

ENGLISH FOREIGN LANGUAGE DIGITAL LITERACY AT PESANTREN BASED SCHOOL IN INDONESIA: A SYSTEMATIC RESEARCH REVIEW

Wardah An Nuriyah¹, Nur Afifi²

Institut Agama Islam Negeri Kediri, Indonesia

¹ wardahannuriyah@gmail.com, ² nur.afifi@iainkediri.ac.id

Abstract

The advancement of information and communication technology has been greeted favorably by various elements in Indonesian education, including Pesantren with the aim of instilling the concept of digital literacy for students. This study uses a systematic review, namely the research process by identifying previous research with systematic analysis methods by identifying literature in the form of journal articles obtained from Google Scholar. This method has been used to provide in-depth research and perform basic analysis, assess and synthesize complex thoughts to draw conclusions from the results of analysis of literature data, and answer problems efficiently, clearly, and relevantly. From the results of a review of several journal articles, it can be seen that most of the modern pesantren-based Islamic boarding schools have received fairly good digital literacy education. Digital support and facilities have also been provided. However, they also have problems with timing, individual digital skills, and an unstable curriculum. Regarding the review of the English learning process, the provision of digital training for students needs to be improved. Even though there are many challenges, students must be ready to implement them, so they are not left behind by increasingly sophisticated technological advances.

Keywords: EFL; Digital Literacy; Pesantren

INTRODUCTION

The presence of the leap in digital technology has brought significant changes to political, educational, and socio-religious life in Indonesia (Jurriens, 2017). In the political area, technology helps to make the public participate in the development of government, and obtain information related to government in a transparent manner. The use of digital technology in education is expanding quickly and changing how knowledge and information are transmitted both traditionally and digitally using platforms like blogs, social media, email, and video tutorials (Campbell, 2020). Digital technology in society makes a variety of religious resources freely available to the general public in the socio-religious sphere (Indra, 2019). Possibly the most significant innovation in the field of education in the digital age is this (Wiranata, 2019). Advances in information technology are creating both opportunities and challenges for the world of education, including Pesantren-based institutions. This condition requires Pesantren to adapt. Pesantren must adapt by comprehending the evolution of how technology evolves (Dakir, 2020). It is a requirement of 21st-century education and aims to help students acquire 21st-century skills to better respond to developments and changing times. According to a document produced by EnGauge 21st Century Skills, "literacy in the digital age" is one of the most important areas of his 21st-century education. According to experts, the concept of digital literacy is considered necessary for users to access and manage information with the capacity to locate, interpret, assess, and produce content in different contexts. (Nurjanah, 2018). Along with the development of technology, the concept of digital literacy also emerged (Nash 2020).

While in the context of Pesantren education, Ja'far, A (2019) argues that in the scope of religious communities, digital technology has provided different types of religious data that can be available to the general public, this shows that digitalization in the world of education also plays a role in providing convenience to enable everyone to access reference materials via search engines. Based on its objectives, digital literacy is utilized for its main purpose to promote independent learning, develop digital literacy learning strategies, and introduce an effective and productive literacy learning environment (Wong, 2018). It can be inferred from this that using digital literacy to develop student skills is considered highly strategic. Based on the data obtained, it was recorded that in 2020 alone, Internet users in Indonesia reached 196 million, about 72% of the total population. This confirms that digital literacy is a primary need for students as a source of literacy learning as well as the output of various literacy works produced. Digital literacy is seen as a breakthrough regarding access to student competency development to maximize technology while reaching a wider audience so it is considered important and of long-term importance for improving the quality of Islamic boarding schools (Serdyukov, 2017). This also means that the digital literacy culture in the Islamic boarding school environment is also interpreted as a set of perspectives that students actively use to actualize and interpret various content created on various digital media platforms (Potter, 2018). In addition, digital literacy can also be used in the modernization of Islamic boarding schools to transform digital-based education models. This can be achieved by enabling unfettered access to information available in the digital world, such as news, e-books, magazines, and video tutorials (Mukhlisin, et al., 2021). According to Kholili (2021), digital literacy improves students' ability to access and use a variety of digital information and knowledge sources, including e-books, e-papers, and also e-journals. As supported by Kholili (2021) the development of literacy activities requires the operation of various computer software.

Apart from this statement, the rapid development of information technology has created a gap among students because Islamic boarding schools generally limit students from using digital media in the learning process both in pesantren and at school. This contrasts with the statement of Yazid (2018), who describes pesantren as currently trying to open up in more transformative and progressive directions and open to the outside world. This openness is offered to increase the Islamic boarding school's academic tradition and modern scholarship. But basically, there are still many pesantren that apply this rule. This is because not all pesantrens have the same policies, so the presence of digital literacy in Pesantren is still new (Makrufi, 2017). With this limitation, it is certainly felt by students who are carrying out learning at school. At school, students not only struggle with religious materials, such as those found in Islamic boarding schools, but they will also encounter other general lessons, such as English as a foreign language which is also done digitally for students in schools and even in Islamic boarding schools. Schools that integrate modern curricula in language development, because in this global age, learning a foreign language is essential for students (Aulia, 2021).

