

CHAPTER II

THEORITICAL FRAMEWORK

A. Digital literacy

In the twenty-first century, developing digital literacy competencies is an important aspect for students in long-life learning, like creativity and innovation, problem-solving, critical thinking, collaboration and teamwork. Students can access the internet from anywhere and anytime to maximize the utilization of information technology. Students need software skills to find information sources, handle their relevance and validity, process them efficiently, and helping answer problems to overcome problems related to their academic improvement program.¹ The skills require students to engage with digital technologies, which means students need to use digital technologies, access the information in internet platforms, and communicate ideas and critical thinking. Interaction in digital media is about technical ability to access digital, and understanding the content itself. According to McLoughlin, Digital literacy has engaged students in critical thinking about the opportunities and

¹ Gaung Perwira Yustika and Sri Iswati, "Digital Literacy in Formal Online Education: A Short Review," *Dinamika Pendidikan* 15, no. 1 (2020), 68.

advantages of digital technologies frequently used, such as web 2.0, social networks and mobile applications.² However, in implementing digital literacy, students can become active participants in their educational, social, cultural and intellectual life. Students who are digital literate in technologies can access, critically evaluate, innovatively utilize and successfully manage information from purposes in any source.³

Digital literacy involves students identifying, reaching, managing, combining, evaluating and analyzing digital sources. Gilster has mentioned that digital literacy relates to students' skills in finding and choosing reliable of relevant information within complex networks.⁴ In addition, the benefit of being digitally literate, students can find and reach information effectively. So, they can get a good grasp of ways of information on the internet. According to Ozden, being

² Catherine McLoughlin, "What ICT-Related Skills and Capabilities Should Be Considered Central to the Definition of Digital Literacy ?," *Europe*, 2011, 472.

³ Delnaz Hosseini, "Digital Literacy in Early Elementary School : Barriers and Support Systems in the Era of the Common Core," 2018, 12.

⁴ Gilster, *Digital Literacy*, 20.

digitally literate is important to socially powerful institutions like education, tend to support dominant literacy practices.⁵

Digital devices that student has use help student's to search and get more information on the internet. Students used digital devices such as smartphones, laptops and tablets to support their learning by downloading application due to educational purposes.

Digital literacy has been classified into three levels; digital competence – digital know- how, the usage of digital – applications of digital competence and information digital– the creation of the knowledge as a result of digital usage.⁶ Prior et al said that in her research that students can exhibit different levels of digital literacy. ⁷ It can be concluded students have a similar or certain level of digital literacy that can prompt the issues in online learning.

B. Media Literacy, Information Literacy and ICT Literacy

Gilster has defined the concept of digital literacy is the ability to understand and use information from a variety of

⁵ Mehtap Özden, "Digital Literacy Perceptions of the Students in the Department of Computer Technologies Teaching and Turkish Language Teaching," *International Journal of Progressive Education* 14, no. 4 (2018), 27.

⁶ Allan Martin, "DigEuLit – a European Framework for Digital Literacy: A Progress Report," *Journal of ELiteracy* 2 (2005), 133.

⁷ Prior et al, 96. "

digital sources. However, digital literacy has a broader concept than what was conceptualized by Gilster. Martin has integrated digital literacy into three aspects; Media literacy, information literacy and ICT literacy.⁸

1) Media literacy

Nowadays, there are many media's which everyone can access anywhere and anytime. The variety of media and its function can be accessed by everyone. Student's need to understand how to use and apply the media resources available for learning. According to Trilling, media has used for compelling and effective communication that creates by using media tools product such as video, audio podcast and website that students can use for learning.⁹ As indicated to the centre of media literacy, media literacy ability gives a framework to accessing, analyzing, evaluating and creating the messages in a variety of forms, building an understanding of the role of media in society, and the essential skills of inquiry and self-expression.

⁸ Lankshear and Knobel, *Digital Literacies: Concepts, Policies and Practices*, 28.

⁹ Bernie Trilling, 67.”

Media literacy is the medium for delivering messages (web sites, audio, video, animation, podcast, graphics, etc.), crafting messages for a particular medium, for example; the graphic “look and feel” of websites and give the effects of the media message that has on audiences. In online learning, students can select the right medium for some topics properly, obtain the proper permissions to reuse other’s material and choose the suitable of communication methods to promote their works in an interesting way.

