

DIGITAL LITERACY AS A CATALYST FOR ENHANCING PROFESSIONALISM AMONG GUIDANCE AND COUNSELING TEACHERS IN THE DIGITAL ERA

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ABSTRACT

Fundamental changes in education driven by digitalization demand that teachers, including guidance and counseling teachers, possess strong digital literacy to remain professionally competent. This study aimed to analyze the level of digital literacy mastery among guidance and counseling teachers at SMP Negeri 3 Ungaran and to evaluate how these skills support their professional competence. Employing a quantitative descriptive approach with saturated sampling, data were collected from all five guidance and counseling teachers at the school using questionnaires, semi-structured interviews, and documentation studies. The results revealed that the overall digital literacy mastery was high, with Internet searching (75%) and Content evaluation (64%) being the strongest aspects, while Hypertextual navigation and Knowledge assembly both fell into the medium category (59%). These findings suggest that while digital literacy significantly enhances the professional competence of teachers, particularly in accessing and evaluating information, there are still gaps in advanced navigation and integrative knowledge skills—especially among older teachers. The research contributes practical and theoretical insights by highlighting the importance of targeted digital literacy training and adaptive policy development to optimize counseling services. This study is beneficial for education stakeholders seeking to design effective training programs and improve digital integration in school counseling. Future research is recommended to involve larger samples, apply mixed-method approaches, and examine additional dimensions such as digital ethics, wellbeing, and communication skills to further strengthen the digital competence of educators.

Keywords: Counselor, Digital Literacy, Guidance, Professional Competence, Secondary School

INTRODUCTION

Massive changes happening in many areas of life, like education, mean teachers need new skills that fit the digital age. One important skill is digital literacy, which means being able to find, evaluate, use, and create information through digital tools in a smart and ethical way. According to UNESCO, digital literacy is about a person's ability to safely and effectively get, organize, use, understand, and make information with digital technology (Law, 2018). The idea of digital literacy was first introduced by Paul Gilster. He explained that digital literacy is the ability to understand and use information that is available in different digital formats. Gilster gave his explanation of what digital literacy means, saying that it involves being able to work with information in various digital forms. According the below sentences, he said:

"Digital literacy is the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers". (Gilster & Glistler, 1997)

According to this theory, digital literacy is the ability to understand and use information in various formats from a wide range of digital sources accessed through computer devices. It includes several key skills, such as locating information online (internet searching), moving through linked digital content (hypertextual navigation), assessing the quality and reliability of information (content evaluation), and integrating knowledge from different digital materials (knowledge assembly). These aspects illustrate that digital literacy goes beyond technical use, involving critical and reflective thinking. In educational settings, digital literacy plays a vital role, especially in supporting technology-based guidance services where both educators and students are expected to engage effectively in digital environments.

In the context of education, mastery of digital literacy is not just a technical skill, but includes cognitive and affective abilities that support the professionalism of teachers, including school counselors or usually

we called as guidance and counseling teachers. In the 21st century, they are required to always improve their quality, ability and self-transformation in utilizing digital technology (Sabir et al., 2023). Teachers have demands on mastering digital literacy before applying it to students. On the other hand, there are many phenomena regarding educators who lack mastery of digital technology, especially those who are not creative and innovative in utilizing it (Yuliawati et al., 2021).

Professional competence is the main dimension that should be held by school counselor to provide effective services. Competence is a term derived from English, namely "competence" which has the meaning of expertise and capacity. McClelland explained that competence is a fundamental characteristic to be possessed by individuals that has a direct influence on excellent performance (McClelland, 1973). Another opinion is also explained by Spencer competence is a basic characteristic of person that is directly related to effective performance and or excellence in a certain job or situation based on the 2 expert opinions, it is known that competence is a basic characteristic that correlates with superior performance in a certain job (Spencer & Spencer, 2008). The term "professional" originates from the word "profession," which refers to a type of occupation that demands specific expertise, a strong sense of responsibility, and commitment to the duties involved. In the context of guidance and counseling, professional competence refers to the counselor's ability to carry out their roles and responsibilities effectively and in accordance with established professional standards. This includes not only fulfilling the duties of an educator but also meeting the expectations of a school counselor as outlined in the prevailing regulations. A professionally competent guidance and counseling teacher is expected to demonstrate mastery of counseling theories and practices, apply them appropriately in school settings, and maintain ethical conduct while supporting students' academic, personal, and social development.