This is evidence that digital literacy in the environment is not only used in the context of religious teaching which still maintains the traditional learning system while keeping classical Islamic books (commonly known as the Yellow Book) as the core of education without integrating them with general knowledge (Ihsan, 2020), but also developed in other scientific fields. The changes taking place today are nothing more than adapting or adapting to the development of science and meeting the various demands and also needs of the times. In terms of activities and forms, the existence of pesantren as educational institutions managed by kiai and santri varies from place to place (Ritonga, 2020). This is demonstrated by the presence of several Islamic boarding schools that have been altered and self-development both in the educational system and the curriculum (Ali, 2019). The same thing was conveyed by Muid

(2019) who stated that Islamic boarding schools as a foundation for Islamic educational institutions in order to meet the demands of the current digital era, countries must transform their education systems in a more advanced direction.

Related to the statement above, research findings on digital literacy obtained in Pesantren-based schools have so far paid more attention to how digital literacy can have implications for students studying in Pesantren schools themselves. Furthermore, the study includes research on how *santri* can receive information, knowledge about religion, and digital-based da'wah that can be developed by Pesantren in non-formal contexts. In this case, Pesantren-based (formal) schools are not given much attention, where students need digital literacy in the form of technological means to support the learning system, especially English. In addition, another study raised the discussion of English language learning strategies in Pesantren-based schools in the journal Millah, (2019). These studies can form the basis for writing this article well. On the other hand, this research is a form of development from previous studies, where this research is presented in a complete version in detail about the digital literacy that is present in Islamic boarding school students in teaching English in Pesantren-based schools.

Based on this background, the goal of this paper is to complement and develop previous studies concerning the application of digital literacy in schools within the scope of Pesantren. However, this study reviews more broadly the application of digital literacy by students in school, by focusing more research on learning English at a Pesantren-based school. The purpose was obtained because this research was motivated by the statement that digital literacy serves as a means for academic encounters between students in a Pesantren-based school and the outside world of Pesantren and provides opportunities for students to manage information as much and as well as possible. This is a spear where students not only learn to develop information and language communication; but also cross-culturally bridge students to learn about the outside world so as not to be left behind in the modernization era as it is today.

METHOD

A systematic literature review was used in this study by identifying relevant previous studies. Barricelli et al., (2019) argue that a systematic Literature Review; or so-called SLR is a systematic review of the literature with the goal of identifying, evaluating, and interpreting the findings of primary studies in order to provide the most complete list possible of all published studies related to a particular field of study. This study employs a data analysis method based on the discovery of pertinent literature as a search process through Google Scholar, with an official website address, <https://scholar.google.co.id>.

The goal of this literature study research is to obtain a theoretical framework that can aid in the solution of the problem being studied in order to reveal concepts relevant to the case, especially in this study to study more deeply about the digital literacy of students in English language learning at Pesantren based school.

From the presentation of these objectives, the Author follows the guidelines for the implementation of the literature review provided by Khan (2003) for the SLR procedure which consists of 5 stages as follows;

Step 1. Framing Questions for a review

In the field of education, advances in information technology create both opportunities and challenges, including Pesantren-based school. Pesantren must be able to open up in welcoming the digital era as it is today. However, some students still find many obstacles in maximizing the application of technology and the acquisition of qualified digital literacy in the context of Pesantren. Therefore, The purpose of this study is to assess students' digital literacy, especially in EFL learning in Pesantren-based school

Step 2. Identifying relevant work

The second stage is to identify the relevant work broadly and thoroughly by selecting and compiling the appropriate orderly. The source of research data obtained is in the form of articles or journals that are relevant to the topic. Search for such data using the Google Scholar database. To facilitate this process, the literature obtained will be adjusted to the key items used in this study, namely "digital literacy", "Pesantren-based school" and "EFL".

Step 3. Assessing the quality of studies

After the literature selection process, this study applies a study quality assessment, namely adding quality assessment parameters to more accurately filter the literature. Several inclusion and exclusion criteria are used to ensure the quality of the literature submitted based on the selection and rejection of literature (inclusion and exclusion criteria). The inclusion criteria are as follows;

- a. Problems of students with technological limitations
- b. Studies conducted at the school level by students
- c. Learning takes place in Pesantren
- d. Literature published between 2017-2022

While the exclusion criteria are as follows;

- a. Students have no problem with technological limitations
- b. Studies are carried out at different school levels
- c. Learning does not take place in Pesantren
- d. Other literature

Step 4. Summarizing the evidence

Based on the results of a literature search through the database, namely Google Scholar, using the adjusted keywords, namely "EFL Student's Digital Literacy at Pesantren-Based School", obtained 574 research journal titles with a publication year limitation between 2017 and 2022. The researcher then screened based on the abstract and inclusion criteria, it was found that there were 15 titles that were used as references and included in the reference of this study. 15 of these titles have a tendency more towards the two categories above, namely 7 journals leaning towards the EFL students' digital literacy category, while 8 journals for the category of EFL Digital Literacy Based School.

