## SMART SOCIETY 5.0: THE CHALLENGES FACED BY THE ENGLISH TEACHERS IN EMPLOYING DIGITAL LITERACY WITHIN ENGLISH LANGUAGE TEACHING

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#### ABSTRACT

Smart Society 5.0 requires digital literacy to be essential skill in ELT context. The duties of English teachers include helping students become digitally literate as well as utilizing technology to help them use it appropriately and successfully. This research, thus, aimed at investigating the challenges faced by the English teacher in integrating and implementing digital literacy into ELT. The respondents of this research were 33 English teachers working in both public and private senior high schools around Denpasar, Bali. Moreover, the research was designed as a qualitative research wherein the research data were collected by means of online open-ended questionnaire, interview and focus group discussion. To analyse the garnered data, the qualitative analysis was employed involving data reduction, data presentation and conclusion. It was found that varied challenges faced by the English teacher in implementing digital literacy in ELT. The acknowledged challenges were caused by several factors which came from internal and external factors of the English teacher.

Keywords: digital literacy, english language teaching, smart society 5.0

#### ABSTRAK

Smart Society 5.0 mengharuskan literasi digital menjadi keterampilan penting dalam konteks ELT. Tugas guru bahasa Inggris termasuk membantu siswa menjadi melek digital serta memanfaatkan teknologi untuk membantu mereka menggunakannya dengan tepat dan sukses. Oleh karena itu, penelitian ini bertujuan untuk menemukan dan meneliti tantangan yang dihadapi oleh guru bahasa Inggris dalam mengintegrasikan dan menerapkan literasi digital ke dalam ELT. Responden penelitian ini adalah 33 guru bahasa Inggris yang bekerja di SMA Negeri dan Swasta di sekitar Denpasar, Bali. Selain itu, penelitian ini dirancang sebagai penelitian kualitatif dimana data penelitian dikumpulkan melalui kuesioner online terbuka, wawancara dan focus group discussion. Kemudian data dianalisis secara kualitatif yang terdari dari reduksi data, penyajian data, dan penarikan kesimpulan. Ditemukan bahwa beragam tantangan dihadapi oleh guru bahasa Inggris dalam menerapkan literasi digital di konteks ELT. Tantangan yang dihadapi tersebut disebabkan oleh faktor-faktor yang muncul dari internal dan eksternal guru bahasa Inggris.

Kata Kunci: literasi digital, english language teaching, smart society 5.0

#### **INTRODUCTION**

A vital role for education is to shape 21<sup>st</sup> century life skills since adaptability and qualified competency are required to tackle the era of Smart Society 5.0. The swift advancement of technology in recent times has made advancements in information technology, particularly in the teaching of English, inevitable. For instance, teachers are creating instructional materials and videos that necessitate internet access, which is a crucial component of classroom

instruction (Mu'in, Mariani, & Nasrullah, 2021). It means that in the field of education, digital literacy is used in tandem with the role of the classroom teacher. Moreover, proficiency in information and communication technologies is prerequisite for a employment as a professional teacher. Digital literacy is a requirement for this competency to be fulfilled.

Originally, the term digital literacy referred to a set of technical abilities for

using hardware and software. However, as times change, it becomes harder and more complex to define the use and the application of technology. Digital literacy can be defined as the skill to survive and to adapt towards both changes and developments which is completed by the ability to use the technology in this digital age (Öngören, 2021).

As the internet becomes more widely used, the idea of digital fluency becomes apparent which refers to the capacity to use internet tools to a certain degree of competence, to critically assess content, to challenge the veracity and accuracy of the content, and to be aware of the diversity of users and technology (Ata & Yıldırım, 2019). The fact that digital literacy is a dynamic phenomenon is also a result of the swift advancements in digital technology. Digital literacy is not merely the skills to read, consume, and analyze digital media content critically and analytically. In this maintaining а liberated sense. and participative attitude with digital technology also requires digital literacy.

What matters as digital literacy? It can be simplified into three categories such as discovering and applying digital content, creating digital content, and sharing digital content (Spires & Bartlett, 2012). The aforementioned categories underline the complex skills that the students must possess. three The categories are synthesised to shape digitally-literate individuals. Therefore, those who possess digital literacy should not only be able to operate a variety of digital tools, but also be able to utilize them in their line of work to create original material and effectively convey its usage, actions, and outcomes.