In the junior high school unit or usually known as SMP (Sekolah Menengah Pertama), counselors play a crucial role in fostering students from personal, social, academic, and career aspects. Professional competence includes the ability to assess, program development, service implementation, and evaluation comprehensively. In this digital era, digital literacy is the main level for school counselors to carry out these roles more adaptively and effectively. As a school counselors in guidance and counselling education, mastery of digital literacy is an urgency in developing quality human resources to implement effective and innovative guidance and counseling services in schools. In fact, guidance and counseling teachers experience obstacles in utilizing technology and information in their work tasks. In fact, many of them are still use the traditional method of using paper in providing assessments, then neglect to make evaluation reports for the guidance and counseling program, and others. This is because they usually do not have adequate technology and information competencies (Cahyawulan et al., 2019).

Recent studies show that digital literacy has a positive correlation with improving teachers' professional competence. For example, Lusiani (2024) found that digital literacy and intrinsic motivation significantly affect teacher performance and professionalism. Meanwhile Gusti (2024) revealed that the benefit of technology media by school counselors as the teacher can increase the flexibility and effectiveness of services. However, a number of other studies show that there is an imbalance in digital literacy mastery, especially among teachers with older ages (Hermawan et al., 2019), or in schools with limited facilities. The problems in this article are formulated as follows: What is the level of mastery of digital literacy for guidance and counseling teachers at SMP Negeri 3 Ungaran, and the extent to which this mastery supports the professional competence of school counselor. This study aims to analyze the role of digital literacy in supporting the professional competence of guidance and counseling teachers at SMP Negeri 3 Ungaran, emphasizing the role of technology in the planning and execution of guidance and counseling services. The context of the study focused on the education unit at the SMP Negeri 3 Ungaran level, with the main analysis unit being an active guidance and counseling teacher who was on duty at the school. Structurally, this article is divided into five parts. The first part presents an introduction that includes the background, problems, and objectives of the study. The second part reviews the literature review and theoretical foundations regarding digital literacy and the professional competence of school counselors. The third part describes the research method. The fourth part presents the findings and discussion of the results of field findings and practical recommendations for the development of professional competencies of guidance and counseling teachers with mastery of digital literacy

METHOD

This study uses a quantitative descriptive approach to objectively describe the level of mastery of digital literacy of guidance and counseling teachers and their relationship in supporting professional competence. This approach was chosen because it is able to present measurable and structured data, making it relevant to evaluate concrete and measurable variables. The subjects in this study are all school counselor teachers at SMP Negeri 3 Ungaran as many as 5 person, using saturated sampling techniques, namely the entire population is used as a sample because the quantity of guidance and counseling teachers at the school is restricted and remains at a level that enables comprehensive research.

Data were collected through three main techniques, namely closed questionnaires, semi-structured interviews, and documentation studies. The instrument is compiled based on digital literacy indicators developed from Gilster theory, namely 4 core competencies that need to be possessed, namely *Internet searching*, *Hypertextual navigation*, *Content evaluation*, and *Knowledge assembly*, combined with professional competency indicators of school counselor teachers. These aspects are compiled based on a descriptor that integrates the mastery of digital literacy with the professional competence of guidance and counseling teachers shown in the following table.

