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# Research Trends Of Digital Literacy In English Language Learning: A Systematic Literature Review

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| A B S T R A C T | A R T I C L E   I N F O |
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| With the rise of digital literacy today, many educators use it to improve and hone their students' abilities in digital technology-based literacy. This study employs the Systematic Literature Review method and used the Dimensions software to search for data using keywords. The collected scientific articles are then analyzed to answer the research question: What are the research issues and themes in digital literacy research and how is English learning through digital literacy?.<br><br>© 2024 Edulib | |

## 1. INTRODUCTION

The advent and seamless integration of Information and Communication Technologies (ICTs) into various aspects of society have opened up unprecedented opportunities for swift and boundless access to vast, continuously updated information. This has revolutionized the way people live and work, providing them with an ever-expanding wealth of knowledge that remains readily available and constantly evolving (El Kadiri et al., 2016). Because of increasingly digital technological developments, the prevalence of digital literacy has grown over time. Similarly, literacy has now shifted to digital, replacing traditional literacy. The definition of digital literacy includes the ability to search, evaluate, create, and communicate using digital information, technology, and media (Techataweewan & Prasertsin, 2020). According to Walton (2016), digital literacy refers to the competence and skill set required to effectively navigate, utilize, and engage with information technologies and the Internet. It encompasses various abilities, such as finding, evaluating, using, sharing, and creating content using digital tools. The essence of digital literacy lies in confidently and critically employing information and digital technologies to foster growth and development across academic, personal, and professional spheres. A digitally literate individual possesses the proficiency to employ digital technology, communication tools, and networks to locate, evaluate, and use information from a diverse range of sources available through computers and the Internet. Furthermore, digital literacy enables individuals to comprehend and utilize information presented in various formats effectively, thereby enhancing their ability to perform tasks successfully within a digital environment.

In simpler terms, digital literacy refers to the capacity to navigate the digital landscape competently, enabling individuals to access, assess, and utilize information from the vast expanse of online resources. By being digitally literate, people can efficiently communicate, collaborate, and create content, not only for personal purposes but also for educational and professional development. Developing digital literacy is crucial in the modern world as technology continues to play a significant role in our daily lives, affecting how we learn, work, and interact with others. Thus, the term "digital literacy" refers to the capacity of a person to use, comprehend, assess, and engage in successful participation in the digital environment. Understanding information and communication technology is necessary for this, as are the abilities needed to access, assess, analyze, and critically think about information in a digital world. As technology and digitization have advanced quickly, so has the significance of digital literacy. Digital literacy is becoming into a necessary ability for participating fully in daily life, employment, education, and social interaction in a society that is becoming more and more connected to the world of the internet.

With the rise of digital literacy today, many educators use it to improve and hone their students' abilities in digital technology-based literacy. Especially when it comes to learning English, which is critical for international development. Digital literacy plays a crucial role in enhancing English language learning, as supported by various researchers and studies. In today's digital world of rapidly changing technologies and information overload, students must be coached rather than taught; in other words, students must be technically competent for today's industrial operations. English is not only regarded as a language of communication, business, and academia, but it is also regarded as the language of the Internet. The Internet has accelerated the rate of globalization. Digital English refers to intermediate and electronic versions of English in digital environments. Digital English and the Internet are, for the most part, inseparable. English students must, of course, keep up with international developments in information technology. According to Ahmadi (2018), the use of technology plays a key role

in language learning at their own pace, assists in self-understanding, does not halt in interactions with teachers, and creates high motivation in learners for effective language skills learning. The primary goal of teaching English is to prepare students to communicate in a global language that is increasingly digitally mediated in a variety of formats. Digital literacy offers valuable benefits, empowering students to think critically, identify credible information on the Internet, and trust the knowledge they receive and believe in (Arsari, 2022). These skills are essential for responsible and informed navigation of the digital world. As a result, digital literacy education should be promoted so that students' English learning does not become obsolete.