Jaringan Pegiat Literasi Digital in 2017 (Kurnia & Astuti, 2017) conducted a mapping research which dealt with digital literacy movement. It engaged 56 researchers 26 universities from in Indonesia to map out 342 digital literacy activities run in 9 cities. According to the research, Indonesian school institutions ranked lower when it came to arranging

digital literacy. It was placed 3,68%, lower than colleges, NGOs, communities, and the government, even though schools are supposed to be the main information providers for students and stakeholders. Moreover, been it had found that teens/students were the most active partners (29,55%) in arranging digital then followed literacy activity, by university students (18,5%). This is due to the fact that students are regarded to be the easiest to spread bad influences. However, in the midst of this digital world, they are still seen as the change agent.

As a developing nation, Indonesia still has a large percentage of students who lack literacy skills, as seen by their poor reading and writing habits (Nuroh & Liansari, 2018). In addition, a difficulty that frequently occurs is that many Indonesian schools are located in isolated places which provides the students with insufficient digital equipment to help the learning process, therefore makes it difficult for them to access the internet and (Mudra, 2020). As to Pagani, Argentin, Gui, & Stanca (2016), these factors will inherently result in the students reduced capacity to execute digital skill during the learning process.

In the English language teaching (hereafter, ELT) context, digital literacy is maintained crucial to be and mastered. Previous researches incorporated digital literacy into the activities of teaching and learning, principaly in language learning (Bekker, Bakker, Douma, van der Poel, & Scheltenaar, 2015; Hafner, Chik, & Jones, 2015). Digital literacy, as well as teachers' and students' attitudes toward language learning, have an influence on the process of teaching and learning languages successfully (Cephe & Yalcin, 2015).

ELT involves teaching and learning activities wherein the teachers are necessitated to creatively adjust the lessons assisted with multifaceted media to achieve the learning objectives. Since the goal of integrating digital technology into the classroom is to support students' successful

acquisition of knowledge, the material should be adapted using real-world scenarios and authentic texts (Purmayanti, 2022).

The implementation and insertion of digital literacy in the ELT class is acutely significant, however not all teachers are capable with the use of digital resources. The 21<sup>st</sup> century teacher is, of course, finding it increasingly difficult to incorporate digital literacy into the teaching and learning process (Rahman, Al-Qasri, & Ofara, 2023). Stated differently, digital literacy has evolved beyond a simple skill that students need to grasp and are mostly under the teacher's guidance.

A number of studies have explored the challenges of teachers in incorporating digital literacy into ELT. A study by Lam & Wong (2015) that the challenge of teaching digital literacy in curriculum focused on the language. Students are often inexperienced in learning new skills related to computer and technology due to the specific terms and dictions related to them. This becomes the obstacles for students in applying digital literacy in the classroom due to their capability to comprehend the digital devices and the lack of experiences in using the digital tools.

Moreover, another study by Purmayanti (2022) figured out that there were three primary obstacles when integrating digital literacy into the educational setting which include students' lack of digital literacy skills, the teacher's deficiency of digital literacy skills, and the absence of supporting access to digital resources. Furthermore, Mudra (2020) investigated EFL teachers' views on the barriers for digital literacy. The investigation resulted in finding out the primary obstacles were the intricacy of digital literacy resources, disparities in comprehension levels, a lack of policy backing, and insufficient expertise with digital literacy.

In accordance with the aforementioned rationale, the challenges occur in dealing with implementing digital literacy in ELT context are praiseworthy to investigate. Figuring out the specific challenges will hopefully raise the attention of the students, the teacher, and the policymakers on the issue of digital literacy challenges faced in ELT.

## **RESEARCH METHODS**

This research had been designed as qualitative research which investigated the challenges that were faced by the English teachers. Additionally, this research leaned heavily on the qualitative analysis. The qualitative data were gathered by means of an online questionnaire that addresses the challenges faced by the respondents in integrating digital literacy within ELT. Furthermore, focus group discussion and interview were performed to gather deeper qualitative data about the challenges.

The respondents of the research were 33 English teachers who work in both public and private senior high schools in Denpasar area. They were broken down into government employees and nongovernment employees. Moreover, they were 21 female and 12 male English teachers. In detailed, the demographic information of the respondents is envisaged in the form of Table 1.

In collecting a rich set of qualitative data, the first research instrument was openended questionnaire which could be accessed online by the entire participants. In addition, to get deeper qualitative data, the interview protocols as well as focus group discussion topic were created. These instruments were created and administered in the effort to obtain deep understanding of the respondents about the challenges in mastering digital literacy.

