

# INTEGRATING ICT IN ENGLISH LANGUAGE LEARNING: A MULTI-STAKEHOLDER PERSPECTIVE FROM STUDENTS, LECTURERS, AND INSTITUTIONAL STAKEHOLDERS IN HIGHER EDUCATION

**Maya Marsevani<sup>1</sup>,**

<sup>1</sup> Universitas Internasional Batam, Indonesia,

✉ (e-mail) [maya@uib.ac.id](mailto:maya@uib.ac.id)

**Desty Febria<sup>2</sup>,**

<sup>2</sup> Universitas Internasional Batam, Indonesia,

✉ (e-mail) [desty@uib.ac.id](mailto:desty@uib.ac.id)

Receive in	Revised in	Accepted in
06 April 2026	11 May 2026	13 May 2026

## ABSTRACT

The integration of Information and Communication Technology (ICT) plays a crucial role in enhancing interactive and student-centered English language learning in higher education. However, limited studies have explored the combined perspectives of lecturers, students, and institutional stakeholders. This study aims to examine their perceptions, practices, and roles in ICT implementation at Batam International University, Indonesia. Using a qualitative case study design with triangulation, data were collected through questionnaires, semi-structured interviews, and classroom observations. The findings indicate that students view ICT positively, noting its impact on motivation, autonomy, and engagement, though digital literacy challenges remain. Lecturers recognize its pedagogical benefits but face constraints such as time, technical issues, and alignment with instructional practices. Stakeholders are crucial in providing institutional support, training, and infrastructure. The study highlights the need for a holistic approach to ICT integration, aligning pedagogical practices, technological readiness, and institutional policies. Strengthening digital literacy and promoting continuous professional development are essential for optimizing ICT use in English language learning.

**Keywords:** ICT integration; English language learning; higher education; digital literacy; institutional support; qualitative case study.

## INTRODUCTION

Information and Communication Technology (ICT) plays a crucial role in higher education by supporting more interactive, flexible, and student-centered learning environments. In English language learning (ELL), ICT offers

various digital tools such as computers, multimedia resources, video conferencing, and online applications that facilitate the development of listening, speaking, reading, and writing skills (Akther, 2022; Mahmood et al., 2021). Research has

shown that ICT enhances students' motivation, engagement, and autonomy, while allowing teachers to design diverse, meaningful instructional experiences (P. Kumar & Gautam, 2023).

Despite these benefits, the implementation of ICT in English Language Teaching (ELT) often falls short of expectations. Institutions face challenges, such as limited infrastructure, unstable internet connectivity, and inadequate technical support, which hinder effective ICT integration (Akram et al., 2022; Katemba, 2020; Poudel, 2022). Moreover, disparities in digital literacy among both teachers and students further complicate the integration process. Although many students are familiar with technology, not all can use ICT effectively for academic purposes. Similarly, teachers may struggle to integrate ICT due to limited training, lack of confidence, or challenges in aligning technology with pedagogical goals (Saud, 2023; Taha & Salim, 2023).

While teachers' and students' perspectives are essential in understanding ICT implementation, institutional stakeholders—such as faculty administrators and IT personnel also play a crucial role in supporting ICT integration through policy development, resource allocation, and infrastructure

maintenance (Apsorn et al., 2019; Kamath & Kumar, 2022; Ogunleye, 2019). Previous studies have primarily focused on the perspectives of teachers and students, with limited attention given to the role of institutional stakeholders in supporting ICT in ELT. Research suggests that teachers tend to have positive attitudes toward ICT, despite facing barriers like inadequate training and internet facilities (Hafifah & Sulisty, 2020; Hidayah & Prihantoro, 2022; Idris, 2019). Likewise, students often have favorable attitudes, although they still encounter challenges related to access and institutional support (Arif, 2019; Ngo & Eichelberger, 2019; N. E. Simbolon, 2021).

The novelty of this study lies in its integrated examination of the perspectives of three key groups: teachers, students, and institutional stakeholders. By including all three perspectives, this study provides a more comprehensive understanding of ICT integration in English language learning, addressing gaps in the existing literature. Specifically, it focuses on software- and network-based ICT in the higher education context, providing a targeted analysis of how these technologies are perceived, used, and supported. The study aims to explore how teachers and students view ICT's role in

the learning process, and to identify the roles of institutional stakeholders in facilitating its effective integration.

The study will address the following research questions: What are the perspectives of teachers, students, and institutional stakeholders on ICT

integration in English language learning at Batam International University? What challenges do these groups face in the implementation of ICT for language learning? Lastly, what roles do institutional stakeholders play in supporting ICT integration?.

## REVIEW OF RELATED LITERATURES

### 2.1 The Importance of ICT in Education

ICT plays a crucial role in modern education, fostering interactive, flexible, and student-centered learning environments (Ratheeswari, 2018; UNESCO, 2019). It includes a wide range of digital tools and platforms that facilitate information access, communication, and knowledge construction. While ICT supports personalized learning, student engagement, and promotes competencies like digital literacy, critical thinking, and collaboration (Mishra & Sahoo, 2023; Orús et al., 2020), its use also presents challenges. These challenges include unequal access to resources, especially in lower-income regions or less-developed institutions (UNESCO, 2019). ICT has been shown to increase motivation and provide access to diverse learning resources, particularly in higher education contexts where flexibility and independent

learning are emphasized (Balaji & Sahija, 2022). Despite its importance, a more critical analysis is needed to explore how well these benefits are realized across different types of institutions.

