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The Importance of Digital Literacy in Geography Learning for Geography Education Students at Fish Unima

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ABSTRACT

The formulation of the research problem is how digital literacy ability in geography learning for students majoring in geography education at FISH Unima. The study aimed to determine digital literacy abilities in geography learning for FISH Unima geography education students. In achieving these objectives, this research was carried out using qualitative research methods, and data collection techniques which included: observation, interviews, documentation, and triangulation. The research informants were FISH Unima geography education students. The stages of data analysis include data reduction, data display, and conclusion drawing/verification. The results showed that results of the study showed that there were several digital literacy skills among students of FISH Unima geography education, namely: a) the ability to obtain various information needed in learning, b) the ability to use the internet, c) the ability to recognize computers as a means and technology in learning, d) the ability to use various digital media and e) the ability to understand sources as learning materials

Keywords: Ability, Literacy, Geography

1. INTRODUCTION

The Department of Geography Education is one of the educational institutions that provide knowledge and skills about geography with a spatial approach. Geography is a scientific discipline that studies the conditions of human life and environmental conditions from a spatial perspective as a geographical approach.

According to [1] that in the modern 21st century, even in the digital era, all elements of human life really need a touch of technology including the use of the internet, therefore the educational component including learning participants is guided to master

various abilities and skills. Technology has become a demand and a necessity in various aspects of work, therefore one of the skills that must be possessed is digital literacy skills in addition to other abilities and skills needed today.

The challenges that must be answered in the geography learning process, including those developed in learning in the Geography Education major, are that one of the important skills that must be instilled in students is digital literacy skills and abilities. This is important to do given the current technological developments and advances that require students to have digital skills as a preparation for facing various challenges in today's digital era.

The discipline of geography is part of the earth science discipline that studies the geospheric phenomena that exist on Earth and are seen from a spatial, temporal, and regional complex point of view and their relation to human life [2]. There are two aspects studied in geography, namely physical and social aspects, and the interaction between these two aspects. Thus the main approach to geography is a spatial, environmental, and regional complex approach. The geographical approach is the formal object of geography and the material in geography is the material object of geography. Studies of geographic phenomena as stated above, are mostly carried out using geographic information technology. In its implementation, human resources who have digital literacy skills are needed.

Geography learning that is developed must be carried out holistically and oriented towards the skills needed in this modern era. Because of that, a learning process that is oriented to the 21st century is needed with the various types of skills needed. Geography learning must contain substances that are following the needs of the modern age, to be able to produce graduates who have the knowledge and skills that are under the needs of the present century. In this section, of course, it is hoped that the planners and implementers of geography learning must innovate in learning so that learning will produce according to the expectations of today's modern century.

The development of technology and information today is a form of progress that has an impact on digital technology-based geographic education innovations. Under these conditions, digital literacy skills are an important thing that needs to be developed in learning [3].

The learning process, including those developed in FISH Unima geography education, must be able to provide digital literacy skills to existing students. Network-based learning or what is known as online learning which is currently being developed is part of an effort to develop students' digital literacy skills. Digital literacy skills have now become demands and needs, including in the world of education. The reality shows that the world is in the era of the industrial revolution 4.0 which is based on technology, where all aspects of life utilize technology. The development of the internet and digital technology has become important and decisive and has had a lot of impact on the world of education.

In general, it can be explained that the concept of digital literacy is a form of a person's ability to know and utilize various information originating from various sources that are accessed using computer devices [4]. So digital literacy is related to the ability to understand various information obtained using digital technology.

The use of digital technology in education is an effort to improve the progress of human civilization, so that through the learning process these efforts are made so that students as learning participants have a set of abilities and skills needed to build life in the era of the industrial revolution 4.0. The use of digital technology facilities is none other than to create a conducive learning atmosphere and facilitate the course of learning.

[5] Explained that one of the objectives of implementing digital literacy-based learning is for participants to acquire important skills and abilities related to information technology. The abilities that are expected to be possessed by the participants include the ability to obtain external information related to the knowledge needed and the ability to utilize existing technology to assist learning activities. Including the need to get various assignments given in the learning process.

The development and progress of information technology and the internet today have made digital information important. With the existence of this technology, everyone is free to enter various data and information in cyberspace so that people can know it in an unlimited space. In today's digital era, the internet is an important and decisive component in human life, because it helps a lot in daily activities. That is why learning participants including students need digital technology, including by using search activities through Google to obtain knowledge data and information needed in learning.

[6] explains that digital literacy cannot be separated from various life activities, especially in today's modern era which needs technology. Technological developments now including the existence of the internet and advances in telecommunications are an important part that gave birth to globalization.

In learning activities that use applications or software, it can make it easier for students to find various literature regarding the subject matter provided by their lecturers. So using this technology can support student needs in terms of materials because the learning process does not only occur indoors but is also very likely to occur outside the classroom. This requires very basic training, starting from the introduction of the application to the operation so that in the teaching and learning process you can use the software properly.