Seven respondents were previously involved and consented to participate virtually in the focus group discussions and interviews. They served as the delegates for

the West, East, North, and South Denpasar districts. The English teacher representatives from private and public senior high schools in one district were invited. In the virtual focus group and interview sessions, the participants were invited to expound on their responses and furnish specifics on the challenges they faced within digital literacy. Two expert judges assessed the validity and reliability of the research instruments. They hold doctorates and specialize in educational technology and English language teaching. The instruments were assessed according to how well the items aligned with the theory mentioned in the study. Following comments on the items' readability, the items' appropriateness to the objectives was further emphasized.

Table 1. Demographics of the Respondents		
	Aspects	Total
Gender	Male	12
	Female	21
Status	Government employee	12
	Non-government employee	21
Teaching	Under 5 years	10
experience	From 5-10 years	15
duration	Above 10 and under 15 years	8

Table 1. Demographics of the Respondents

То collect the data. the online questionnaire accessible was for respondents. Afterwards, the interview was done involving 7 participants who agreed to contribute to the online interview. Last, the focus group discussion was virtually done by engaging the representatives of the respondents through Zoom meeting.

After collecting the data, qualitative data analysis was done. Thematic content was extricated from the findings of online open-ended questionnaire, the interview transcripts as well as focus group discussion. Then, the collected data were investigated and scrutinized by the researchers to downgrade biases and enrich the quality and credibility of the findings. The research findings were studied and scrutinized by means of data reduction, data presentation and conclusion.

## **RESULTS AND DISCUSSION Results**

This current research was indented to figure out the challenges that the English teacher faced when they implemented digital literacy during ELT to deal with Smart Society 5.0. To achieve the objective of this research, three data collection methods were conducted such as online questionnaire, interview and focus group discussion.

Based on the online questionnaire which was in the form of open-ended questionnaire, it was identified that there were 7 challenges faced by English teachers in implementing digital literacy in ELT. These challenges are showed in Figure 1.

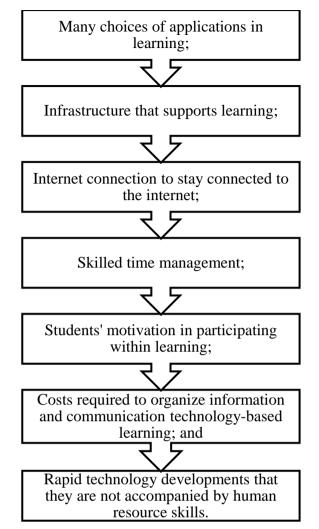


Figure 1. Challenges Faced by the English Teachers

The above findings were supported by the findings obtained by conducting virtual interview. The interview sessions were followed by 7 participants who agreed upon the consent fulfilled before the interview. They were interviewed individually through Zoom meeting. The gained data are as follows:

It was obviously identified that one major challenge that the teacher faced was rapid technology change and development without being followed by capabilities to master and use it. This can be proven by the following excerpts.

Tantangan yang dihadapi guru bahasa Inggris, kita seringkali dihadapkan pada perkembangan zaman terutama perkembangan teknologi yang luar biasa dan itu tercepat dan kemungkinan kita tertinggal itu yang menyebabkan tantangan kita (MT2).

Tantangannya, ya tentu adalah dengan adanya berbagai macam inovasi- inovasi baru yang terus datang, tentu kita harus menguasai dan lebih banyak kita harus belajar. Nah, tentu saja murid-murid juga harus terbiasa dengan apa yang kita pakai tetapi ya kadang-kadang muridnya bisa komplain dan mengatakan bahwa terlalu banyak jenis platform yang kita pakai. Jadi, yang mana mau dipakai itu bingung gitu ya jadi karena tawaran-tawaran itulah tawaran-tawaran yang banyak itumakan menjadi tantangan ya untuk kita pelajari

dan kemudian memilih yang terbaik untuk dipakai (MT3).

Based on the aforementioned two excerpts, digital literacy cannot be smoothly implemented if the users (both the teacher and the students) do not have capabilities in utilizing technology to support teaching and learning process. Th rapid development of technology and its applications must be aligned with the adequate human resources.

The next identified challenge was lack of understanding in utilizing the technology based applications and in comprehending the functions of the available advanced features. The following excerpts can verify the findings.