### 2.2 ICT Tools and Strategies in English Language Learning

In English language learning (ELL), ICT introduces various tools that support interactive and autonomous learning. Language learning applications, such as Duolingo, facilitate vocabulary, grammar, and pronunciation development through gamified, self-directed activities (Loewen et al., 2020). Learning Management Systems (LMS) and blended learning approaches further enhance instructional delivery by combining face-to-face and online learning components (Fitrawati, 2021; Kaouni et al., 2023; Marsevani, Slikker, et al., 2024). Additionally, multimedia resources such as videos and podcasts provide authentic

language input, while communication platforms and social media enable continuous interaction and real-life language practice (Ahmed, 2020; Yuyun & Simamora, 2021). While these tools are widely regarded as effective, their implementation often relies heavily on instructors' technical skills and institutional support, factors which can vary widely across settings.

### **2.3 Benefits and Challenges of ICT in English Language Learning**

The literature consistently highlights that Numerous studies highlight ICT's positive impact on language skills development, learner motivation, and autonomy. Interactive tools support the improvement of listening, speaking, reading, and writing skills, encouraging active participation (P. Kumar & Gautam, 2023; Palaniappan & Noor, 2022). However, challenges persist. Limited infrastructure, inadequate technical support, and digital literacy gaps among both teachers and students hinder effective ICT integration (Mynařiková & Novotný, 2020; Redecker & Punie, 2017). Teachers

often struggle with aligning ICT tools to pedagogical objectives, especially in the absence of sufficient training (Sun, 2023). Moreover, while students generally embrace ICT, disparities in access to devices and reliable internet connections remain significant barriers (Arif, 2019; N. E. Simbolon, 2021).

While the benefits of ICT in ELT are well documented, the current literature primarily focuses on either the benefits or challenges faced by single user groups—primarily teachers and students. There is limited attention to the integrated perspectives of teachers, students, and institutional stakeholders. This gap highlights the need for more comprehensive studies that consider the roles of all involved parties in ICT integration. The lack of a multi-stakeholder approach in existing literature calls for research that not only examines the perspectives of teachers and students but also investigates the institutional roles that are critical for facilitating effective ICT implementation in higher education contexts.

## **.METHODS**

This study adopts a qualitative case study design to explore

the integration of Information and Communication Technology (ICT) in

English language learning within a higher education context. A qualitative approach was chosen to gain in-depth insights into participants' perspectives and to interpret the meanings constructed in real-life settings (Ibrahim & Victoria, 2022). The study was conducted at Batam International University, Indonesia, over three months during the 2023–2024 academic year. The institution was selected for its established ICT infrastructure, including computer laboratories, Learning Management Systems (LMS), and various digital learning tools.

The participants included English lecturers (N=10), students (N=60) from the 2021–2024 cohorts with English proficiency levels ranging from B1 to C1 (CEFR), and institutional stakeholders (N=7), including faculty staff and IT personnel. Participants were selected purposively based on their direct involvement in ICT integration for English language learning.

Data were collected in three stages: (1) distribution of questionnaires to all participants (lecturers, students, and IT staff) to gather perceptions and practices; (2) semi-structured interviews with two

faculty administrators and four lecturers to explore institutional perspectives; and (3) classroom observations, conducted three times, to examine actual ICT practices in the classroom. The study employed triangulation to enhance the trustworthiness of the findings. Data triangulation involved using multiple participant groups, while methodological triangulation integrated questionnaires, interviews, and observations.

Thematic analysis was used to analyze qualitative data from interviews, open-ended questionnaire responses, and observation field notes. A coding process was employed, with two coders involved in the analysis to ensure reliability and consistency. Ethical considerations included obtaining informed consent from all participants, ensuring anonymity and confidentiality, and obtaining permission for recording. Data were securely stored following university guidelines.

Additionally, the study employed member checking, peer debriefing, and an audit trail to strengthen the credibility of the findings. The data were analyzed descriptively and thematically, with close-ended questionnaire responses analyzed using frequencies and percentages.

## RESULTS AND DISCUSSION

### 4.1 Students' Perspectives on ICT in Learning

The findings indicate that students generally have a favorable view of ICT in English language learning. They recognize ICT as a valuable tool that supports task completion, facilitates access to learning materials, and allows for personalized content selection. A majority of students (82%) expressed that ICT enhances their learning experiences, with many highlighting the increased accessibility to resources and the ability to work at their own pace. Digital tools, such as language learning apps (e.g., Duolingo, Memrise), video platforms (e.g., YouTube), and support tools (e.g., Google Translate, Grammarly), were reported as integral to their independent learning. Additionally, 75% of students reported using communication platforms like Zoom and Google Meet, which indicates that ICT has become an essential part of both classroom and independent learning practices.