Step 5. Interpreting the findings

The fifth stage is to interpret the discovery of existing data using content analysis. In this analysis, "data categories" are used in determining whether the content analysis is quantitative, quantitative, or even mixed methods. In the results of searching for data on google scholar concerning students' digital literacy in English language learning in Islamic boarding schools, this study received 20 pieces of literature that met the criteria

RESULTS AND DISCUSSION

Results

Articles were selected according to the five stages of the Systematic Review carried out earlier. By the process of selecting previous research studies, it is carried out by looking at titles, keywords, abstracts, and additional texts and obtaining the results of the main study which

will be used for further analysis review. From the process, it resulted in a total of 15 articles categorized as relevant. Information about the results obtained from these journals is then grouped into two types of review categories; EFL Student's Digital Literacy and Digital literacy in Pesantren-based school. Each of these categories is then reviewed more deeply by looking at the issues needed for further analysis.

Studies and respective constructs

Table 1

Construct	Number of research
EFL Student's Digital Literacy	7 studies (35%)
Digital Literacy at Pesantren-based school	8 studies (40%)

This systematic review study aims to summarize the results of previous research from 10 articles that have been further analyzed related to the digital literacy abilities of students in EFL learning in Pesantren-based schools. Through this topic, researchers enlarge the argument for obtaining broader information by classifying two main constructions, namely EFL students' digital literacy and Digital literacy at Pesantren-based schools. Between the two constructions, the study of the first construction produced considerable results, namely (7 articles; 35%), followed by a study of the second construction namely (8 articles; 40%). Therefore, there are two objectives in this study, namely to identify the competencies of digital literacy from students of Pesantren-based school, the level of digital literacy of students in EFL learning in schools, and to identify the challenges and difficulties of applying technology in supporting the literacy skills of Pesantren-based school students.

Thus, from the analysis of several previous studies from a systematic literature review, the results of journal reviews were described in accordance with the categories of digital literacy of EFL students and Digital literacy at Pesantren-based schools.

The digital literacy of EFL students

In this discussion, an in-depth analysis was carried out related to the problems raised by how the students grade in digital literacy and its use in EFL learning. To determine the level of digital literacy among students, It is important to focus on the various types of competencies that students must have in supporting their digital literacy skills. The following is a presentation of student competency maps in accordance with previous research findings.

Table 2. *Students' digital literacy competence*

Findings	Competencies in Digital Literacy		
	Information Literacy	Media Literacy	ICT Literacy
Agnesia (2021)	Able to use Google in browsing, searching, filtering, and evaluating the required data according to the topic to be discussed	Able to operate computer/laptop / mobile phone properly and operates Ms. Word	1. Able to use Google Classroom and Google Calendar as a means of task reminder 2. Able to use WA and Zoom as a means of communication

Alakrash (2021)	Able to use a personal Blog in English. Able to use Google Classroom and Google docs to share information	Able to operate computer / PC / mobile features properly	Able to access and use Youtube, skype /zoom /google meet, Grammarly /grammar checker, crossword/puzzle, and online website
Durriyah (2018)	Able to create and manage personal Blogs and share writings and stories of student activities in English	Able to operate computer / PC / mobile features properly as well as edit images/documents and share links from the web to applications	Use Facebook closed groups, blogs, Skype and WhatsApp to interact, discuss and collect tasks
Eryansyah (2019)	Able to use Word processing, the internet, Wiki, voice chat, and electronic dictionaries in finding other sources of information related to language	Some students are still low on operating computers and accessing the internet. But they are interested and comfortable in learning to use computer devices	
Jonathans (2021)	Able to communicate and share information via English messenger, video conference, and live streaming	Capable of utilizing and managing E-learning in the learning process in the form of personal, group or pair	
Noviani (2021)	Able to use Instagram in selecting information, critical thinking, cultural and social understanding, personal safety, and sociability	Able to operate computer / PC / mobile features properly and create and edit creative videos to be uploaded through the Instagram application	
Rusmanayanti (2021)	Able to listen to English digital audio with focus without stopping (skipping)	Able to operate computer / PC / mobile features properly	Able to access Youtube as a source of audiobooks /podcasts for students to listen to in EFL listening learning

After knowing the translation of students' competencies in digital literacy, it is necessary to see how the application of digital-based learning in EFL classes is in accordance with the outcomes of previous studies' data findings

Table 3. *Digital literacy in EFL class*

Research	Digital Literacy in EFL Class	Challenge
Agnesia (2021)	Digital literacy praxis applied in the English language learning process is carried out from beginning to end, analyzing and evaluating information, responding to critical questions, and also	The challenges are technical issues related to connections, digital devices used, and applications and the gap in students' digital competencies between those

	providing projects to analyze song lyrics to students	familiar with technology applications and not.
Alakrash (2021)	Students use Youtube (listening skills), skype/zoom/google meet (speaking skills), Grammarly/grammar checker (writing skills), crossword/puzzle (vocabulary skills), and online websites (reading skills)	Although today's EFL students are digital natives, they still lack digital knowledge and skills.
Durriyah (2018)	Conduct online learning via Facebook, Skype, and WhatsApp to discuss, send materials, and collect assignments	There are limitations in mobile data in accessing these applications
Eryansyah (2019)	EFL classroom learning has largely made ICT a key tool. Supported by the frequency with which students use internet applications trough computer has been high and achieved the majority results	According to the findings of this study, low digital literacy skills of EFL students are caused by the application of ICT not yet optimally
Jonathans (2021)	EFL classes use the E-learning learning model with the Suggestopedia method by using Video, interactive talks, music, and other features of digital tools	Because it uses an e-learning model, social interaction and greeting students of the psychological part of cognition feels less than ideal
Noviani (2021)	EFL classroom learning using the Instagram app. It aims to allow students to access study materials easily.	Students are worried about losing confidence when communicating and commenting in regular classes
Rusmanayanti (2021)	In this article, EFL learning focuses on listening using the digita application in the form of audiobooks	Students find it difficult to hear foreign words on audiobooks and lack of concentration

Digital Literacy at Pesantren-Based School

EFL Students Digital Literacy at Pesantren-based school

In the second construction, researchers limited the study's focal point to how the EFL students' digital literacy developed in school under the auspices of Pesantren.

