

## **DIGITAL LITERACY LEVEL AMONG ENGLISH PROFESSIONAL TEACHERS**

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### **ABSTRACT**

Digital literacy is the ability to obtain, understand and use information that comes from various sources in digital form (Gilster, 1997). Along with the rapid development of information and communication technology, as well as the demands of the Indonesian Republic law number 14 of 2005, professional teachers are required to not only be able to utilize digital technology but also assess the validity of information obtained from digital sources. Gilster states that there are 4 aspects of competence so that someone is said to be digitally literate, the four aspects are aspects of internet searches, aspects of hypertext direction, aspects of evaluating information content, and aspects of knowledge preparation. This paper aims to analyze the level of digital literacy ability of professional teachers. The study used a quantitative method through Likert-scale questionnaires. The population in this study were all English professional teachers who graduated from a private university. The study found that research participants showed high levels of digital literacy and

preparedness to use digital technology. Thus, by integrating digital technology, those professional teachers might meet the digital literacy standards of professional English instructors while also improving the quality of English teaching and learning output.

*Keywords:* Critical-Creative Thinking, Questioning, Young Learners

## INTRODUCTION

The ability of Indonesian people to utilize information and communication technology (ICT) has generally improved in the last three years. This can be seen from the Digital Literacy Status in Indonesia 2023 report, the result of a collaborative survey between the Ministry of Communication and Information Technology (Kominfo) and Katadata Insight Center (KIC). According to the report, the total value of Indonesia's digital literacy index in 2023 is at the level of 3.65 on a scale of 1-5 points. This figure is in the "high" category and is an assessment of the strengths and weaknesses of the level of digital skills and knowledge, as well as providing an overview of conditions and opportunities in each region of the country (<https://survei.literasidigital.id/>).

Nowadays, digital literacy is important for society. Digital literacy is the attitude and skills of a person to obtain, create, solve, and convey information to the community using sophisticated digital technology ((Kit, 2022). Digital literacy is one type of thinking in the digital world. Digital society refers to active individuals in using digital technology and different learning styles (Rahayu et al., 2019)

(Bawden, 2001) He explains that digital literacy is the ability to read and understand information in the form of hypertext or information in multimedia format. Digital literacy is very different from traditional literacy, this is because digital resources that exist today can produce various forms of information including text, images, sound, and other forms. So, digital literacy is not only the ability to use these digital resources but also the ability to think about the information obtained from various multimedia sources effectively. Generally, digital literacy refers to the ability to use technology to find, analyze, use, and create content, such as computer hardware, software, and the Internet. Gilster in Soifah (2021) introduced digital literacy by defining it as the ability to read, understand, and analyze a variety of digital sources. Digital literacy incorporates any number of intelligent composing techniques across different media types, including words, messages, visual portrayals, movement illustrations, sound, videos, and multimodal positions. Like learners, literate technology users can utilize and create digital compositions.

Law of the Republic of Indonesia number 14 of 2005 concerning professional teachers and lecturers states that teachers are educators who have the main task, among others, to educate, guide, teach, and evaluate students in early education to secondary education. To become a teacher,

one must have studied for 4 years or more. The teaching profession is further strengthened by the existence of certification benefits for teachers who have passed the teacher competency test. Legally, those who can be called teachers are those who obtain a decree (SK), either from the government or private parties assigned to teach (Suparlan in Dendi, 2014). One of the competencies that professional teachers must have is the ability to use information and communication technology, but in reality, this competency is not fully owned by teachers in Indonesia.

Condition of the teacher's ability to use digital media most teachers in Indonesia is currently more likely to be grouped into the early majority group where in this group the respondents are still trying out various existing technologies and for their use, it takes a long time to consider (Zulham, 2014). Other research results related to the gap in the ability of teachers to use digital are proven by Sestiani et al (2022) where there is a digital gap between Generation Y and Generation Z teachers of 35.02. Generation Z excels in each sub-variable compared to Generation Y, because Generation Z has the ability and master better in using ICT compared to generation Y who are not all good at using ICT. The age factor triggers their slow ability to understand information and communication technology, so they are reluctant to use ICT as a means of conducting teaching and learning activities. The use of digital media among teachers is only limited as a tool to find sources of information related to the provision of teaching and learning materials. Furthermore, the use of the internet among teachers is to communicate by teachers to students both personally and through discussion groups (Gerrits, 2015).