Table 1. Aspects of mastery of digital literacy with the professional competence of guidance and counseling teachers

Aspects	Description
Internet search	Guidance and counseling teachers possess the capability to look for information online through search engines and conduct several activities within it
Hypertextual navigation	Guidance and counseling teachers possess an understanding of hypertext and hyperlinks, as well as insights into the distinction between studying textbooks and navigating the internet. Understanding how websites function encompasses knowledge of bandwidth, HTTP, HTML, and URLs, along with the capacity to grasp the features of website pages
Content evaluation	Guidance and counseling teachers can tell the difference between display content and information content. They look at how users understand the layout of a webpage they visit. They check the background of online information, which means they want to find out who created the information and where it came from. They examine website addresses to understand different domains linked to specific organizations or countries. They also look at the actual content on the webpage and know the common questions that come up in news or discussion groups.
Knowledge assembly	Guidance and counseling teachers can look for information online, create their own newsfeed, or get the latest news updates by joining and subscribing to newsgroups, mailing lists, or other discussion forums that focus on specific topics depending on their needs or issues. They can analyze the information they find, use different types of media to check if the information is accurate, and organize the sources they get from the internet.

According to the Peraturan Menteri Pendidikan Nasional Republik Indonesia Number 27 of 2008, the professional competencies of guidance and counseling teachers are to master the concept and praxis of assessment to understand the conditions, needs, and problems of counseling, master the theoretical framework and praxis of guidance and counseling, design guidance and counseling programs, implement comprehensive guidance and counseling programs, assess the process and results of guidance and counseling activities, have awareness and commitment to professional ethics, as well as master the concept

and practice of research in guidance and counseling. Each statement in the questionnaire uses a five-point Likert scale, with options: Highly Unsuitable (1), Non-Conforming (2), Neutral (3), Conforming (4), and Conforming (5) as shown in Table 2.

Table 2. Likert Scale Table

Information	Score Weights
Highly Unsuitable (STS)	1
Not Suitable (TS)	2
Neutral (N)	3
Conform (S)	4
Highly Appropriate (SS)	5

Based on the weight of the score above, the researcher provides a category of assessment of the average result of the total score using descriptive statistical analysis by percentage. So that then the ideal average (mean) can be obtained as follows

Table 3. Table Categorization of average interval percentage

Information	Interval
Very low	1-20
Low	21-40
Medium	41-60
High	61-80
Very high	81-100

This questionnaire has gone through a content validity process by education and learning technology experts to ensure the internal consistency of the instrument. In addition to the questionnaire, semi-structured interviews were conducted with all counselor at the school, to deepen the quantitative findings. This technique allows researchers to obtain contextual information about how digital literacy is implemented in real practice. Documentation, such as reports of guidance and counseling activities, and recordings of digital media use, were also analyzed to reinforce and confirm data from questionnaires and interviews.

Data analysis was carried out in a quantitative descriptive manner, by calculating the average, frequency distribution, and percentage to determine the level of mastery of digital literacy. The data triangulation technique is used to test the validity of findings, namely by comparing the results of questionnaires, interviews, and documentation, so that more credible and comprehensive results are obtained. With this combination of techniques, the method used is believed to be valid and reliable in presenting a complete picture of the digital literacy of guidance and counseling teachers and their contribution to their professional competence.

RESULTS AND DISCUSSION

Based on data analysis with the help of Microsoft Excel software, the results of each assessment of each aspect of digital literacy mastery with the professional competence of guidance and counseling teachers owned by teachers at SMP Negeri 3 Ungaran were obtained. Before elaborating further, here is the calculation of the average score on the total aspect. The results of the calculation of the overall aspect of mastery of digital literacy with professional competence in school counselor at SMP Negeri 3 Ungaran, which is known to be 64%, are in the high category. It is presented in the table below.