Internet biasanya sih, kemudian mengajari peserta didik bagaimana caranya menggunakan alat itu. Contohnya menggunakan Google form itu ternyata masih juga siswa yang kesusahan. Tidak mengerti cara menggunakan tentu saja diajarkan pelan-pelan karena Google form itu adalah sekarang teknik yang bagus untuk assessment. Nah, guru-guru tak perlu capek lagi untuk memeriksa ulangan cukup ulangan pakai itu dan langsung sret sret sret keluar nilainya. Jadi real time ini. Menurut saya sih tantangannya itu adalah pembiasaan murid-murid ya supaya lebih intensif lagi (MT1).

Belum tahu optimal fungsi-fungsi dalam aplikasi saat menggunakan aplikasi tersebut pertama kali. Butuh persiapan atau latihan awal sebelum dipraktikkan di kelas. Biasanya saya menggunakan aplikasi seperti Google Classroom, Zoom, Quizzes (FT1).

In line with the two previous excerpts, it can be wrapped up that training and workshop about technology and digital literacy are of necessary. Enhancing the capabilities to operate technology and use its benefits in teaching and learning process require efforts and motivation from the teacher and the students.

The next research data were collected by means of the focus group discussion. It was done involving 8 participants as the representative of the English teachers. During the discussion, the topic discussed was about the causing factors of the challenges faced by the English teachers in implementing digital literacy. The data are as follows:

The identified factors are related to the sources namely internal factor and external factor. This can be verified by the excerpts below.

Kalau menurut saya sih faktor potensi yang menyebabkan tantangan itu timbul karena 2 faktor, dari diri sendiri dan dari luar. Ya kalau dari diri sendiri, kemampuan guru sendiri. Kemudian dari luar yaitu tuntutan profesinya sekarang misalnya sekarang sudah ada tuntutan pakai e-raport. Mau tidak mau guru harus bisa menggunakan komputer dalam proses assesmentnya termasuk dalam pembelajarannya juga. Jadi faktor dan potensi dan tantangannya tuh ada 2 dari diri sendiri dan dari luar. Jadi dari diri sendiri kompetensi gurunya perlu ditingkatin dulu ya spesial untuk menghadapi itu dan kemudian dari luar tuntutan dari pekerjaan (MT1).

In accordance with the above excerpts, both internal and external factors were possible in causing the challenges in implementing digital literacy. The English teacher themselves need to enhance their capability to inject digital literacy in the teaching and learning process. As the external factor, there are requirements demanding digital literacy skill that the English teacher must fulfil and accomplish.

The next causing factors came from the facilities provided by the school and government, the students' capabilities and

the teachers' capabilities. This can be verified by the following data.

Jadi secara umum mungkin saya bisa melihat tiga faktor penyebab utamanya. Untuk yang pertama mungkin dari lingkungan sekolah ataupun pemerintah. Apakah sekolah itu memiliki alat-alat yang memadai untuk melakukan pembelajaran berbasis teknologi, jadi kalau misalkan kurang proyektor untuk di kelas. Untuk faktor kedua dari siswa sendiri. kemampuan siswa untuk menggunakan teknologi informasi itu apakah cukup, jadi kalau yang dari kalangan menengah keatas mungkin mereka sudah memiliki alat dan sudah memiliki kemampuan tapi yang mengarah ke bawah kadang alat pun mereka gak punya apalagi mereka tidak ada kemampuan untuk menggunakan alat itu sendiri. Kemudian. dari motivasi siswa itu sendiri. Faktor ketiga adalah apakah memiliki kemampuan guru untuk menggunakan teknologi ini, bukan cuma mengcopy paste informasi yang ada di internet dan menyenangkannya di slide, tapi membuat pembelajaran menggunakan teknologi itu benar-benar membuat siswa mengerti tentang proses pembelajaran itu (*MT4*).

In line with the aforementioned data, it can be concluded that proper and adequate facilities strongly support the implementation of digital literacy. The facilities will be useful if the English teacher and the students have capabilities to use the facilities in teaching and learning process.

The other causing factors are internet access and economy background. This can be validated by the following excerpts.

Menurut saya faktor-faktor penyebab dan potensi dan tantangan tersebut ada adalah yang pertama lingkungan yaitu misalnya kurangnya akses jaringan internet dalam mendukung proses pembelajaran berbasis IT dan yang kedua adalah faktor ekonomi yaitu kurangnya kemampuan seorang guru dalam membeli peralatan yang mendukung proses pembelajaran seperti misalnya laptop (FT2).