Willems, Julie. & Campbell (2019) have pointed out that in this digital era, everyone has the same freedom to participate in higher education. Through the development of information technology, the delivery of information to users becomes faster (Hakim, 2017). Digital literacy skills for teachers can help them in digital communication, collaboration and participation, as well as increase digital equality and help bridge the digital divide. By having digital literacy competencies, teachers can help learners understand accurate information and maintain digital identity and well-being. Hypertext is a characteristic in accessing digital information, hypertext itself is a document link that is interrelated within a document. Different documents will come out by themselves when someone accesses the links available in a document. With regard to teachers' ability to access hypertext, research on accessing hypertext written forms by teachers in Malaysia shows that hypertext access has been running quite high but there are still many teachers who have difficulty accessing hypertext due to the large number of interlinked documents.

This condition shows the low use of digital media among professional teachers in Indonesia. Based on the phenomena and problems that occur related to the use of the Internet by teachers, this study was conducted to examine how the level of digital literacy competence of English professional teachers in Indonesia. This is done by knowing how much the level of teacher knowledge about hypertext directions as a characteristic in accessing digital information is

accompanied by the teacher's ability to search for information on the internet and evaluate the information obtained. Not only the ability to search and evaluate information, this study also measures the level of teachers' ability to organize the sources of information obtained for specific purposes. This is done as an effort to deal with the explosion of information available on the internet. Furthermore, this study was conducted to examine the level of digital literacy competence of teachers using some of Gilster's competencies. Based on the background that has been revealed, researchers formulated several problem formulations to examine the digital literacy competencies of English teachers specifically teachers who have been accredited as professional teachers in Jakarta, namely: 1. What is the level of teacher competence in matters relating to the process of searching for information from the internet?, 2. What is the level of teacher competence in terms of searching for information related to hypertext? 3. What is the level of teacher competence in terms of the ability to evaluate information content? 4. What is the level of teacher competence in terms of compiling knowledge in digital media?

The number of sample members was 92 professional English teachers who graduated from the UHAMKA PPG program to be used as respondents in this study. Data processing techniques were carried out through several stages, namely editing, coding, and tabulating using SPSS 22. This study uses frequency tables and score tables on the level of digital literacy. The category levels given are very high, high, low, and very low with the following scores:

Tabel 1: Score Categories

Categori	Score
Very High	3.26 – 4.00
High	2.51 – 3.25
Low	1.76 – 2.50
Very Low	1.00 – 1.5

This research uses the theory of digital literacy competencies put forward by Paul Gilster in 1997 as a reference for the literature review. Gilster himself mentions that there are 4 aspects of digital literacy competencies that a person must have to be said to be digitally literate, the four aspects are: internet searching, hypertextual navigation, content evaluation, and knowledge assembly. More fully, Gilster explains digital literacy competencies as follows: Internet searching, hypertextual navigation, content evaluation, and knowledge assembly.

## METHODOLOGY

This research is a descriptive study with a descriptive quantitative approach. This study aims to describe the digital literacy of English. This study focuses more on the role of digital literacy skills for teachers to use technology which is important in the development of education in schools. The method used in this research is an explanatory survey with data collection techniques through distributing questionnaires online via WhatsApp group where respondents are asked to fill in several closed questions related to their digital literacy competence Purposive

sampling technique was used to collect the sample. From the total population of 125 English professional teachers, the researcher took a sample of 92 teachers, where this sample was taken because they sent the responses within the time allotted well. They were given statements totaling 28 items with four choices for the answers, namely Strongly Agree, Agree, Do not Agree, and Strongly Do not Agree then the collected data was given a score based on the Guttman scale.

