Teachers and Digital Literacy

(Case Study of Teachers at SMA Negeri 1 Makassar)

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Abstract

Today's learning resources are no longer focused on classrooms. Internet has become a learning resource that provides a variety of knowledge and education. Teachers must have the ability to access the internet in order to obtain various references. Unlimited internet and anonymous also demand digital literacy competence in order to be able to sort out information from various sources and produce its own teaching materials which is the main focus of this article which is todescribe digital literacy obtained by teachers of SMA Negeri 1 Makassar using the digital literacy competencies proposed by Glister (1997). SMA Negeri 1 Makassar was chosen because SMA Negeri 1 Makassar is one of the favorite schools in Makassar and known for its achievements, which of course it is expected that the teachers have good digital literacy, as role models for other high schools. Data obtained by in-depth interviews, observation, and documents. All data obtained on site and through social media platform. This article is based on research with a case study approach found four components of digital literacy proposed by Glister. They are: a) Teachers of SMAN 1 Makassar using internet during learning process, b) hypertext navigation has not been fully mastered by every teacher, c) content evaluation has been implemented by teachers of SMAN 1 Makassar, and d) "knowledge assembly" is not yet fulfilled the the teachers during evaluation phase. Other than that, findings in this case study are: a) teachers' role towards the students, b) teachers' age affects digital literacy competencies, c) search engines utilization, d) social media WhatsApp as a communication and discussion platform.

Keywords: Digital Literacy, Teacher, High School, social media

Introduction

Today's education is also part of the internet which has no geographical, time and language boundaries. Nowadays education can be accessed anywhere and anytime as long as the facilities and infrastructure support it. Current educational facilities has to be adapted with the development of information and communication technology, so that the educators and students are required to be able to master these technologies purposes. Various information, references, classrooms and instructors are available free of charge and able to be accessed by everyone. This phenomenon not only provides unlimited access for students, but also has a negative impact, such as the truth, validity and legality of a reference, including someone who can be used as a reference to discuss a particular issue. This must be balanced with digital literacy. "Digital literacy is the ability to obtain, understand and use the information that comes from various sources in digital form" (Gilster, 1997: 6). Along with information and communication technology development and demands of the Republic of Indonesia Law Number 14 of 2005 concerning teachers and lecturers, teachers are required to be able to utilize digital technology and also assess the validity of information obtained from digital sources.

Internet use in Indonesia itself has reached 50% of the entire population in Indonesia (APJII, 2018). Apart from the internet usage in Indonesia generally, the use of the internet for education in Indonesia shows a fairly small number, only around 29.9% of all internet usage in Indonesia. Educators really expected to have good digital literacy, because in addition to make references and make their own teaching materials, this knowledge can also be passed to their students. Preliminary observation held by the researchers to informants which are teachers from several high schools in Makassar who attended a national education seminar held at Universitas Negeri Makassar on April 21, 2019. Researchers found that 40% of teachers understand digital literacy, 40% only know and have heard about digital literacy and 20% absolutely know nothing about digital literacy.

That fact then became the reason for the author to describe digital literacy obtained by teachers of SMA Negeri 1 Makassar, by using Glister theory as the main component. SMA Negeri 1 was chosen as the observation location because SMA Negeri 1 Makassar is one of the favorite school in Makassar, of course supported by good quality facilities and infrastructure, also provide competent educators especially in digital literacy. Four aspects of digital literacy are; a) internet searching, b) hypertext navigation, c) content evaluation, and d) knowledge assembly.

Previous research conducted by Herdhita Vidya Kharisma, a student of Communication Science, Airlangga University in 2017 with the title "Digital

Literacy Among High School Teachers in Surabaya". This study use quantitative methods with multistage random sampling methods on 100 teachers from 5 different high schools in Surabaya. The results of the study indicate the level of digital literacy among high school teachers in Surabaya is high in all aspects of competence, in the internet search aspect, the hypertext navigation aspect, the information content evaluation aspect and the knowledge assembly aspect. In addition, there is also a previous research by Citra Rosalyn Anwar and Arnidah (2017) titled "New Media Literacy In The Education World (Phenonema Digital Media in Higher Education Communication in Makassar)". In this case, the phenomenon of cyber communication is a major role in educational communication. It takes the ability of teachers to understand the values, ethics and norms of cyber communication, especially in terms of education. So, the teachers' digital literacy skills are needed to support the abilities and competences both in communicating and managing learning process and also the ability to properly and correctly use various technologies to support the teaching and learning process.

Research Method

This journal uses qualitative research method with a case study approach. This case study approach is used by researchers by making observations during the teaching and learning process when the teachers prepared the class or material, the researcher observed how the teacher use the internet. Furthermore, researchers conducted in-depth interview with the teachers, and the documents obtained was the evidence of the process of teachers using the internet.

1. Observation

    Researchers have conducted observations by came to SMA Negeri 1 Makassar and met 5 teachers which became the informants of this research. Researchers also observed each 5 teachers' learning process at class, and then conducted in-depth interview with 5 teachers.

2. In-depth Interview

    In this study, researchers have been directly involved in interviewing teachers in their daily lives at school using the internet. The criteria for informants who have been interviewed are:

    a. Civil servant teacher aged 20-40 years old is one female teacher.
    b. There are three civil servant teachers aged 40-60 years old, consisting of two female teachers and a male teacher
    c. Non civil servant teacher aged 20-40 years old is one female teacher.

3. Documents

    Data collected from documents were evidences of digital media utilization by the teacher during the learning process and screenshots of

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the teacher using social media platform which is WhatsApp with students.