Several studies by many researchers have described the application of digital literacy in learning English in previous research. According to Menggo et al. (2021) research, understanding literacy is an important factor in daily life. An individual with adequate and accurate literacy can be actively involved in various fields of life, which is beneficial to the general public and the development of student potential. The study from Bader et al. (2021) revealed varied attitudes among students towards a new digital tool, primarily driven by its perceived ease of use rather than its learning-related potential. While some students recognized the benefits of the digital tool for formative assessment, the research finds the need for greater awareness and willingness among students to embrace the pedagogical aspects of digital technology to fully unlock its transformative potential in education. Also it is important that teachers use diverse images and sources to enhance online learning, particularly when students have already acquired digital literacy skills. By incorporating engaging and relevant content, educators can captivate students' interest in online learning, as evidenced by van Laar et al. (2020) research. This approach not only facilitates students' understanding and knowledge retention but also fosters a more dynamic and effective virtual learning environment. On the other hand, Kebritchi et al. (2017) emphasize the importance of considering the relationship between cognitive complexity, intellectual stimulation, and students' environment in online learning. Creating an engaging and stimulating learning environment can lead to increased student achievement in online education.

Although many previous studies have investigated digital literacy, little previous research has specifically investigated digital literacy in English learning with this method. Furthermore, this study employs the Systematic Literature Review method, which is not widely used by researchers. A systematic literature review is a rigorous and comprehensive research method used to synthesize existing knowledge on a specific research question or topic. It involves systematically identifying, selecting, evaluating, and analyzing relevant studies to provide an unbiased and well-rounded overview of the subject matter. The goal of this research study is to answer the question, "What are the issues and research themes in digital literacy research, and how is English learning through digital literacy?" The Dimension and VOSviewer applications were used in conjunction with the Systematic Literature Review method. This study contributes to the advancement of science, particularly English language education. Based on the discussion above, the purpose of this study is to identify research trends as well as to examine how digital literacy affects English learning. This study's findings are expected to provide useful information about digital literacy in English learning. These findings are hoped to be useful for English teachers, students, and future researchers.

## 2. METHODS

The goal of this study was to conduct a literature review to explore the research map on digital literacy as well as to examine how digital literacy affects English learning. This study employs the Systematic Literature Review method and uses the Dimensions software to

search for data using keywords. Searching for data in the Dimension software, researchers filter by paying attention to several things, such as the time span of publication, fields, themes and also open access to publications. Researchers concentrated on articles published from 2018 to 2022. The collected scientific articles are then analyzed to answer the research question: What are the research issues and themes in digital literacy research and how is English learning through digital literacy? The answers to these questions will be provided by Dimensions and VOSviewer software.

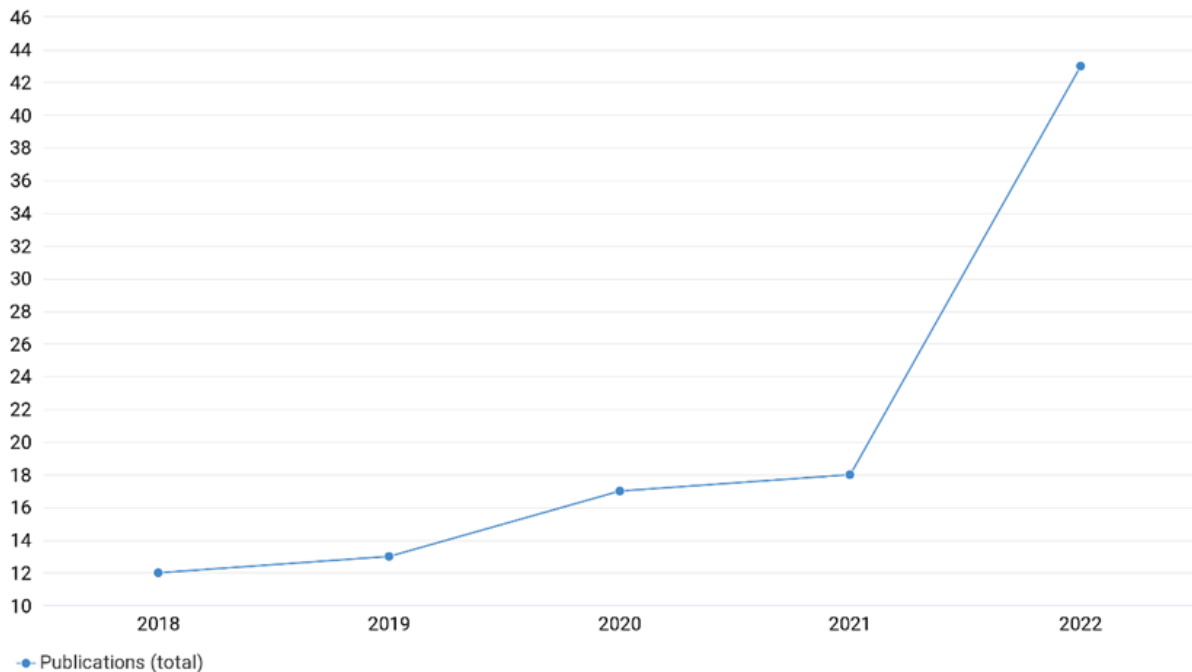## 3. RESULTS AND DISCUSSION
### 3.1. Publication Trend