## **FINDINGS AND DISCUSSIONS**

This study was conducted to describe the level of digital literacy competence of professional English teachers in Jakarta, Bogor, Depok, Tangerang, and Bekasi (Jabodetabek) cities which is seen based on four aspects, namely internet searching, hypertextual navigation, content evaluation, and knowledge assembly. The data obtained will be analyzed using the Digital Literacy Competencies proposed by Gilster. Teachers' Digital Literacy Competency Level Based on Internet Searching Aspect (Internet Searching). The level of digital literacy competence of teachers seen based on the aspect of internet searching is explained as an individual's ability to use the internet and carry out activities on it (Gilster, 1997). Gilster explains that several activities can be done in using the Internet, including using and managing email accounts that are owned regularly, joining newsgroups/ mailing lists, conducting online activities, conducting online transactions, using the Internet to fulfill assignments, reading online news to using multimedia online such as listening to music, viewing videos, and others.

### **Teachers' Digital Literacy Competency Level Based on Internet Searching Aspect**

The level of teacher digital literacy competence seen based on the aspect of internet searching is explained as an individual's ability to use the internet and carry out activities on it (Gilster, 1997). Gilster explained that several activities can be done in using the Internet, including using and managing email accounts that are owned regularly, joining newsgroups/ mailing lists, conducting online activities, conducting online transactions, using the Internet to fulfill assignments, reading online news to using multimedia online such as listening to music, viewing videos, and others. Hendrickus Gerrits explained that the use of the internet among teachers is dominated by the use to find sources of information related to teaching materials and used to communicate with students. In line with Gerrits, Fitriadi (2012) in his research among vocational high school teachers in Hulu Sungai Utara Regency has had a fairly high level of internet usage of 42.22% which is used to find sources of information related to teaching materials.

Based on the data obtained scores from several aspects supporting the level of digital literacy competence based on aspects of internet searching, namely the ability to web search with an average score of 3.63, the average score of the ability to search for information on the internet of 3.78, and the average score of the type of activity in using the internet of 3,49. The overall total average score obtained at the level of digital literacy competence of English teachers based on aspects of internet searching reached 3,63.

### **Teachers' Digital Literacy Competency Level Based on Hypertext Navigation Aspects**

Gilster (1997) explains that hypertext navigation competency is a skill to read and understand dynamically about hypertext navigation. Hypertext itself is a language formatted to have the ability to connect to other texts and other types of media. Jones and Hafner also explained that hypertext is a type of electronic text that can be connected to other electronic texts.

Based on the data obtained, it was found that the average score of each supporting aspect of the digital literacy competency level based on hypertext navigation aspects such as the ability to understand hypertext and hyperlinks with an average score of 3.02, the ability to understand hypertext characteristics with an average score of 2.52, the ability to understand the difference between information on the internet and textbooks with an average score of 3.15, the ability to understand how the web works with an average score of 2.05, the ability to understand the characteristics of web pages with an average score of 2,65. The total average score of the teacher's digital competency level based on the hypertextual navigation aspect as a whole shows a score of 2.68

The findings illustrate that the ability to access hypertext directions still requires a deeper understanding. These findings are consistent with the findings of a study initiated by Saemah Rahman (2008) on the ability to access and learn hypertext among teachers in Malaysia which showed that many teachers use materials obtained from hypertext but the ability to understand hypertext is still minimal. 85% of the respondents admitted that it was quite difficult to navigate the many hyperlinks available and select hyperlinks to go to the information needed.

### **Teachers' Digital Literacy Competency Level Based on Content Evaluation Aspect**

Gilster (1997) explains that information content evaluation competency is a person's ability to think critically and provide analysis of something found online accompanied by the ability to identify and provide an assessment of the validity and completeness of information referenced by hypertext links.