Results and Discussion

1. Main Competence of Digital Literacy

Previous research that became a reference for researchers in conducting this research was a study titled "Digital Literacy among High School Teachers in Surabaya" by Herdhita Vidya Kharisma, a student of Faculty of Communication Sciences, Airlangga University in 2017. This research uses quantitative method with multistage sampling method. Random sampling of 100 teachers from 5 high schools in Surabaya. The results showed that the level of literacy among digital high school teachers in Surabaya was high in all aspects of competence, which are the internet searching, hypertext navigation, content evaluation and knowledge assembly. Gilster (1997) classified four main competencies that a person needs to have so that they can be said to have the ability in digital literacy. These competencies are:

a. Internet Searching

Searching for information process on the internet has been implemented by teachers at SMA Negeri 1 Makassar, and according the research results, teachers have used the internet to find and collecting material to be used as learning material in class. Not only the teachers, students are also given the opportunity to find their own material. However, in this case the teachers are able to monitor the students' when they're using the internet in the classroom.

b. Hypertext Navigation

Teachers' comprehension of hypertext is still considered lacking, because according to the results of this research, it was found that out of five teachers who were used as informants at SMA Negeri 1 Makassar, there were only two teachers who truly understood hypertext. This proved that hypertext is still poorly understood by some teachers in the process of searching for information or material through the internet. Some teachers are still constrained by hypertetxt presence. Sometimes teachers have difficulty continuing to search for information or material because they do not understand the navigation (direction) of a hypertext that is on the web browser.

c. *Content Evaluation*

Based on the research results, the information evaluation process has been implemented by the teachers at SMA Negeri 1 Makassar. This is based

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on the results of interviews conducted by researchers with teachers about how the content evaluation process is applied when searching the internet. To obtain material to be taught during the learning process, the teacher reads and studies information sources they got from the internet. Besides that the teachers also adjusts the material they have collected via the internet with the material they own by themselves.

d. *Knowledge Assembly*

Steps of knowledge assembly in learning resources or instructional media making process began by finding and collecting material through learning resources such as books and the internet, then the teacher compiled and designed the material in order to became a material that is ready to be given to students. If the material or instructional media has been given to students both directly and indirectly, students can use it as a learning resource. According to the results of this research at SMA Negeri 1 Makassar, the teacher's ability to carry out the process of knowledge assembly is sufficient. Each teachers were able to make their own instructional media but there is only one teacher who was able to show a media that was made by herself, which is a YouTube channel contained a collection of learning materials that can be accessed by students online. Other teachers also make their own learning evaluation media in quizzes form through applications such as quiziz, google classroom, and quipper school, and then the teachers insterted questions or quiz material into the application.

2. Other Digital Literacy Competencies obtained in the research

In addition to the 4 main competencies of digital literacy, researchers also found other competencies, they are:
1. Teacher's role towards the students when the students searching for information. At this rate, the teachers'role is also able to supervise students when they are in the classroom. Students are sometimes encouraged to find information on their own, but the teachers' role is still needed to monitor the contents that students found are in accordance with the material being taught.
2. The teachers' age affects digital literacy competence. The results of this research showed that age can be a factor of each teachers' differences in digital literacy competence. In this case, the difference in age and era makes each teacher have different abilities to use a technology, such as web browser utilization, social media as discussion paltform with students, and certain applications. Moreover, these days' technological terms are still considered unfamiliar to some teachers, such as knowledge of hypertext.

3. Search engines utilization by teachers indicates that there are still teachers who do not know about search engine specifically the ones designed for education, so they only use general search engines that are generally used as a place to find information or learning materials. So, when the teachers evaluating content, the teachers must be able to sort out the sources of information or material that might be obtained from using the web browser.

4. Social Media WhatsApp as a communication media and discussion. Other findings in this study also involved social media as a communication tool that capable of supporting the distance learning process. In this case, teachers at SMA Negeri 1 Makassar use WhatsApp as a virtual learning platform with students. The whatsapp chat group is considered more efficient and easier for teachers to directing the students and giving assignments to students without having to meet each other. So the teachers' ability to use the internet in finding information process must also be supported by ability to use communication media such as social media which can help the learning process and the process of disseminating information via the internet.

Conclusion

Based on the research's results and discussion, it concluded that the teachers' of SMA Negeri 1 Makassar digital literacy competence applied in the learning process. Through digital literacy the teachers able to provide quick information, proper information, and in balance with the students' needs.

Internet Searching has been implemented by teachers of SMA Negeri 1 Makassar in supporting the process of searching for information and learning materials. Teachers have used the internet and social media in the process of collecting material for students.

Hypertext Navigation has not been fully mastered by every teachers, there are teachers who know and able to apply hypertext function. There are those who only know what hypertext is but have not been able to use it when searching information through the internet. The other teachers did not know what hypertext was, so the direction guidance process when using the internet became an obstacle.

Content Evaluation, has been carried out by teachers of SMA Negeri 1 Makassar by sorting out the material found on the internet and then adjusting it to the reference they already have. However, some teachers still use the general google search for searching information and it is easy to find websites or blogspots which informations are still lacking because it was from less reliable sources.

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Knowledge Assembly, has not fully fulfilled the evaluation step conducted by the teachers. There are teachers who are only collecting and compiling material. There are also teachers who after compiling material, then use it as a learning evaluation media. There is also teachers' ability to make their own learning media at the publishing stage through other social media such as YouTube.

There are also other findings that show that the teachers' role is still needed in supervising students, either directly or indirectly. In addition, this study also showed that the age affects each teachers' differences of digital literacy competence which are skills and knowledge of technology. In search engines utilization, teachers make more use of regular google searches than google scholar which is designed specifically for education. Moreover, other findings also showed that social media can be used as a supporting communication tool in the distance learning process. That's why most teachers at SMA Negeri 1 Makassar use social media, such as WhatsApp which is considered more efficient and easier to use for communicating with students.***

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