**Figure 1**. The Number of Publications Published In Each Year

Learning English through digital literacy has recently become popular. According to Dimensions software data, there are 103 publications with a publication period of 2018–2022. Figure 1 clearly illustrates this upward trajectory, with a notable surge in the number of publications in 2022 compared to the preceding years. The rise of 43 publications in that year demonstrates a significant interest and investment in exploring the intersection of digital literacy and English language acquisition. Meanwhile, 2018 had the fewest publications in the previous five years, with only 12 publications. Thus, from 2018 to 2022, research on digital literacy in English language learning is increasing year after year. The relatively low number of publications in 2018 suggests that the topic was not extensively explored at that time. However, as technology continued to evolve and permeate various aspects of our lives, including education, researchers and educators began to recognize the potential of digital tools and resources in enhancing language learning experiences. Consequently, the subsequent years witnessed a remarkable increase in research efforts, aiming to understand and harness the benefits of digital literacy in English language education.

The rising popularity of digital literacy in English language learning can be attributed to several factor: (i) The ubiquity of digital devices and the internet has made accessing English language materials and resources more convenient and widespread. Learners now have an array of digital platforms, online courses, language apps, and multimedia content at their

disposal to support their language learning journey; (ii) Digital literacy offers learners opportunities to engage with authentic English language content, such as articles, videos, podcasts, and social media posts. This exposure to real-world language use helps improve learners' listening, reading, and comprehension skills, while also enhancing their cultural understanding; (iii) Digital tools provide interactive and personalized learning experiences. Language learning apps, online forums, and virtual classrooms enable learners to practice their speaking and writing skills, receive instant feedback, and connect with fellow language learners and native speakers worldwide. This fosters collaboration, cultural exchange, and a sense of belonging within the language learning community.

As the research on digital literacy in English language learning continues to grow, educators and policymakers are becoming increasingly aware of the need to integrate digital literacy competencies into language curricula. By equipping learners with digital literacy skills, they can navigate the digital landscape confidently, critically evaluate online information, communicate effectively in digital contexts, and adapt to the ever-evolving digital landscape. The upward trend in research publications on digital literacy in English language learning signifies the growing interest and recognition of its value in language education. The advent of digital technologies has opened new avenues for language learners to engage with English language resources, collaborate with others, and enhance their language skills. As we move forward, it is crucial to continue exploring innovative ways to leverage digital literacy to empower learners and facilitate effective English language acquisition in the digital age.

## 3.2 Publication Citation

| Years of Publication | Publications | Citations | Percentage ≥ 1 citations |
|---|---|---|---|
| 2018 | 12 | 1 | 75,00 |
| 2019 | 13 | 21 | 69,23 |
| 2020 | 17 | 41 | 58,82 |
| 2021 | 18 | 74 | 50,00 |
| 2022 | 43 | 139 | 16,28 |

**Table 1.** Publication Citations

Publication citations are the number of times that publications have been cited by other publications in the database. The correlation between the number of publications and the number of citations is an important aspect to consider in assessing the impact and influence of research in the field of digital literacy in English language learning. The visualization shows the percentage of publications with ≥1 citations published in each year. As Table 1 indicates, there is a relationship between the number of publications in a given year and the subsequent citations received by those publications. Table 1 shows that the fewer the number of publications per year, the fewer those who cite these publications. When fewer publications are released in a particular year, it follows that there may be fewer opportunities for those publications to be cited. This can be observed in the table, where the year with the lowest number of publications, 2018 with only 12 publications, also received the fewest citations. The limited number of publications available in that year might have contributed to a smaller pool of research for subsequent studies to reference and cite.

Conversely, the year with the highest number of publications, 2022 with 43 publications, also received a substantial number of citations with 139 citations. This suggests that the increased volume of research in that year led to a greater chance of being cited by other

researchers. The larger pool of publications provided more opportunities for scholars to refer to and build upon existing research, resulting in a higher citation count.