2) Information literacy

In this digital era, students’ levels of information literacy and fluency needs to be rise. There will be augmentative demands of the ability to access, evaluate and use information accurately and effectively. Students can access websites to find information on the internet sources that will be useful for their classroom activities.¹⁰ Webber and Johnston have defined that information literacy refers to students’ competence in finding effective

¹⁰ Tarihoran, “Using Facebook Group as a Blended Learning Medium in Teaching Cross-Cultural Understanding in Islamic Higher Education, 16.”

information.¹¹ The term information literacy has been utilized to emphasize the importance of access to information, the evaluation, creation and sharing of information and knowledge. Students need to be information literate, who can distinguish certain information and have the critical awareness to search, evaluate, interpret and apply information for educational purposes now in the future. When accessing information, student's had to make sure the information was verifying accuracy, currency, relevance and credibility. The concept of the internet is rather than one way of information source. Accessing, evaluating, applying and managing information well, and using information sources appropriately and effectively are the skills that student are mastering in this digital era.

3) ICT literacy

ICT or information and communication technologies are the essential tools of the digital era.

¹¹ Bill Johnston and Sheila Webber, "Studies in Higher Education Information Literacy in Higher Education: A Review and Case Study," *Srhe.Tandfonline.Com* 28, no. 3 (2010), 346.

According to UNESCO, ICT Literacy is the ability to use specific digital devices, software and infrastructure.¹² Students are required to use digital technology to research, organize, evaluate and communicate information. The impact of ICTs is changing the nature of literary texts and generating new forms of literary narratives.¹³ Students' literature 10 years later giving significant role in state and national English curriculum documents, such documents are silent about literary narratives in the digital sphere.¹⁴ The digital media and other online media resources for working literature in the classroom burgeoning; admit that the proper of computing facility in schools in Western countries is getting normal, and there is arising research literature that managing with interface of ICTs, literature and literacy education.¹⁵ To bridge the gap between many student's experiences in working with literature, need

¹² *Global Media and Information Literacy Assessment Framework: Country Readiness and Competencies* (France: UNESCO, 2013), 29.

¹³ Len Unsworth, *E-Literature for Children: Enhancing Digital Literacy for Learning* (New York: Routledge, 2006), 2.

¹⁴ Unsworth, 1.

¹⁵ Unsworth, 2.

access to *organizational, interpretive and pedagogic* frameworks that will assist students in managing effective classroom programs using digital resources for developing literary understanding and literary learning especially in online learning.

C. The factors of the challenges of digital literacy in students online learning

In the implementation of online learning, students' advancement in technology is needed to access the information. Students face some barriers that are related to their digital literacy skill. According to Pratolo and Solikhati in their research, there are several factors of the challenges digital literacy skills such as lack of technology sources, low students skill in utilizing digital technology, incapability to afford technology and poor budgeting to purchase technology.¹⁶ In the digital era, the development of digital technologies is also followed by the challenges of implementing the digital literacy skills that include students learning and innovation skills, information and technology

¹⁶ Bambang Widi Pratolo and Hana Amri Solikhati, "The Implementation of Digital Literacy in Indonesian Suburban EFL Classes," *International Journal of Scientific and Technology Research* 9, no. 1 (2020), 1510.

skills.¹⁷ This reveals that students need to provide digital technology to support their digital literacy skills, especially in implementing of online learning.

D. The importance of digital literacy

The importance of digital literacy will develop students' ability in digital technologies, especially for educational purposes. Digital literacy skills can potentially impact students' performance in online class. According to Trilling and Fadel, Students have asked to think critically, creatively solve problems, collaborate effectively and share digital content.¹⁸ Nevertheless, students use digital technology not only for entertaining purposes but also for understanding technology and using it appropriately. Embracing digital literacy is key to encouraging students learning. It is essential to students' long-life learning improvement. Additionally, the importance of harnessing digital literacy influence to find work and advance in the implementation of online learning.

E. Digital literacy for English Language Learning

In a digital age, Digital literacy has an important role for students in English language learning. As stated by Tarihoran

¹⁷ Bernie Trilling, 1.

¹⁸ Bernie Trilling, *21st Century Skills: Learning for Life in Our Time*,40.

in his research, the practice of learning a foreign language enables students actively to communicate in a foreign language, who take students developing their English competencies within and outside the classroom especially in online learning.¹⁹ However, students in 21st century are using digital technology to improve their learning especially in their English language learning.²⁰ The role of digital literacy in language learning influence students to be active in communicate using English. The process of teaching and learning English will be centered and students' ability to connect with English skills will improve.²¹ Students are forcing to know how to create, apply, analyze, understand and evaluate the information that students find on the internet. In the lesson plan that teachers design which relates to online learning, Students must be able to use digital technologies to support their proficiency towards English learning. For example, students can use digital media such as zoom to

¹⁹ Naf'an Tarihoran, Bayi Syafuri, and Atika Rahmania Elbarusi, "The Role of Positive Psychology in English Foreign Language Classroom," no. January (2020), 285.