Table 4. *Digital literacy in EFL and the challenges of adopting Digital Literacy*

Researcher	Skill	EFL Digital Literacy	Challenge
Hairani (2022)	Speaking, Pronunciation	Using a modeled Android-based English learning app which includes the stages of conception, design, collection of materials, assembly, testing, and distribution	–
Handayani (2019)	Listening literacy	Using a digital podcast start-up application by choosing the best storytelling method in English class	It requires technological literate in operating podcasts even though it is very easy to use

Herdiawan (2021)	Reading, Writing	Online or virtual learning such as Quizzes, Kahoot, Duolingo, YouTube, Zoom, and Google Meeting. And learn to write using WhatsApp and Instagram	A large percentage of students do not have access to the use of learning technology and a culture of literacy that is lacking
Jayadi (2022)	Listening, Reading, Speaking	Using 2D-Based "English Conversation" animation by Frame Technique to deliver English material and interest students	The development of D2-based English conversation animation videos is still limited to certain materials
Lutfi (2022)	Grammar, Speaking	Using the Adobe Flash CS6 application with the MDLC (Multimedia Development Life Cycle)	—
Ulfah (2022)	Speaking (Public Speaking)	Digital training in an Islamic boarding school carried out massively and consistently to meet the 7 components of digital literacy	Immature digital literacy curriculum must be changed in learning and providing information resources
Wijayatiningsih (2021)	Speaking	Introduction and digital implementation using Zoom, speech using a video recorder, and using google drive and google form	Diverse student abilities, and English (speaking) teaching materials that are not fully ready
Wuriyanti (2022)	Vocabulary, speaking, grammar	Proportional methods for flexible learning that provides independent learning	Some students still have learning difficulties and a less attractive learning atmosphere

Discussion

From the results of the analysis of several previous research articles sourced from literature systematics, the researcher explained the results of journal reviews according to the categories of EFL students' digital literacy and Digital literacy at Pesantren-based school.

Students' Digital Literacy competence

Referring to the context of digital literacy competency types, most of the EFL classes that have been studied have equipped students to master 3 types of existing digital literacy competencies, namely information literacy, media literacy, and ICT literacy. In this case, students need a camp in mastering Media Literacy to gain skills in mastering Information Literacy and ICT Literacy. Livingstone (2003) states that media literacy is “the ability to access, analyze, evaluate and create messages across a variety of contexts”. As proof that students' media literacy is quite capable is that most school students are able to operate computers/PCs and mobile phones well and master how to use Microsoft Word to create, edit and print documents containing learning materials, and create creativity materials by editing videos as a means of learning, and they are comfortable with this activity. If students are able to make video edits, then at this stage students have been able to make higher creativity by

utilizing existing digital media. From this, it can be seen that some students based on research have been able to develop their media literacy to support their information literacy and ICT skills in learning also because utilizing persuasive and thoughtful media and considering whether the information being presented is accurate are both necessary for media literacy (Semerci, 2017). This activity is supported by teachers when learning in EFL classes, the frequency of computer use by students has been high, this makes it easier for students to get and share information properly related to understanding English which will automatically support better social and communication skills; because the practice of media education combines theoretical understanding with instructional strategies (Landry, 2017). This is in accordance with the goal of media literacy to create citizens that are "well informed" and are capable of evaluating media content based on their comprehension of the relevant media (Eadie, 2009).

In the context of digital literacy, of course, information literacy and ICT are important points after students have good media literacy. Information literacy, according to the American Library Association (ALA) refers to a set of skills required to recognize when information is needed as well as the capacity to locate, assess, and use that information effectively. Information literacy also means a significant improvement in users' capacity to find, create, and share information (Iordache, 2017). It is believed that the Internet with complex information has become an important reference source for students. Therefore, the skills to select, evaluate and manage information are an important foundation for them to participate in learning activities (Gómez, 2020). In the existing findings from previous studies, most students have been able to interact, communicate, establish relationships, get information and express themselves through various digital means such as personal blogs that they write in English and interact with others through video conferencing or just sharing messages with their colleagues or teachers using electronic messages. That way, learning will be considered effective because it facilitates space for students to learn independently. (Jayusman, 2020) So that students feel free and flexible in studying and developing their digital literacy.