Amid today's advances in technology and information, students must have the ability and even skills to face the all-digital era. Geography education students must have digital literacy abilities and skills in geography learning. So students are required to have

digital literacy skills as a demand in the current 4.0 revolution era.

The digital literacy skills referred to by the [7]state that the development of digital literacy can be carried out in the realm of schools, families, and communities. Digital literacy that is developed in both the educational and community realms is expected so that the education and community components have several capabilities such as a) the ability to access, b) the ability to understand the materials accessed, c) the ability to use digital media, communication tools, and networks. With this ability, they can create new information and disseminate it wisely. Apart from being able to master the basics of computers, the internet, productive programs, as well as the security and confidentiality of an application, students are also expected to have a digital lifestyle so that all their daily activities are inseparable from the mindset and behavior of an all-effective and efficient digital society.

UNESCO defines digital literacy as the ability to use information and communication technology (ICT), to find, evaluate, utilize, create, and communicate content/information, with cognitive and technical skills. 15 The aim is to educate and advocate for internet users [8].

Some of the important digital literacy skills and abilities today include a) the ability to access or search the internet (Internet Searching), b) the ability to understand the materials accessed, c) the ability to use digital media, communication tools, and its network, or the ability to use digital technology, and d) is expected to have a digital lifestyle so that all daily activities are inseparable from the mindset and behavior of a dynamic digital society in addition to the ability to understand the material accessed so that it is beneficial for its users.

Students of the Department of Geography Education at Manado State University as prospective educators in the field of geography will certainly have consequences if they do not have digital literacy skills. In this digital era, students should be able to use technology to make it easier for their students later, both in terms of material and other interactions.

2. RESEARCH METHOD

The research method used in this research is qualitative. Data collection techniques include observation, interviews, documentation, and triangulation. The research informants were lecturers and students of FISH Unima geography education who were determined by purposive sampling. The stages of data analysis include data reduction, data display, and conclusion drawing/verification as well as testing the validity of the research data [9]).

3. RESULTS AND DISCUSSION

The concept of digital literacy skills in the era of the industrial revolution 4.0 in geography learning.

The results of the study show that there are several digital literacy skills in the 4.0 industrial revolution era that geography education students have as follows:

- a. Ability to access or search the internet,
- b. Ability to understand accessible materials,
- c. Ability to use digital media, communication tools, and networks, or the ability to use digital technology, and
- d. Having a digital lifestyle so that all of their daily activities are inseparable from the mindset and behavior of a dynamic digital society.
- e. Ability to understand sources as learning materials

So the results of the research conducted on students turned out that there are approximately 5 skills and abilities related to digital literacy, which exist in the Geography Education Department as learning participants who cannot be separated from using digital technology. This condition shows that geography students have realized how important digital literacy is as an important ability so that students can utilize technology in learning. As a student who wants to progress and succeed, of course, he must have good motivation to develop his abilities so that he has good digital literacy skills so that he is able to access various information needed related to the field of knowledge he is temporarily pursuing, namely geography education.

Next, details of digital literacy skills among geography education students will be presented, related to the abilities described above, as follows::

3.1. Ability to access or search the internet.

The results of the study indicate that there is an ability among geography education students related to accessing or searching via the internet to obtain learning needs including assignments given in lectures.

According [7]that one of the important digital literacy skills is the ability and skills in accessing unlimited information. This is seen as one of the

important digital literacy skills that students need to have. Digital literacy ability is a skill or ability in terms of using information and communication technology facilities, including the ability to use computers in finding, evaluating, or assessing, using, including the ability to communicate various information or materials obtained through this technology as needed. So there is an ability or skill in utilizing various information obtained through the internet [8].

So a person's skills and abilities in accessing information or in terms of using the internet are an important part of digital literacy. Through the use of the internet, students are expected to be able to obtain information as study material or important learning materials needed in learning.

Digital literacy skills, especially those related to the ability to search for information or the ability to access various information, are very important and needed in the current era of advances in information technology which continues to develop. The current condition can be said to be an era where there is a rapid explosion of information. Because of that situation, it has motivated anyone to develop digital literacy skills and abilities. Including students as a generation that really needs a lot of information and knowledge. This is what already exists in students of geography education at the Faculty of Social Sciences and Law, Manado State University (Unima) because this ability is very much needed in conducting studies and analysis of geographical phenomena.

The explanation above is in line with the results of a study from Riani (2017), which explains that the ability to obtain information is needed and this is obtained through information technology networks, and these sources will be useful if users understand the benefits of the sources sought and obtained.

According to [10] that the ability to access information through the internet network is important because it is the ability to be able to obtain various access to information. Thus this ability needs to be possessed by everyone, including students. Someone who has the ability to use the internet will get various information needed in learning and other needs that are useful in life.

3.2. Ability to understand the materials accessed,

The results of the research show that there is an ability to use the internet as a supporting tool in learning, among FISH Unima geography education students.

According to [7] that one of the capabilities of digital literacy in the realm of education and society is expected that the education and community components have the

ability or skills to use the internet in order to access various sources needed in learning.