Table 4. Average calculation table of the overall percentage of the aspect

Aspects	Average percentage of each aspect
<i>Internet search</i>	75%
<i>Hypertextual navigation</i>	59%
<i>Content evaluation</i>	64%
<i>Knowledge assembly</i>	59%
Average overall percentage	64%

Based on the results of data collection in the form of questionnaires from guidance and counseling teachers at SMP Negeri 3 Ungaran, it is described based on 4 aspects, namely *Internet searching*, *Hypertextual navigation*, *Content evaluation*, and *Knowledge assembly*. From these 4 aspects, a research instrument was produced as many as 42 statements with favorable and unfavorable provisions. The results of the score calculation prove that the mastery of digital literacy with the professional competence of school counselor based on the aspect of *Internet searching* owned by guidance and counseling teachers at SMP Negeri 3 Ungaran, from 6 items of statement instruments, it is known that the results show that they are in the High category. with an average of 22.4 and a percentage of 75%. The High category itself is a category with a score percentage range of 61% to 80%.

Table 5. Average table and percentage of *Internet searching* aspects

Respondents	Total	Percentage
Guidance and counselling teacher 1	22	73,3%
Guidance and counselling teacher 2	23	76.6%
Guidance and counselling teacher 3	22	73,3%
Guidance and counseling teacher 4	23	76.6%
Guidance and counseling teacher 5	22	73,3%
Total	112	
Average	22,4	
Percentage	75%	

Then the results of the score calculation prove that the mastery of digital literacy with the professional competence of school counselor based on the aspect of *Hypertextual navigation* owned by guidance and counseling teachers at SMP Negeri 3 Ungaran, from 11 items of statement instruments, it is known that the results show that they are in the Medium category. With an average of 35.6 total scores and a percentage of 59%. The Medium category itself is a category with a score percentage range of 21% to 40%

Table 6. Average table and percentage of *Hypertextual navigation* aspects

Respondents	Total	Percentage
Guidance and counselling teacher 1	33	55%
Guidance and counselling teacher 2	37	61.6%
Guidance and counselling teacher 3	38	63,3%
Guidance and counseling teacher 4	35	58.3%
Guidance and counseling teacher 5	35	58,3%
Total	178	
Average	35,6	
Percentage	59%	

In the subsequent calculation, the results of the score calculation were obtained which proved that the mastery of digital literacy with the professional competence of school counselor based on the aspect of *Content evaluation* owned by guidance and counseling teachers at SMP Negeri 3 Ungaran, from 15 items of statement instruments, it is known that the results show that they are in the High category. With an average of 48 total scores and a percentage of 64%. The High category itself is a category with a score percentage range of 61% to 80%.

Table 7. Average table and percentage of *Content evaluation* aspects

Respondents	Total	Percentage
Guidance and counselling teacher 1	42	57,3%
Guidance and counselling teacher 2	48	64%
Guidance and counselling teacher 3	50	66,6%
Guidance and counseling teacher 4	45	60%
Guidance and counseling teacher 5	54	72%
Total	240	
Average	48	
Percentage	64%	

Then the results of the score calculation were also obtained which proved that the mastery of digital literacy with the professional competence of school counselor based on the aspect of *Knowledge assembly* owned by guidance and counseling teachers at SMP Negeri 3 Ungaran, from 9 items of statement instruments, it was known that the results showed that they were in the Medium category. With an average of 26.6 total scores and a percentage of 59%. The Medium category itself is a category with a score percentage range of 21% to 40%.

Table 8. Average table and percentage of *Knowledge assembly* aspect

Respondents	Total	Percentage
Guidance and counselling teacher 1	22	48,8%
Guidance and counselling teacher 2	27	60%
Guidance and counselling teacher 3	29	64,4%
Guidance and counseling teacher 4	23	51.1%
Guidance and counseling teacher 5	32	71,1%
Total	133	
Average	26,6	
Percentage	59%	

In addition, based on the results of interviews with 5 guidance and counseling teachers at the junior high school, it is known that school counselor do not fully have the achievement of the *Hypertextual navigation* aspect, which is still not fully understood the latest innovations and features that are rarely used on the internet. Then they have not fully achieved the *Knowledge assembly* aspect, such as not fully understanding the policy of using AI and the use of learning with social media for elderly guidance and counseling teachers. They have not fully achieved the *Internet searching* aspect, namely some school counselor tend to use conventional methods and use physical information materials in providing services to students, because they are considered more commonly used.