It can be concluded that, according to the abovementioned excerpts, internet connection does matter to maintenance the sustainability of ELT within this 21<sup>st</sup> century. Moreover, quality facilities and tools which support the teaching and learning process are in proportion to budgets and costs spent.

## Discussion

Becoming digitally literate for teachers in supporting digital teaching is essential within Smart Society 5.0 era. Bekker et al., (2015) stated that digital literacy is an essential skill for 21<sup>st</sup> century digital natives to possess, since it helps the students filter information acquired from digital media. However, to infuse ELT with digital literacy, it brings prominent challenges which can hinder the smooth sailing of ELT to the students if the challenges are not taken into consideration.

Based on the online open-ended questionnaire, 7 challenges were identified such as many choices of applications in learning, infrastructure that supports learning; internet connection to stay connected to the internet; skilled time management; students' motivation in participating within learning; costs required organize information to and communication technology-based learning; and rapid technology developments that they are not accompanied by human resource skills.

These findings are supported by several previous research results. The research findings found by Yuliana (2022) identified

that the challenges in digital transformation lay on the available infrastructures and skills of teachers and students. Another research done by Mudra (2020) figured out that the intricacy of digital literacy resources, disparities in comprehension levels, a lack of governmental backing, and insufficient expertise with digital literacy turned out to be the main challenges faced by the teacher.

Furthermore, the interview data support the online open-ended questionnaire that the challenges were rapid development of technology, varied technology-based applications, lack human resources, low comprehension and skill upon technology. These findings imply that both teachers and students as the users of technology must have capability and comprehension about the technology itself which will boost their digital literacy. A research conducted by Anggeraini, Faridi, Mujiyanto, & Bharati (2019) figured out that teachers are required follow technological to developments in the digital era; so that, teachers need to master various skills to play their role effectively as learning facilitators.

Digital literacy requires more than just the skill and capability to operate software or drive digital devices. It essentially requires a complex range of cognitive, motor, sociological, and emotional skills that users necessitate to perform effectively in digital environments (Eshet-Alkalai, 2004). Education faces challenges in providing the life that individuals need to survive and develop in society (Cristiana, 2021). The practice of technology within education is considered to present the greatest challenges and opportunities in education (Khotimah et al., 2020). Various technologies can enhance the learning process quality. Students can also gain

valuable knowledge, and the teaching process can be done using technology. However, this also creates difficulties for instance gaps in internet access for teachers and students, uneven infrastructure, as well as the costs of using digital devices.

The use of digital tools can also cause low self-efficacy and anxiety. In today's digital era, computer anxiety and high levels of computer self-efficacy are crucial affective factors that encourage the English teachers' success in teaching and also influence the students' academic success. As a result, digital technology master is necessary.

The challenges identified in this research were caused by several prominent factors. These factors were gathered by means of focus group discussion such as the capacity and capability of the English teacher, the duties and responsibilities of the English teachers, available facilities at schools and economy background of the English teacher.

# CLOSING

# Conclusion

To wrap up, some challenges were faced by the English teachers when they implemented digital literacy within ELT. These challenges were varied, and they were influential in ELT. The causing factors were also acknowledged which necessarily be taken into account in ELT. Thus, these challenges and their causing factors deserve further thought, which should be given to by all people in all relevant aspects. The government has to support the stduents by giving them access; meanwhile, the English teachers and students need to contribute to the digital literacy awareness.

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#### REFERENCES

- Anggeraini, Y., Faridi, A., Mujiyanto, J., & Bharati, D. A. L. (2019). Literasi digital: Dampak dan tantangan dalam pembelajaran bahasa. *Seminar Nasional Pascasarjana UNNES*, 386–389. Retrieved from https://proceeding.unnes.ac.id/index. php/snpasca/article/download/313/34 2/
- Ata, R., & Yıldırım, K. (2019). Exploring Turkish pre-service teachers' perceptions and views of digital literacy. *Education Sciences*, 9(1), 1– 16.