This is in line with the benefits of information literacy for students who are the focus of this study, where With the help of their information literacy skills, students can learn on their own and become less dependent on their teachers while also mastering the lessons being taught. If students have mastered media literacy and information literacy, it will be easy for students to build their skills in ICT literacy. ICT literacy includes all knowledge and skills in utilizing technology. According to Wijaya (2005) quoted from "ICT Literacy is the use of digital technology, communication tools, and/or networks to access, manage, integrate, evaluate, and create information," according to the International ICT Literacy Panel in the context of public functions. knowledge. It is in line with the statement from Catts (2008) that Utilizing information technology to find and gather information, assess information, modify (analyze and create) information, and communicate ideas is another definition of ICT literacy. These definitions are closely related to the findings of studies that have been conducted that most students or those who are associated with the "digital native" generation have been really able to access various digital applications, and various websites, as well as being able to use and make good use of their information sources. Student learning activities are more emphasized on how students process and utilize various digital applications during learning, such as students can use the YouTube application, to practice mastering the ability to listen to the language, as well as the use of Google applications (classroom and calendar) for assignment facilities from teachers who have been widely used in this year, and they master other familiar applications to support their language skills such as grammar checker, Grammarly as well as online websites that provide a lot of linguistic information they need.

In situations like this, to get accurate information for learning, students must use the right information search model as well. The model used is based on research by Ellis (1987) which

consists of 6 models as follows; *Starting* (performing a search or initial introduction to references), then *Chaining* (linking to an existing bibliography), *Browsing* (information seeking activities by means of semi-direct or structured searches), *Differentiating* (distinguishing information sources to filter information based on the nature of the information and quality of referrals), *Monitoring* (giving more serious attention to certain sources), and *finally Extracting* (making a literature review or report).

To develop the ability to gather information, students can also use other means of communication such as WhatsApp, Skype, or Zoom as well as other applications. Because basically literacy is how humans can read, write, speak and understand something critically and well then it is developed based on technological advances to become digital-based literacy or ICT literacy, then, can be defined as the capacity to create and manage information using digital technology and communication tools. to enable it to be used to benefit society (Rahman, 2020). From the description of ICT literacy above, it is the reason that using information and communication technology is one of the best ways to foster digital literacy. (ICT) (Mantiri, 2019).

Digital Literacy in EFL Class

In its application in the EFL classroom, digital literacy is directly formed from students' ability to learn to recognize various digital applications to meet the important information they need in learning which includes a variety of English abilities (listening, reading, speaking, writing, vocabulary, and grammar). These digital applications are also used by students to express themselves to get good information and digital communication needs. In accordance with the results of previous studies, communication using the web 2.0 platform has also changed interaction patterns that allow students to produce their own content and experience opportunities for expression using platforms such as blogs, youtube, Facebook, Instagram, and other online social networking sites. The content that can be shared also varies from text, images, and audio to video to convey information, ideas, or ideas to readers in cyberspace.

Based on the finding, digital literacy is very helpful for students in exploring themselves to further increase creativity, and critical thinking and develop their ability to speak English with the support of diverse sources of information from mastered digital media. English teachers here must also support the existence of various technologies that develop, especially applications that are known to students among them, such as WhatsApp, Google (google classroom, google docs and google calendar) as well as Wiki and other search media. These applications can well meet their learning needs from how they find information, and answers, as well as a place for task collection and a means of intensive communication between teachers and students. It is critical to learn how to find, comprehending and using online digital content. However, combining efficient instruction with enhancing students' Web search skills in the classroom is becoming more difficult (Spire, 2017).

In addition, there are many challenges and problems faced by students in growing literacy in this EFL class. Typically, students who are proficient in English are strong in language and textual skills but weak in computer skills. Additionally, students often attribute a lack of computer literacy to their discipline. This is in accordance with what Mantiri (2019) said regarding several problems that arise in digital practices in schools, including a lack of ability and experience in using technology, he provides solutions by distinguishing learning, as well as the power of technology, has the capability to adapt the students' need. However, it is often heard from students that they are not expected to be 'computer literate; because they are language students. This is related to the results of existing research, which show that there is a mass gap in terms of mastery of technology, and an internet connection and is supported by

the condition of EFL class students who are digital natives who do not master digital technology.

Currently, the digital native generation (younger generation), especially students, are exposed to various content from social media, and where those who do not have skills and sensitivity in filtering content will find it difficult to receive information. This generation is only able to access digital media without being balanced with the ability to obtain useful information for self-development. Students will find it easier to get information that is very diverse, both in terms of type, level of relevance, and level of validation. This raises various problems such as hoaxes and baseless news. The phenomenon of social media is certainly an inseparable part of student life in the modern era. The existence of societal media gives a picture as if the world has no boundaries. Even though basically in implementing EFL itself, they can improve their English skills in reading, writing, listening, and speaking by using social media and following various English-related content (Yuniar, 2022).

However, this can hinder students from developing information and knowledge of their language more broadly. In the opinion of the researchers, apart from the latest developments from various platforms, e.g. the popularity of smartphones and social media, the experience of users (students) as consumers of technology does not often lead to skills or an interest in using technology productively. In fact, According to Pratolo (2020), using computers and smartphones along with qualified teachers will help Indonesians become more digitally literate. From this case, it is necessary to re-encourage the frequency of using technology in the EFL classroom to familiarize and shape students who are accustomed to digital literacy without causing continuous dependence, but can still think critically and respond to any information selectively and as well as possible.