This study aims to analyze the level of digital literacy mastery of guidance and counseling teachers at SMP Negeri 3 Ungaran and the extent to which this mastery supports their professional competence. This study is important because in the digital era, school counselor are required to be able to integrate technology in the planning and implementation of effective and adaptive counseling services. Digital literacy is not only a technical skill, but also cognitive and affective skills that support the professionalism of a guidance and counseling teacher.

This research contributes to the development of literature on the relationship between digital literacy and the professional competence of school counselor, especially in the context of junior high schools or known as SMP (Sekolah Menengah Pertama). The results show that of the four aspects of digital literacy, two aspects show the "high" category, which can be followed by *Internet searching* with a percentage of 75% and *Content evaluation* with a percentage of 64%. While the other two aspects are in the "medium" category, they can be described *Hypertextual navigation* with a percentage of 59% and *Knowledge assembly* with a percentage of 59%.

This finding generally indicates that guidance and counseling teachers at SMP Negeri 3 Ungaran have high digital literacy skills, this is evidenced by an average overall percentage of aspects of 64% which are included in the high category, especially in searching for information (*Internet searching*) and evaluating digital content (*Content evaluation*). This means they are able to sift through relevant and accurate information to support the provision of Guidance and Counselling services. These findings make both practical and theoretical contributions. Practically, these results can be the basis for developing the concept of strengthening digital literacy based on teachers' real needs. Meanwhile, theoretically, this research enriches empirical evidence that digital literacy plays an important role in supporting teacher professionalism. This is in accordance with the title of the research which states that mastery of digital literacy supports the professional competence of school counselor.

However, there are still weaknesses in the aspects of *Hypertextual navigation* and *Knowledge assembly*. The school counselor do not seem to be fully proficient in navigating various types of digital information in the form of hyperlinks and compiling knowledge integratively from various digital sources. This can be an obstacle in creating data-based and collaborative services digitally, especially in the development of online platform-based programs.

These findings are consistent with the results of research by Ristianti et al., (2022) and Wiguna (2023), which show that teachers' digital literacy tends to be in the medium to high category, with the need for strengthening, especially in the aspects of critical thinking and digital integrative. Similarly, Lusiani (2024) stated that digital literacy has a positive effect on professional competence and teachers' work motivation. In research by Gusti (2024) it was found that the active use of digital technology in guidance and counseling services is able to improve the quality of communication and service efficiency. This can be interpreted that guidance and counseling teachers who master digital literacy tend to have more modern, efficient, and student-oriented services. School counselor who master digital literacy are able to use applications, software, or social media wisely and professionally in their services. These results are in line with the findings on the *Internet searching* and *Content evaluation* aspects that stand out in this study.

However, inconsistencies are also found in the *Knowledge assembly* aspect. In Gilster's (1997) theory, this aspect is the pinnacle of digital literacy because it relies on the ability to integrate information from various digital formats. This discrepancy suggests that although teachers are able to search for and evaluate information, they are not yet fully able to integrate the information into a systematic conceptual framework. This is also supported by Hermawan et al. (2019) who state that senior teachers tend to face difficulties in utilizing digital information integratively.

One of the surprising results was the low score in the *Hypertextual navigation* category, even though teachers currently engage a lot with information through the web, e-modules, and other interactive media. This was supported by the interview results. This is due to the fact that some guidance and counseling teachers still do not fully grasp the latest innovations and features that are seldom used online. This shows that not all professionals meet this standard. Similarly, in the *Knowledge assembly* area, the findings were supported by interviews, revealing that school counselors have not fully understood the policy around using AI and how to use social media for learning, especially among older guidance and counseling teachers.