²⁰ Nafan Tarihoran, Alaa Q Alhourani, and Joel Alanya-beltran, "CALLing the Process of Writing ": Facebook as Language Support Learning Tool in Enhancing the EFL Learners ' Online Writing Performance" 18, no. 1 (2022): 496–510, 497.

²¹ Nafan Tarihoran, "Teacher Candidates' View on Using Technology in Developing English Language Teaching Materials," *International Journal of Psychosocial Rehabilitation* 24, no. 8 (2020): 3005–13, <https://doi.org/10.37200/IJPR/V24I8/PR280319>.

practice their speaking skill with others during online classes. Students should be literate in using digital media for applying English language learning.²² Moreover, students can access information on the websites or e-book to improve their reading and writing skills. In using and accessing both aspects, ICT skills are needed. In the learning process, students are engaged to develop important learning skill such as critical thinking, problem solving and effective communication.²³

F. Online learning

Nowadays, online learning is used at all levels of education because of government policy related to the Covid-19 pandemic policy. It changes learning places from dealing face to face in conventional classes to virtual meetings in online learning classes. According to Carliner, online learning has referred to learning and other supportive resources that are available through a computer.²⁴ Khan said that online learning is an online instructor's as an innovative approach to conveying the materials to a remote audience, using the web

²² Bernie Trilling, *21st Century Skills: Learning for Life in Our Times*, 61.

²³ Oktavian Mantiri, Garth K. Hibbert, and Jeanette Jacobs, "Digital Literacy in ESL Classroom," *Universal Journal of Educational Research* 7, no. 5 (2019): 1301–5, 1303.

²⁴ Saul Carliner, *An Overview of Online Learning*, BusinessPro Collection (Canada: HRD Press, 2004), 1.

as the medium.²⁵ Online learning provides students to access learning materials and communicates with the instructor and other learners. It requires students to construct personal meaning, get knowledge and grow from the learning experiences.

However, online learning implicates more than displaying and delivering materials via the internet: the learner and learning process should be the focus of online learning. Online learning has become an option for students for doing distance learning and implementing digital learning. The implementation of online learning needs student's digital literacy skills, and it is a significant challenge for them to provide their skills in interactive learning.

Online learning permit students to save time and space.²⁶ In addition, online learning should have high authenticity (for example, students should learn in the context of the workplace), high interactivity and high collaboration. Bonk and Reynolds have mentioned that to encourage students in high order to digital technologies, online learning should

²⁵ T Anderson, *The Theory and Practice of Online Learning*, DOAB Directory of Open Access Books (Canada: University of Washington Press, 2008), 17.

²⁶ R A Cole, *Issues in Web-Based Pedagogy: A Critical Primer*, Greenwood Educators' Reference Collection (London: Greenwood Press, 2001), 14.

generate challenges to enable students to access new information, gain meaningful knowledge and use their metacognitive abilities.²⁷ Therefore, teachers have an essential role in designing the materials properly. However, the learning materials should appropriately designed to engage students and promote learning. The strategy and methods that teachers use in implementing online learning will affect the students' achievement towards the materials given.

However, it is a great desire to utilize digital technology as learning source in the virtual classrooms. Students doing distance learning with teachers by using some form of technology such as computer and smartphone to access the learning materials, that students use technology to interact with teacher and other learners. According to Kaur and Abas, individuals has used online learning to improve the quality of learning in utilizing e-learning resources and multimedia technologies.²⁸ Online learning can assist students with technology such as educational video conferences, instant messaging and discussion forums. Though, the mechanism of

²⁷ Anderson, *The Theory and Practice of Online Learning*, 16.

²⁸ A V S Kumar, *Optimizing Student Engagement in Online Learning Environments*, Advances in Educational Technologies and Instructional Design (2326-8905) (USA: IGI Global, 2017), 1.

online learning is different from conventional learning. Online learning is provided by using digital technologies such as digital tools and internet resources to help students understand educational materials. Additionally, students can use several applications due to online learning such as zoom, google meeting, learning management system (LMS), etc.