EFL Students Digital Literacy at Pesantren-Based School

For some people, Pesantren may be considered a scientific institution that does not accept the existence of digital literacy as a means of learning. But in fact, most modern Islamic boarding schools have supported the existence of digital literacy in each of their students in book or non-book learning, one of which is English learning. Based on the results of previous studies, Pesantren believes that English is an important component for students and must be studied well. This is in accordance with the concept from Aulia (2021) which states that foreign language proficiency is essential for students in this global era. even students in Islamic boarding schools are encouraged to integrate modern curricula. One of the practical ways of teaching English is with the support of literacy media. This is proof that Pesantren is now an educational institution that has been believed to be able to open up to the increasingly advanced world of globalization; because students are also entitled to technological advances. There is no boundary between the educational bases that are used as guidelines in adapting in this era, in accordance with what Muid said (2019) that pesantren as the cornerstone of Islamic academic institutions need in changing their academic system in a more experienced direction in order to the needs of the time and adjust in the current digital era. The endeavor to advance pesantren education itself includes ensuring that pesantren are digitally literate. Understanding the evolution of a time that has advanced with technological sophistication will help pesantren continue to adapt (Dakir, Zubaidi, and Hasanah 2020). With an understanding of digital literacy, it is hoped that pesantren won't turn into a hub for all types of false or misleading information that causes fatalities when using digital, necessitating the use of fact-checking techniques through a variety of tools (Falih, Sarika, and Hananto 2020).

EFL classes in Pesantren-based school certainly remain focused on the components of student abilities, namely listening, speaking, writing, reading, grammar, and vocabulary, each of which must be mastered by students. The support of several modern Islamic boarding schools is also seen in the various ICT training activities that must be carried out by students

consistently and massively accompanied by other support in the form of facilities that have been facilitated in most Pesantren-based schools even within the Pesantren itself, it that because The accessibility of ICT resources, particularly computers, has a significant impact on learning processes (Bingimlas, 2009). This is also based on Sadaf's statement (2020) that students' intentions to incorporate digital literacy were positively influenced by the availability of resources like computers and internet networks, as well as by the quality of the instruction, training, and opportunities for interaction with it in the classroom. Many teachers have conducted various experiments on the latest methods or digital media that are suitable for supporting EFL learning in Pesantren-based schools, and in its application, most students are enthusiastic and successful in fostering the spirit of learning and the rapid development of students in mastering English.

This is in line with the concept of digital literacy proposed by Widona (2020), where teachers must have the capacity for using and producing technology-based content, including information-finding and sharing, question-answering, interacting with others, and also computer programming. Based on the results of previous research, efforts have been made, including making an animated video on the topic "English Conversation" based on 2D using the Frame by Frame technique which was conducted at the Islamic Boarding School Al-Ikhlash II (international Islamic boarding school) to be able to provide solutions to improve language learning media to present various forms of language learning and conversation to improve listening and speaking abilities and will indirectly increase students' vocabulary and at the same time as a means of introducing information technology. In addition, the Islamic Boarding School's efforts to create English instruction using Adobe Flash CS6 application with the MDLC (Multimedia Development Life Cycle) method are implemented at the Syu'batul Lughah Al-Khoiriyah Language Dormitory (SLK) at Sukorejo's Salafiyah Syafi Islamic Boarding School, Situbondo, a high school with the concept of English Learning Media at the Language Dormitory SLK which can be accessed by students anywhere. The application of this method is applied to this Islamic boarding school because it is one of the rapidly growing language dormitories and has aspirations to help Islamic boarding schools in the world of informal English teaching with more creative and qualified learning media.

This all indicates that it is not taboo that technology can be applied and well received by Islamic boarding school students. They are also entitled to the same digital literacy as other students outside the pesantren. This is in line with the statement of Ganggi (2017) that digital literacy skills must be mastered by a large number of students to be a provision in the future in choosing and sorting information up to date, especially through social media which is widely available on smartphones and IOS. This cannot be separated from the important role of pesantren and teachers are the central role of the achievement of students' digital literacy. The school and also pesantren try to harmonize the limitations that exist in pesantren to be used as an advantage in applying technology in learning.

However, Pesantren is still an Islamic institution that upholds its culture, even though it has tried to open up to existing technological advances. There are still obstacles to the promotion of digital literacy that is carried out. Most of the obstacles are factors that limit the use of digital media, such as computers or mobile phones. In addition, there is also a lack of readiness of educational institutions and Islamic boarding schools in preparing and incorporating digital literacy in the educational curriculum that applies in schools based on Pesantren and Pesantren itself, resulting in the delivery of material and the implementation of EFL learning activities is not optimal. Although in reality, Pesantren has tried to provide complete facilities for its students such as computer and language laboratories, it requires insufficient time in exploring digital information by students. On the other hand, there are many media literacy gaps found by students who need massive training efforts to create digital literacy alignment to support

the literacy process and the application of new methods developed. In addition, training also be a crucial role on the development of the digital literacy. Boarding schools must be able to find formulas and materials that are correct and in line with the technology that students need at this time. This is done so that students are also comfortable and enthusiastic in conducting training and can easily apply their abilities using technology in EFL classes.