In practice, these findings offer a foundation for creating strategies to boost the skills of school counselors. For instance, schools or education departments can arrange training that focuses on improving students' ability to navigate digital information and using it effectively in developing guidance and counseling programs. This kind of training is important not just for current counselors but also acts as a guide for teacher education programs. This aligns with the research by Rohimah et al. (2024) and Yanti (2023), which shows that the professional growth of counselors is greatly influenced by ongoing training, reflective practice, and institutional support. Well-trained counselors can better adapt their services to meet modern challenges, including the use of technology in their work. Theoretically, this study supports the idea that digital literacy is a key part of a counselor's professional skills. This should be included systematically in teacher training and used as a main factor when supervising and assessing teacher performance.

This study has limitations on the number of respondents which is relatively small, namely 5 teachers, because it only involves guidance and counseling teachers in one school. Therefore, the generalization of the results of this study must be done carefully. In addition, the data obtained is more quantitative descriptive

and not qualitatively in-depth. Although researchers have used data triangulation with interviews and documentation, the scope and depth of qualitative data can still be improved. Another limitation is in the aspect of research instruments. Although it has been validated by experts, this instrument has not been statistically tested.

The ability of guidance and counseling teachers to use digital literacy effectively depends on their professional skills. These skills include a strong grasp of counseling theories and practices, the ability to intervene effectively, and the skill to evaluate situations properly. Having professional competence is essential for school counselors to offer good guidance and counseling services. By mastering these skills, school counselors can perform their roles in a professional, focused, and student-centered way.

The professional competence possessed by guidance and counseling teachers will support the quality of services and the goals of guidance and counseling services. The professional competence of school counselor provides benefits in providing the ideal quality of counseling services, thereby helping students in overcoming personal, social, learning, and career problems. In addition, it provides benefits to the formation of character and discipline of students in creating a conducive environment. It also supports students' learning achievements so that they are able to develop their potential because they get targeted guidance and counseling services. In the context of digital literacy, the professional competence of school counselor has an impact on the quality of digital guidance and counseling services, efficiency in the management of guidance and counseling programs, and increased professionalism and competitiveness.

Further research is recommended to involve more schools and teachers of guidance and counseling at various levels of education, so as to be able to describe the condition of teachers' digital literacy in a more representative way. Research with a mixed-method approach is also recommended to explore qualitative aspects that have not been thoroughly revealed in this study, such as psychological barriers in the use of technology, or adaptation strategies used by teachers. Future research also needs to consider the dimensions of digital ethics, digital wellbeing, and digital communication skills as part of competencies that are increasingly relevant in the era of technological disruption. In addition, longitudinal studies can also observe changes in the digital literacy of guidance and counseling teachers over time, especially after they have participated in certain training or interventions.

CONCLUSION

According to the results of the study, it can be concluded that the mastery of digital literacy of Guidance and Counseling teachers at SMP Negeri 3 Ungaran is in the high category with an average percentage of 64%, which reflects a positive contribution to their professional competence. Of the four aspects of digital literacy analyzed, the aspects of Internet Searching (75%) and Content Evaluation (64%) occupy the high category, showing that teachers have been able to search and evaluate digital information effectively in supporting the implementation of guidance and counseling services. However, the aspects of Hypertextual Navigation (59%) and Knowledge Assembly (59%) are still in the medium category, which indicates the need to improve the ability to navigate and synthesize digital information integratively. The findings also show that the limitations of digital literacy mastery, especially in elderly teachers, have an impact on the suboptimal use of the latest technologies such as AI and social media features in counseling services. This shows that even though there is a strong foundation for digital literacy, it is still necessary to strengthen the ability to think critically and reflectively in the digital context. Overall, the mastery of digital literacy has been proven to support the implementation of the professional competence of Guidance and Counseling teachers, both in designing programs, implementing, and evaluating services. This study recommends more contextual and adaptive digital literacy training, as well as the need for strategic policies in strengthening the integration of digital technology into the sustainable development of teacher competencies.

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