The relationship between publication count and citation count underscores the importance of producing quality research that can contribute meaningfully to the field. While a higher number of publications can increase the likelihood of being cited, it is the relevance, significance, and impact of the research that ultimately drives citations. Researchers should strive to produce rigorous and innovative studies that address key issues and provide valuable insights into the integration of digital literacy in English language learning. It is worth noting that citation counts alone do not provide a comprehensive measure of the impact of research. Factors such as the reputation of the journals or conferences where the publications appear, the expertise of the authors, and the relevance of the research to the wider academic community also play a role in determining the significance and influence of a study.

The relationship between the number of publications and the number of citations reflects the dynamics of research in the field of digital literacy in English language learning. The higher the publication count, the greater the potential for citations, highlighting the importance of generating quality research that contributes to the body of knowledge. However, it is essential to consider multiple factors when assessing the impact and influence of research beyond citation counts alone.

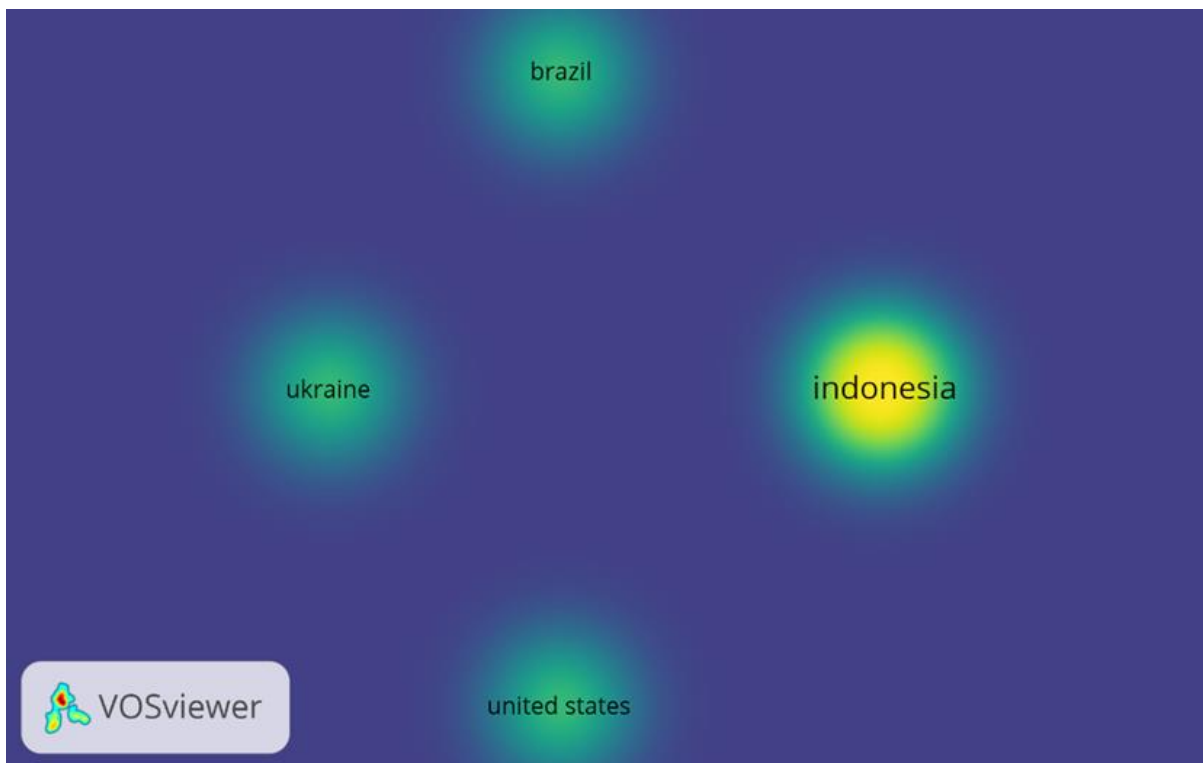### 3.3 Co-authorship and Country



**Figure 2.** Visualization of Co-authorship by Country

The distribution of co-authorship and the involvement of different countries in research on digital literacy in learning English, as depicted in Figure 2, provide insights into the collaborative nature of this field of study. It is clearly illustrated that these are the names of countries that publish according to the theme of this research, namely digital literacy in learning English. The map highlights the countries that have made significant contributions to the research theme, with Indonesia emerging as the country with the highest number of

publication contributors. The presence of clusters, as identified by the VOSviewer software analysis, indicates certain patterns of collaboration among countries. Cluster 1 is Australia and Indonesia, Cluster 2 is Brazil. Cluster 3 is occupied by Ukraine and finally Cluster 4 is the United States.