In overcoming this problem, Pesantren-based schools can follow four classifications of digital literacy-based learning, namely *Emerging, Applying, Infusing, and Transforming* (Anderson, 2010). In the first stage (*Emerging*), learning processes are explained to new students through instruments, software, and various other digital tools. At this stage, it emphasizes digital literacy for students. The second stage is *Applying*, namely the understanding and readiness of educational institutions in an effort to understand learning using digital media means by utilizing software and software media. The third classification is *Infusing*, where educational institutions have been capable of incorporating digital literacy to the pesantren-based school curriculum or pesantren curriculum itself. And the last stage is *Transforming*, where learning activities have implemented learner-centered (student-centered) and digital literacy has become a natural part of all teaching and learning activities in EFL classes in particular.

CONCLUSION

The aim of this research is to determine the students' level of digital literacy and EFL learning application in Islamic boarding schools. For this reason, the systematic method of the literature review was used by the researcher. This study chose 15 selected and synthesized journals. Furthermore, from the results of the review, it is obvious how the application and degree of students' literacy in the technology of students and the challenges can be seen. Most Islamic boarding school-based schools are currently improving and are more open to becoming modern institutions that are not left behind by technological advances. Students who attend secondary schools based on Islamic boarding schools are sufficiently supported and well facilitated in digital technology usage and information facilities, especially on the verge of learning English which is considered important for Islamic boarding schools in advancing student knowledge in modern times. However, the application of digital literacy in Islamic boarding schools is not without challenges, including limited time in using digital media, students' technological knowledge which is still lacking and also lack of readiness in preparing new curriculum. Even though it poses several challenges for both teachers and students, all parties must be prepared to implement it, because students have the right to be able to master technology today. Therefore, this systematic review was carried out on developments when putting into practice digital literacy that occurred in Islamic boarding schools because researchers hope that The findings of this study can be used as data and reference for related parties. For further research, it is hoped that it will not only look at the quality of teacher digital literacy, but also examine ways and efforts to develop this digital literacy and can be applied to various subjects in schools.

ACKNOWLEDGMENTS

Praise be to the presence of Allah SWT for all His grace and gifts, so that this journal can be completed. I am very grateful to my supervisor, Dr. Hj. Rohmani Indah, M.Pd., and Dr. Ary Setya Budi Ningrum, M.Pd., for the advice, support, continuous guidance, and always providing friendly and constructive suggestions and criticism. I also give a big thank you to my parents and friends who have supported and prayed for me all this time.

REFERENCES

- Aulia, A. N., Hadi, M. S., & Izzah, L. (2021). English daily conversation at Islamic boarding school in improving speaking skill of EFL student. *Ethical Lingua: Journal of Language Teaching and Literature*, 8(1), 80-85.
- Barricelli, B. R., Cassano, F., Fogli, D., & Piccinno, A. (2019). End-user development, end-user programming and end-user software engineering: A systematic mapping study. *Journal of Systems and Software*, 149, 101-137.
- Campbell, H. A., & Evolvi, G. (2020). Contextualizing current digital religion research on emerging technologies. *Human Behavior and Emerging Technologies*, 2(1), 5-17.
- Catts, R., & Lau, J. (2008). Towards information literacy indicators.
- Dakir, D., Zubaidi, A., & Hasanah, N. S. (2021). Membangun inklusifitas beragama melalui literasi digital di Ma'had Aly. *Jurnal Islam Nusantara*, 4(2), 258-269.
- Dakir, D., Zubaidi, A., & Hasanah, N. S. (2021). Membangun inklusifitas beragama melalui literasi digital di Ma'had Aly. *Jurnal Islam Nusantara*, 4(2), 258-269.
- Ellis, D. (1987). *The derivation of a behavioural model for information retrieval system design* (Doctoral dissertation, University of Sheffield).
- Falih, N., Sarika, S., & Hananto, B. (2020). Pelatihan Internet Sehat dan Desain Grafis Untuk Meningkatkan Literasi Digital di Pondok Pesantren Kota Serang.
- Ganggi, R. I. P. (2017). Pendidikan pemakai di perpustakaan sebagai upaya pembentukan pemustaka yang literasi informasi. *Khizanah Al-Hikmah: Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan*, 5(1), 121-128.
- Gómez-García, G., Hinojo-Lucena, F. J., Cáceres-Reche, M. P., & Ramos Navas-Parejo, M. (2020). The contribution of the flipped classroom method to the development of information literacy: A systematic review. *Sustainability*, 12(18), 7273.
- Ihsan, F. M., Permana, P. Y. E., Arifin, N. R., & Muhtadi, R. (2020). Islamic Boarding Schools Toward the Industrial Revolution 4.0; Opportunities and Challenges. *FIKROTUNA: Jurnal Pendidikan dan Manajemen Islam*, 11(01).
- Indra, H. (2019). Revitalisasi Pendidikan Keagamaan Islam Era Digital 4.0. *Tawazun: Jurnal Pendidikan Islam*, 12(2), 278-288.
- Iordache, C., Mariën, I., & Baelden, D. (2017). Developing digital skills and competences: A quick-scan analysis of 13 digital literacy models. *Italian Journal of Sociology of Education*, 9(1).
- Ja'far, A. (2019). Literasi Digital Pesantren: Perubahan Dan Kontestasi. *Islamic Review: Jurnal Riset Dan Kajian Keislaman*, 8(1), 17-35.
- Jayusman, I., & Shavab, O. A. K. (2020). Aktivitas Belajar Mahasiswa Dengan Menggunakan Media Pembelajaran Learning Management System (Lms) Berbasis Edmodo Dalam Pembelajaran Sejarah. *Jurnal Artefak*, 7(1), 13-20.
- Tapsell, R., & Jurriens, E. (2017). The political economy of digital media. *Digital Indonesia. Singapore: ISEAS–Yusof Ishak Institute Singapore*, 56-72.
- Khan, K. S., Kunz, R., Kleijnen, J., & Antes, G. (2003). Five steps to conducting a systematic review. *Journal of the royal society of medicine*, 96(3), 118-121.
- Kholili, Y. (2021). Challenges for pesantren in the revolution era of society 5.0. *AMCA Journal of Religion and Society*, 1(1), 8-12.
- Landry, N. (2017). Articuler les dimensions constitutives de l'éducation aux médias. *tic&société*, 11(1), 7-45.
- Livingstone, S. (2003). On the challenges of cross-national comparative media research. *European journal of communication*, 18(4), 477-500.