Based on the data findings, the score of the supporting aspects of the digital literacy competency level based on the aspect of information content evaluation such as the ability to distinguish the display from the information content with an average score of 3.54, the ability to analyze the information background with an average score of 3.02, the ability to analyze web pages with an average score of 2.45, the ability to function and use FAQs in discussion groups with an average score of 3.12. The total average score of the digital literacy competency level of teachers of English in JABODETABEK based on the aspect of information content evaluation shows 3.03

Based on the data findings, it can be concluded that the majority of teachers still do not have the competence to think critically when dealing with the evaluation of information content found on the internet. Teachers still do not understand about not caring about the aspects of domain suitability with the available information content, searching for links provided on the web, and the

FAQ function in a discussion group.

### **Teachers' Digital Literacy Competency Level Based on Knowledge Assembly Aspect**

Gilster (1997) explains that knowledge assembly evaluation competence is a person's ability to assemble knowledge and build a collection of information obtained from various sources with the ability to collect and evaluate facts and opinions properly and without prejudice. Gilster (1997) revealed that in addition to critical thinking, it also requires the ability to learn how to assemble knowledge and build a set of information that has been obtained into new knowledge that is based on reliable information from several different sources.

Based on the results of the study, it was found that the average score of the supporting aspects of digital literacy based on aspects of knowledge assembly, such as the ability to compile teaching materials by joining newsgroups/ mailing lists/ discussion groups with an average score of 3,36, the ability to analyze the background of the information obtained with an average score of 2,98, the ability to use several types of media to prove the truth related to the information that has been obtained with an average score of 3,01, the ability to conduct discussions in problem-solving efforts to compile teaching materials with an average score of 3.06, the ability to compile the sources of information obtained to compile teaching materials with an average score of 2.37. The total average score of the digital literacy competency level of professional English teachers in Jabodetabek cities based on the knowledge assembly aspect is 2.96.

The concept of digital literacy proposed by Gilster explains that the level of digital literacy competence is more emphasized on the ability to think critically in searching for information on digital media (internet) and the art of critical thinking lies in the aspect of evaluating information content (Content Evaluation).

Fieldhouse and Nicholas (2008) explain that there is an overlap between the process of information searching and hypertextual navigation competencies in the digital literacy competencies proposed by Gilster. Where information searching in the digital era (internet) will always be related to hypertext navigation to explore unstructured links which simultaneously greatly affects the process of searching for information through digital sources and not as described by Gilster who describes the two processes separately.

### **CONCLUSION**

Based on the research, it can be concluded that the Teacher's Digital Literacy Competency Level based on the Internet Searching Aspect, the total average score reaches 3.6,3 where the total score is included in the group of digital literacy competency levels in the aspect of Internet searching which is classified as very high. The results of the Level of Digital Literacy Competence of English Teachers based on the Hypertext Navigation Aspect show 2.68. The total score value indicates that the level of digital literacy competence of teachers based on the aspect of hypertext navigation is high. The total score owned by teachers regarding the level of digital literacy

competence of teachers based on the aspect of information content evaluation is 3.03. The total score value indicates that the level of digital literacy competence of teachers based on the aspect of information content evaluation is high. Finally, the total score owned by teachers regarding the level of digital literacy competence of teachers based on the aspect of information content evaluation shows a score of 2.96. The total score value indicates that the level of digital literacy competence of English professional teachers in Jabodetabek cities based on the aspect of knowledge assembly is high. Finally based on the four components of digital literacy competence proposed by Gilster and the findings of this research, it can be concluded that the 92 English professional teachers in Jakarta, Bogor, Depok, Tangerang and Bekasi have 3.075 scores in total. It means they have a high competence on digital literacy.

Suggestions that can be given based on the results of the above research are the need for increased awareness of information content evaluation assessments that can be done by critically examining the information obtained on the internet by checking the validity, completeness and background of the information maker found in digital media or by comparing other similar information either comparing with information in other media such as books or through other websites that have credible authorship records or can contact librarians to provide more credible references. There is also a need for research conducted on teachers in rural areas who have limited access to digital media to compare digital literacy competencies between teachers in urban and rural areas.

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