Cluster 1 consists of Australia and Indonesia, suggesting a close collaboration between these two countries in researching digital literacy in English language learning. This collaboration driven by shared interests, expertise, or institutional partnerships, leading to joint research efforts and publications. Cluster 2 represents Brazil, indicating its distinctive contribution to the research theme. The presence of a separate cluster for Brazil suggests that the country has a unique research landscape and has developed its own expertise and approaches in investigating digital literacy in the context of learning English. Ukraine forms Cluster 3, indicating its involvement in research on digital literacy in English language learning. The inclusion of Ukraine in this cluster suggests collaborations and research initiatives specific to this country, potentially driven by local educational contexts and interests. Lastly, Cluster 4 consists of the United States, reflecting its significant role in contributing to research on digital literacy in learning English. As a global leader in educational research and technological advancements, the United States is likely to have a strong presence and extensive collaborations in this field.

The presence of these distinct clusters underscores the international nature of research on digital literacy in English language learning. It highlights the diversity of perspectives, experiences, and contexts brought by different countries, leading to a more comprehensive understanding of the topic. Collaborative research efforts between countries can facilitate knowledge exchange, the sharing of best practices, and the development of innovative approaches to integrating digital literacy in English language education. It is worth noting that the country distribution presented in Figure 2 and the identified clusters may vary over time as new research is conducted and collaborations evolve. Monitoring and analyzing the participation of different countries and the formation of clusters can provide valuable insights into emerging trends, areas of expertise, and opportunities for future collaboration in the field of digital literacy in learning English.

The distribution of co-authorship and country involvement in research on digital literacy in learning English demonstrates the collaborative nature of this field. Countries like Indonesia, Australia, Brazil, Ukraine, and the United States have emerged as key contributors, forming distinct clusters that reflect their unique research landscapes and collaborative networks. Such collaborations enhance the depth and breadth of knowledge in the field and promote the exchange of ideas and best practices among researchers worldwide..
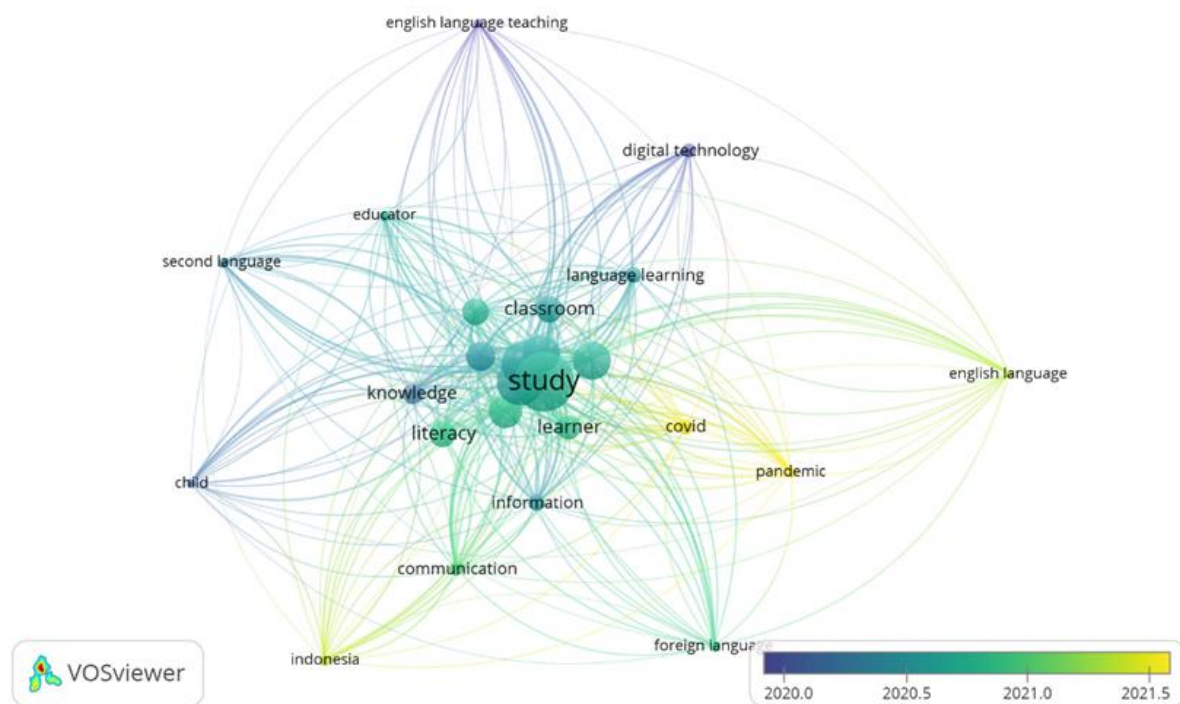
**3.4 Research Fields Mapping**