It turns out that students of the Geography Education Department already have the ability to use the Internet for learning. Given that by using the internet, students will obtain various materials needed for learning. This has become part of the goals of learning geography, that students must have digital literacy skills as a necessity in the era of the industrial revolution 4.0. According to [11] that digital technology is now very important in the learning process, even the use of technology in learning has had a positive impact on the progress of learning. According to [12] that literacy skills are none other than skills in using information including in the learning process.

This becomes something that is important for students, of course, because after students get information in the form of accessible materials, students must try to understand what is accessed. Of course, the materials accessed are related to course assignments given by lecturers to students who are searched via the Internet.

3.3. Ability to use digital media, communication tools, and networks, or the ability to use digital technology

The results of the research show that among FISH Unima geography education students already have the ability to recognize computers as a means of learning technology. According [7] that one of the capabilities of digital literacy in the realm of education and society is expected that the education and community components have the ability to use digital media, including communication tools and networks. It is very important for the community component including students to have digital literacy skills, including the ability to recognize computers as an important technology in learning.

Today's advanced geography learning process, of course, really needs computer equipment as a requirement for today's learning technology. Because of that, a user must have an introduction to the computer, in order to use it properly.

Therefore students must have the ability to use computers as a learning technology. In the process of learning geography, there are computer courses that equip students with computer knowledge including the internet in the learning process, including forms of online learning that have been applied so far in the geography learning process.

The concept and implementation of learning geography education that is developed must be able to answer the needs of the modern age, namely digital literacy skills as one of the important abilities in learning

geography. This is realized because in the current conditions digital technology activities are needed in various activities.

This explanation emphasizes the importance of learning geography which must be adapted to today's developments that really need digital. The planners and implementers of geography learning must develop digital technology-based learning, in this way it is hoped that digital literacy skills will be formed among geography students. If this is achieved, graduates of geography education will become graduates who have the competencies needed in today's modern era.

3.4. Having a digital lifestyle so that all of their daily activities are inseparable from the mindset and behavior of a dynamic digital society.

The results of the study show that among students of geography education, there is an ability to use various digital media.

According to the [7] that one of the capabilities of digital literacy in the realm of education and society is expected that the education and community components have the ability to use various digital media.

According to [13] digital devices have become an important part of human life even for the daily needs of people in big cities, small towns, and rural areas, even digital literacy is seen as a new lifestyle in Indonesia, namely a digital lifestyle.

This view explains that society, including students, must have a digital lifestyle. As a student of the Department of Geography Education, of course, you cannot be separated from the demands of the development of the use of digital technology today in learning. Therefore, Geography Education students must have and exhibit a digital lifestyle that will be able to spur progress in the learning process and become students who are able to use digital technology in learning activities to meet their needs for information and knowledge.

Geography learning uses a lot of information technology because geography studies use applications, one of which is a Geographic Information System. The system uses information technology in conducting studies and analyses. In geography, there is also what is known as remote sensing, which also uses a lot of digital information systems in the study and analysis of geographical phenomena.

Students of the Department of Geography Education at Manado State University as prospective educators in the field of geography will certainly have consequences if they do not have digital literacy skills.

In this digital era, students should be able to use technology in the context of self-development, in order to make it easier to get information through digital technology. The reality shows that there are so many existing computer and network devices, which of course requires skill from the user to be able to recognize existing devices. That's why the ability to recognize the device is needed.

3.5. The ability to understand the sources as learning materials

The results of the study show that among students of geography education, there is an ability to understand the sources of material accessed via the internet.

According to the [7] one of the most important digital literacy skills is the ability to understand sources or materials obtained from search results using digital information technology. [14] the development of digital technology has led to various forms of transformation in various aspects of life. [15] explained that digital literacy is one of the abilities or skills that is needed in the digital era. [13] explains that today's technological advances encourage learning participants to have digital literacy skills.

Digital Literacy is an ability or skill that must be possessed by learning participants, including geography education students. This is because digital literacy has become an important skill in the 21st century as a modern century that uses digital a lot in various work activities.

It is realized that currently is the modern era or known as the era of the digital revolution. In the digital era, any data and information needed can be obtained quickly and easily, at a low cost. This is a form of progress and convenience in the digital era [16] For example, the results of internet searches obtained as learning materials, of course, these materials will be useful if users can understand these sources. Given that through digital technology there are so many sources and materials available, of course, the ability to choose and identify which sources are useful for the development of science is needed.

This provides an understanding that what is obtained as a material or source of information must be understood by those who access it, in this case, students, so that the sources obtained provide benefits to their users. This ability is really needed by students, including those in the Unima FIS geography education department, because information that is sought, identified, and obtained will not provide benefits if the person who gets the information is unable to give meaning to the source obtained.

4. CONCLUSION

Based on the results of this educational research, the following conclusions can be put forward: digital literacy skills among FISH Unima geography education students include:

- a. Skills and abilities in obtaining various information needed in learning.
- b. Skills and ability to use the internet.
- c. The ability to recognize computers as a means and technology in learning.
- d. Ability to use various digital media
- e. The ability to understand the sources as learning materials

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