- Lutfi, A., & Hanifa, L. (2022). Pemanfaatan Media Pembelajaran Bahasa Inggris di Asrama Bahasa Syu'banul Lughoh Al Khoiriyah Menggunakan Software Adobe Flash. *JUSTIFY: Jurnal Sistem Informasi Ibrahimi*, 1(1), 43-50.
- Makrufi, A. D. (2017, November). The Islamic Civilization of the Abbasid Daula Period in Increasing the Interest of Reading Society (In The Digital Literacy Era). In *Proceeding of International Conference on Islamic Education (ICIED)* (Vol. 2, No. 1, pp. 21-28).
- Muid, A. (2019). Peranan Pondok Pesantren Di Era Digital. *At-Taahdzib: Jurnal Studi Islam dan Muamalah*, 7(2), 62-79.
- Mukhlisin, M., Isnaeni, F., Nurjaya, N., Mukhoyyaroh, M., & Masyhuri, A. A. (2021). Urgensi Literasi Digital Bagi Santri Milenial di Pondok Pesantren Rahmatutthoyibah Al Iflahah Gunung Kaler Tangerang. *Jurnal Pengabdian Kepada Masyarakat (JPKM)-Aphelion*, 1(2), 208.
- Nash, C. (2020). Report on digital literacy in academic meetings during the 2020 COVID-19 lockdown. *Challenges*, 11(2), 20.
- Nurjanah, E., Rusmana, A., & Yanto, A. (2017). Hubungan literasi digital dengan kualitas penggunaan e-resources. *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi Dan Kearsipan*, 3(2), 117-140.
- Mantiri, O. (2019). Digital literacy in ESL classroom. *Universal Journal of Educational Research*, 7(5), 1301-1305.
- Potter, W. J. (2018). *Media literacy*. Sage Publications.
- Pratolo, B. W., & Solikhati, H. A. (2020). The implementation of digital literacy in Indonesian suburban EFL classes. *International Journal of Scientific and Technology Research*, 9(1), 1508-1512.
- Rahman, A., & Firdaus, W. M. (2021, April). The Impact of Information and Communication Technology Literacy on Indonesian Student's Achievement. In *International Conference on Educational Assessment and Policy (ICEAP 2020)* (pp. 69-72). Atlantis Press.
- Ritonga, M. (2020). The existence of yellow books (Kitab kuning) as the sources of Islamic studies at Islamic boarding schools within the industrial revolution dialectics. *Available at SSRN 3752816*.
- Medlock, C., Spires, H., & Kerkhoff, S. (2017). Digital literacy for the 21st century. *M. Khosrow-Pour, Encyclopedia of Information Science and Technology*, 2235-2242.
- Sadaf, A., & Gezer, T. (2020). Exploring factors that influence teachers' intentions to integrate digital literacy using the decomposed theory of planned behavior. *Journal of Digital Learning in Teacher Education*, 36(2), 124-145.
- Safitri, T. N. (2020). Potensi Santri Dalam Transformasi Digital Literacy Memasuki Era Revolusi Industri 4.0 Di Pondok Pesantren Modern. *Mozaic: Islam Nusantara*, 6(2), 191-211.
- Semerci, N., & Semerci, Ç. (2017). The Effect of Teacher Candidates' Critical Literacy Levels on Their Media Literacy Levels. *Universal Journal of Educational Research*, 5(n12A), 13-18.
- Serdyukov, P. (2017). Innovation in education: what works, what doesn't, and what to do about it?. *Journal of research in innovative teaching & learning*, 10(1), 4-33.
- Setyaningsih, R., Abdullah, A., Prihantoro, E., & Hustinawaty, H. (2018, July). Implementation of Digital Literacy Through E-learning in Learning Process at Pesantren University. In *International Conference of Communication Science Research (ICCSR 2018)* (pp. 62-65). Atlantis Press.
- Wong, T. M. (2019). Teaching innovations in Asian higher education: perspectives of educators. *Asian Association of Open Universities Journal*.

- Yazid, A. (2018). Paradigma Baru Pesantren: Menuju Pendidikan Islam Transformatif. *Yogyakarta: IRCiSoD*.
- Yuniar, M. S., & Purnamaningsih, I. R. (2022). University Students' perception of Using Social Media for Learning English. *PROJECT (Professional Journal of English Education)*, 5(6), 1211-1217.