https://doi.org/10.3390/educsci90100 40

- Bekker, T., Bakker, S., Douma, I., van der Poel, J., & Scheltenaar, K. (2015). Teaching children digital literacy through design-based learning with digital toolkits in schools. *International Journal of Child-Computer Interaction*, 5, 29–38. https://doi.org/10.1016/j.ijcci.2015.1 2.001
- Cephe, P. T., & Yalcin, C. G. (2015). Beliefs about foreign language learning: The effects of teacher beliefs on learner beliefs. *Anthropologist*, 19(1), 167–173. https://doi.org/10.1080/09720073.20 15.11891651
- Cristiana, E. (2021). Digitalisasi pendidikan ditinjau dari perspektif hukum. *Prosiding Webinar Nasional IAHN-TP Palangka Raya*, (3), 58–66. Retrieved from https://prosiding.iahntp.ac.id
- Eshet-Alkalai, Y. (2004). Digital literacy: A conceptual framework for survival

skills in the digital era. *Journal of Educational Multimedia and Hypermedia*, 13(1), 93–106.

- Grncharovska, S. P., Osmani, F., Stankovska, G., Murati, R., & Taneska, A. (2016). The impact of the students' gender and high school type on the level of digital competency development for lifelong learning. *Journal of Education and Practice*, 7(24), 108–114. Retrieved from www.iiste.org
- Hafner, C. A., Chik, A., & Jones, R. H. (2015). Digital literacies and language learning. Language Learning and Technology, 19(3), 1– 7. https://doi.org/10.4324/97810031066
- 09-15 Khotimah, T. H., Rokaibah, N. S., Zahrotunnisa, S., Firdaus, M. W., Wiqi, R., & Rochman, C. (2020). Persepsi guru terhadap tantangan dan pendidikan. peluang *NATURALISTIC* : Jurnal Kajian Penelitian Pendidikan Dan Pembelajaran, 4(2a), 514-520. https://doi.org/10.35568/naturalistic. v4i2a.690
- Kurnia, N., & Astuti, S. I. (2017). Peta gerakan literasi digital di Indonesia: Studi tentang pelaku, ragam kegiatan, kelompok sasaran dan mitra yang dilakukan oleh Japelidi. *Kajian Ilmu Komunikasi (Informasi)*, 47(2), 149– 166.

https://doi.org/10.21831/informasi.v 47i2.16079

- Lam, C., & Wong, C. (2015). Challenges for digital literacy in English curriculum. 32–36.
- Mu'in, F., Mariani, N., & Nasrullah. peningkatan (2021).Pelatihan kemampuan literasi digital untuk guru-guru bahasa Inggris sekolah menengah pertama (SMP) di Kabupaten Kotabaru. Bubungan Tinggi: Jurnal Pengabdian Masyarakat, 3(3), 183–189.

Mudra, H. (2020). Digital literacy among

young learners: How do EFL teachers and learners view its benefits and barriers? *Teaching English with Technology*, 20(3), 3–24.

- Nuroh, E. Z., & Liansari, V. (2018). Digital age literacy in elementary school. *1st International Conference on Intellectuals' Global Responsibility (ICIGR 2017), 125, 119–123.* Atlantis Press. https://doi.org/10.2991/icigr-17.2018.29
- Öngören, S. (2021). Investigation of prospective preschool teachers' digital literacy and teacher readiness levels. *International Journal of Modern Education Studies*, 5(1), 181–204. https://doi.org/10.51383/ijonmes.202 1.90
- Pagani, L., Argentin, G., Gui, M., & Stanca, L. (2016). The impact of digital skills on educational outcomes: Evidence from performance tests. *Educational Studies*, 42(2), 137–162. https://doi.org/10.1080/03055698.20 16.1148588
- Purmayanti, D. (2022). The challenges of

implementing digital literacy in teaching and learning activities for EFL learners in Indonesia. *BATARA DIDI : English Language Journal*, *1*(2), 101–110. https://doi.org/10.56209/badi.v1i2.38

- Rahman, A., Al-Qasri, S., & Ofara, W. (2023). Exploring digital literacy practices in English language learning for secondary level students. *Journal of Languages and Language Teaching*, 11(4), 722–734. https://doi.org/10.33394/jollt.v11i4.8 939
- Spires, H. A., & Bartlett, M. E. (2012).
  Digital literacies and learning: Designing a path forward. Raleigh: The William & Ida Friday Institute for Educational Innovation.
- Yuliana. (2022). The challenges and opportunities in digital transformation for education during the Covid-19 pandemic. The 1st International Conference on Education and Technology "Beyond the New Normal Challenges in The World of Education Towards Society 5.0," 10–18.