**Figure 3.** Visualization of Research Fields

What is depicted in Figure 3 is a map showing the areas of publication that provides a visualization of the research fields related to digital literacy in learning English. The map depicts various areas of publication, with the most prominent field having a link strength of 490. Additionally, several other fields are represented on the map, including digital literacy, COVID, pandemic, second language, information, English language, communication, digital technology, literacy, English language learning, and numerous other smaller components. The diverse range of research fields depicted in Figure 3 reflects the multidisciplinary nature of digital literacy in learning English. It showcases the interconnectedness and interdependencies between various domains of knowledge and research within this subject area.

Digital literacy emerges as a central field, underscoring its pivotal role in the context of learning English. As technology continues to shape educational landscapes, it is essential to investigate the impact and implications of digital literacy on language learning processes and outcomes. This field encompasses the exploration of digital tools, resources, and competencies that facilitate effective language learning and foster digital citizenship.

The inclusion of COVID and pandemic as fields on the map indicates the significance of understanding how the global health crisis has influenced the landscape of language education and digital literacy. The pandemic has accelerated the adoption of digital technologies in educational settings, necessitating a closer examination of their role in supporting remote learning, online language instruction, and the overall digital transformation of language learning environments.

Other fields such as second language, information, English language, and communication demonstrate the interplay between language acquisition, information processing, and effective communication in the digital realm. These fields encompass research on language

proficiency, linguistic development, information literacy, and the ways in which digital technologies mediate language learning and communication processes.

The presence of digital technology as a distinct field emphasizes the exploration of specific digital tools, platforms, and applications that facilitate language learning, foster engagement, and enhance learner autonomy. It involves investigating the integration of technologies such as mobile devices, educational software, language learning applications, virtual reality, and social media platforms into language learning contexts.

Furthermore, the inclusion of literacy and English language learning as separate fields highlights the broader context within which digital literacy operates. It recognizes the importance of literacy development and the specific challenges and opportunities faced by English language learners in the digital age.

The multitude of smaller components on the map likely represents specific subfields, niche research areas, or emerging topics within the broader domain of digital literacy in learning English. These smaller components could include areas such as gamification in language learning, online assessment, blended learning environments, digital storytelling, computer-assisted language learning, and many other specialized aspects of research within this field.

In conclusion, Figure 3 provides a visual representation of the research fields associated with digital literacy in learning English. It highlights the multidisciplinary nature of the field, showcasing the interconnectedness of various domains and the diverse range of topics and subfields within digital literacy. This mapping of research areas helps researchers identify key focus areas, explore synergies between disciplines, and foster collaboration across diverse fields to advance knowledge and innovation in the realm of digital literacy in learning English.

## 4. CONCLUSION

The advent of technological advancements has revolutionized the landscape of education, significantly altering the methods and modes of learning. In this era, possessing digital literacy has emerged as a fundamental skill essential for navigating the modern world (Cisotto & Pupolin, 2018). Year after year, digital literacy in English learning becomes more popular. Based on research trends, it is possible to conclude that publications about digital literacy have increased in the last five years. According to the publications, Indonesia has the highest number of co-authors. Furthermore, based on the findings of the various studies summarized by the researcher, it is possible to conclude that digital literacy is a dynamic combination of mindsets, behaviors, and skills used to change and improve undergraduate students through the use of digital information, technology, and media. The development of digital literacy among students in foreign language teaching is very important because it prepares students for life in a new world, where new knowledge and professions emerge, and where the ability to master modern technologies is played, which is becoming an important part of everyone's life. The development of digital literacy in the context of teaching English achieves many goals and objectives in the classroom because it increases student motivation, develops communicative and intercultural competence, and allows students to apply their knowledge in everyday situations. Furthermore, digital literacy and English proficiency are two reciprocal variables. Students are motivated to improve their English learning habits when they are proficient in digital literacy. The ability to communicate effectively in English, on the other hand, aids students in developing skills or competencies in digital literacy.

## 5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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