G. Types of online learning

There are two types of online learning have two types; synchronous and asynchronous. Based on Jaques and Salmon, the range of synchronous and asynchronous modes is used in online learning that will give students opportunities for interaction and participation in group work activities.²⁹ A synchronous is required to live meeting held with web conference software such as skype, zoom, WebEx, or google hangouts. Teachers actively engage in discussion, grading and feedback throughout the learning. Nevertheless, some of the students discover synchronous classes more motivating as the group is moving along a learning path together with discussing like in real time. Whereas asynchronous is learning follows a timeline with a set for assignment and quizzes, but

²⁹ D Jaques and G Salmon, *Learning in Groups: A Handbook for Face-to-Face and Online Environments* (USA: Taylor & Francis, 2007), 104.

without live meetings are required. The student can fulfil all the learning obligations by using email, google classroom, the LMS, or message board. Self-paced learning allows students to work entirely at their own pace, with no deadlines. This learning type does not involve teacher interaction in the forums but instead have computer-graded assignments and exams. It allows students to ask a question and have message boards where peers can discuss the content or questions in their own time.

H. The advantages and disadvantages of online learning

The implementation of online learning in schools finding advantageous and disadvantageous. In this digital era, digital technology offers enormous advantageous to the students in proper use and understanding of online learning. Although the digital world can be overwhelming and even dangerous because of some factors.

However, the advantage of online learning is that access to get the educational material is easy due to several application that supported the learning process. The significant factors in students' success in online learning include cognitive complexity. Students are expected to have

basic skills in using digital technologies for online learning such as knowing how to use digital devices, access information in the internet, and use the internet safely. Online learning simplifies students in understanding the educational material that student's get. Online learning can make it easier for understanding the materials.

Dhull and Arora have proposed that the advantages of online learning as follows: (1) online learning provides the opportunities to learn from anywhere in all of the world.³⁰ Therefore, students learning options are not considered by their geographic areas. (2) The online learning system allows students to determine their learning styles, content, goals, current knowledge and individual skills. It can stimulate, develop self-confidence and self-esteem, overcome many obstacles encountered by learners, personalize the learning experience, expand the scope of access and improve the learning experience, while helping students expand ICT skills. (3) By clicking a button, Students can find complete information, and access the information. Research has found that students in online learning courses have higher

³⁰ Indira Dhull and Sakshi Aurora, "Online Learning," *International Education & Research Journal* 3, no. 8 (2017), 32.

achievement levels than their peers. (4) Online learning is an effective way to learn because it less of money for spending money on buying the books. (5) Students have the free access to publish their works on websites or blogs. Publishing students work helps to form an archive of classroom heritage and successful products. (6) Students have an opportunity to develop their information communication and technology (ICT) skills. These skills will be helpful for them in professional life and marketable features in education. (7) Online learning allows students to work and study at their own pace without time constraints. Students are free to complete their course works according to their own will, and they can take as much time as they require without being termed as slow by their peers.

In the previous studies, Julaeha and Budiwati have found that students face some challenges in implementing online learning, such as the poor management and the quality of online class management, limited internet access and low activeness student's responses in discussions.³¹ Habibi et al in his research has referred that there are three barriers to

³¹ Siti Julaeha and Yulia Budiwati, "The Improvement of Online Tutorial Implementation at Universitas Terbuka (Based on SWOT Analysis)," 2013, 1–10, 4.

carrying out online learning: technological barrier - limited access to the internet, teachers having limited knowledge regarding technology integration, limited technology tools, and financial barriers – teachers and students have not been subsidized to purchasing internet credit, pedagogical barriers – lack of quality of content delivery and limited social interaction.³² In schools, teachers and students have their own smartphones devices, especially in an urban school for learning. Although students are not permitted to use a smartphone at school. It causes several factors to not allowing students to use their smartphones at school. Dhull and Aurora have mentioned that the disadvantageous of online learning is causes of several factors that are: (1) some students have no chance to interact face to face with the teacher, which can lead to poor connection on their places. Online learning can cause misunderstanding between students and teachers, which may have a detrimental effect on teaching-learning process and student's outcomes due to misinterpretation of tasks. (2) Students feel a lack of motivation while studying because they get distracted from learning about anything. However,

³² Akhmad Habibi et al., "Mapping Instructional Barriers during Covid-19 Outbreak: Islamic Education Context," *Religions* 12, no. 1 (2021), 10.

students who have lousy time management will easily procrastinate of their works. Thus, students tend to be more successful with the structure of conventional learning. (3) Educational institutions particularly do not anticipate the cost of internet connection that will cause the problem in the future of online learning. (4) Sometimes, teachers take less preparation of the materials and, lack of commitment indeed has a profound and negative impact on the quality of online learning. (5) Not all of the students are ready to do online learning because of the access of the digital devices and internet connection, students who require equipment feel ill-equipped to use it.³³

³³ Dhull and Aurora, "Online Learning", 33.