive statistics, following a modified method as proposed by Feliska (2019). The data are presented in tabular form, displaying the statistical values obtained. For the assessment criteria, the study utilizes the **Criterion-Referenced Assessment (CRA) Type II** with percentile score categories, as detailed below:

Table 2. Percentile Scores Based on CRA Type II

Percentile Score	Category
81% – 100%	Very High
66% – 80%	High
56% – 65%	Moderate
46% – 55%	Low
0% – 45%	Very Low

RESULTS AND DISCUSSION

The high intensity of social media usage among communities with relatively low literacy levels has become one of the primary contributors to the widespread dissemination of disinformation. Disinformation refers to the deliberate act of creating and spreading false or misleading information. This phenomenon has led to various social issues, such as the spread of fake news, slander, incitement, and hoaxes, all of which have the potential to incite public unrest and threaten national unity (Azwar et al., 2022).

In response to this issue, the Indonesian government has introduced several regulations aimed at curbing the spread of disinformation on social media, which now serves as a new form of public space. A key regulatory framework is Law No. 11 of 2008 on Electronic Information and Transactions (ITE), which was later revised through Law No. 19 of 2016. To further implement these legal mandates, the government also established the National Cyber and Crypto Agency (BSSN) in 2017 through Presidential Regulation No. 53 of 2017, tasked with safeguarding national cybersecurity.

Survey Analysis of Digital Literacy Competencies

This study measures eight dimensions of digital literacy competencies based on modern digital skill indicators. One of the dimensions analyzed is 1) **Functional Skill and Beyond**, which encompasses the operational ability to use digital technologies, ICT (Information and Communication Technology) skills, awareness of copyright, and the ability to produce digital outputs.

Table 4.1. Achievement Level in Functional Skill and Beyond Dimension

Measured Aspect	Majority Achievement	Percentage
ICT Skills Proficiency	Very High	97.8%

Based on Table 4.1, the results indicate that the achievement level in the **Functional Skill and Beyond** dimension is very high. This suggests that the majority of teachers possess strong proficiency in Information and Communication Technology, demonstrating effective computer operations and robust internet-related ICT skills.

2) Creativity

The **Creativity** component pertains to the ways in which individuals think, construct, and share knowledge by leveraging digital technologies. In this context, creativity encompasses two main aspects:

Product Creation: The ability to generate products or outputs in various formats and models using digital technology.

Creative and Imaginative Thinking: This involves planning, developing content, exploring innovative ideas, and managing the creative process effectively.

These components are essential for educators, as they not only facilitate the production of varied digital content but also foster an environment where innovative pedagogical strategies can be formulated and shared.

Table 4.2 Creativity Aspect

Measured Aspect	Majority Achievement	Percentage
Ability to create products in various formats and models using digital technology	Very High	95.7%
Ability to think creatively	Very High	100%

Based on Table 4.2, the achievement in the **Creativity** aspect is classified as **very high**. This indicates that teachers at SMPN 3 Jati Agung demonstrate strong digital creativity, including the ability to plan, develop content, explore ideas, and manage the creative process effectively.

3) Collaboration

The **Collaboration** component emphasizes individual participation in dialogue, discussion, and the construction of shared understanding. It includes:

- The ability to actively participate in digital spaces;
- The capacity to articulate and negotiate ideas with others in a group setting.

These skills are crucial in fostering teamwork and collaborative problem-solving in digital environments, particularly for educators who are expected to engage both with peers and students through various online platforms.

Table 4.3: Collaboration Aspect

Measured Aspect	Majority Achievement	Percentage
Ability to participate in digital spaces	Very High	100%
Ability to explain and negotiate ideas with others in a group	Very High	97%

4) Communication

Table 4.4: Communicative Aspect

Measured Aspect	Majority Achievement	Percentage
Ability to communicate via digital technology	Very High	100%

Based on Table 4.4, the achievement in the communication aspect is very high. The teachers are already well-connected to the digital world, such as using search engines like Google and various social media platforms like Facebook, Twitter, Instagram, TikTok, WhatsApp, and others. They are also able to

understand and anticipate their audience's needs and the potential impact when creating digital content.

5) The Ability to Find and Select Information

Table 4.5: Information Literacy Aspect

Measured Aspect	Majority Achievement	Percentage
Ability to find and select information	Very High	97.8%

Based on Table 4.5, the teachers demonstrate a very high ability to search for and evaluate information. This indicates their capability in countering **misinformation** (incorrect information believed to be true) and **disinformation** (false information deliberately created to mislead the public for specific agendas).

6) Critical Thinking and Evaluation

Table 4.6: Critical Thinking Aspect

Measured Aspect	Majority Achievement	Percentage
Ability to contribute, analyze, and enhance critical thinking when encountering information	Very High	97.4%

Based on Table 4.6, the ability to think critically and analyze information is very high. This reflects the teachers' awareness and understanding in processing digital information thoughtfully, helping them filter out disinformation and misinformation effectively.

7) Cultural and Social Understanding

Table 4.7: Cultural and Social Understanding Aspect

Measured Aspect	Majority Achievement	Percentage
Alignment with social and cultural understanding	Very High	97.8%

Based on Table 4.7, the teachers display a very high level of cultural and social understanding, reflecting their ability to align digital interactions with the values and norms of the society in which they live.

8) E-Safety

Table 4.8: E-Safety Aspect

Measured Aspect	Majority Achievement	Percentage
Ability to ensure safety while exploring, creating, and collaborating with digital technologies	Low	55%

Based on Table 4.8, the achievement in the e-safety aspect is relatively low. This refers to the lack of proficiency in ensuring safety when using digital platforms and social media. Inadequate digital safety skills can expose individuals and institutions to threats such as cybercrime. According to monitoring by the Ministry of Communication and Informatics (Kominfo), hoax news cases continue to rise annually in Indonesia. Their collaboration with Katadata Insights Center and SiCreativity (Cahyadi, 2020) shows that 30% to 60% of Indonesians are prone to believing in hoaxes when accessing the internet.

CONCLUSION

Based on the measurement of the eight dimensions of digital literacy competencies, it was found that the majority of teachers at SMPN 3 Jati Agung, South Lampung, demonstrated a very high level of digital literacy. These findings indicate that the teachers possess adequate digital skills to navigate the information landscape, especially in responding to the widespread issue of disinformation and misinformation in digital spaces.

The results also underscore the teachers' readiness to take on their roles as facilitators and educators, guiding students to become critical and responsible digital citizens. However, the survey also reveals a notable weakness in the area of e-safety. Limited understanding and skills in maintaining digital safety can pose risks for both individuals and educational institutions.

Therefore, it is crucial to prioritize the enhancement of teachers' digital safety competencies through systematic and ongoing training programs. Such efforts are essential to creating a safe, adaptive, and resilient educational environment in the face of digital era challenges.

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