ICT is also perceived as a means to enhance engagement and interactivity. Many students noted that ICT fosters collaborative learning and increases classroom participation, with 68% of

respondents agreeing that ICT motivates them to engage more in class activities. This is supported by previous studies (N. Simbolon et al., 2020), which highlighted ICT's potential to increase student engagement. However, students also reported challenges, including unstable internet connectivity (reported by 58% of respondents), distractions from non-academic applications, and difficulties in understanding some online materials. A small number (14%) of students indicated that they still faced digital literacy gaps, particularly in using more advanced digital tools. Despite these challenges, students generally agree that ICT improves their learning, but its effectiveness is constrained by infrastructural issues and varying levels of digital readiness.

### 4.2 Teachers' Perspectives on ICT Integration

Teachers in this study generally express positive attitudes toward ICT integration, recognizing it as a valuable tool to support interactive, student-centered learning. All lecturers (100%) agreed that ICT enhances student engagement and facilitates more dynamic and diverse teaching activities. The use

of platforms like LMS, Microsoft Teams, PowerPoint, and game-based tools such as Kahoot and Wordwall were frequently mentioned as effective in fostering student participation. In line with previous research (Jagust & Boticki, 2019), many teachers also reported using AI-based tools such as ChatGPT and Gemini to assist in generating instructional materials and creative ideas.

Despite these benefits, several challenges persist. Technical issues, including unstable internet connections and device limitations, were frequently mentioned by 64% of lecturers. In addition, 71% of lecturers reported facing difficulties aligning ICT tools with specific learning objectives, with time constraints often making the integration of more advanced ICT tools less feasible. These challenges led to ICT being used primarily for presentation rather than for fostering deeper interaction, which is in line with the findings of Sun (2023) and Taha & Salim (2023), who highlighted that ICT integration often remains superficial without adequate pedagogical alignment. While lecturers show a high level of confidence in using ICT, its potential remains constrained by practical and pedagogical challenges.

### **4.3 Stakeholders' Roles in ICT Implementation**

The findings suggest that ICT implementation is supported by the complementary roles of teachers, faculty staff, and IT personnel. Teachers are the primary users and facilitators, utilizing ICT to deliver content, design assessments, and enhance student engagement. Faculty staff serve as institutional facilitators, supporting the use of digital platforms such as LMS and Microsoft Teams for academic activities. They also organize workshops and training programs to improve digital literacy, particularly for students and faculty members with limited ICT skills.

IT staff play a critical role in maintaining and updating ICT infrastructure, including computers, projectors, internet connectivity, and learning platforms. They also provide technical assistance during teaching activities and conduct training on digital tools. In some cases, they offer recommendations for new technologies to support English language teaching.

The collaboration between these stakeholders is essential for effective ICT integration. While their roles are clearly defined, the findings suggest that coordination between the groups can sometimes be fragmented. For example, although faculty staff and IT personnel collaborate to address technical issues,

there are occasional delays in resolving problems, which can hinder the smooth implementation of ICT tools in classrooms. This highlights the need for more efficient communication and alignment between institutional stakeholders to ensure that ICT integration is sustained and optimized.

## **DISCUSSION**

### **4.1 Students' Perspectives on ICT in Learning**

The findings suggest that students generally view ICT positively as a tool for task completion, access to learning materials, and the selection of content tailored to individual needs. This aligns with the work of S. S. Kumar & Priyanka (2024) and Kacetl & Klímová (2019), who argue that digital technologies promote learner autonomy, engagement, and broaden access to learning opportunities. Moreover, studies by Marsevani (2021) and Marsevani, Sasmi, et al. (2024) highlight that students perceive ICT as supportive of autonomous language learning and strategic engagement, particularly when learners are guided in selecting appropriate resources and managing their learning pace.

Interestingly, despite a high level of digital literacy among most students, as seen in their familiarity with platforms

like LMS, YouTube, and Zoom, some students still face challenges in utilizing ICT effectively, suggesting that digital literacy is unevenly distributed (Calderón et al., 2022). This discrepancy indicates the need for further support to ensure inclusive ICT-based learning for all students.

While ICT contributes to greater engagement and interaction in the learning process, with 75% of students reporting increased classroom participation, it also introduces challenges. Internet connectivity issues, distractions from non-academic content, and difficulties in comprehending complex materials were frequently mentioned. These challenges were particularly evident in students' personal learning environments, as classroom observations revealed fewer technical disruptions. This points to the potential impact of external factors such as home internet quality, highlighting the broader infrastructural gaps that influence ICT effectiveness (Katemba, 2020; Saud, 2023). Furthermore, while students actively engage with ICT tools for autonomous learning, they sometimes struggle with self-regulation, a challenge that could be addressed through structured guidance to help students navigate distractions and optimize their

learning experience (Marsevani, 2021; Marsevani, Putra, et al., 2024).

#### **4.2 Teachers' Perspectives on ICT Integration**

Lecturers expressed positive perspectives on ICT, particularly regarding its potential to enhance teaching practices, increase student engagement, and support student-centered learning. This supports findings by Toma et al. (2023) and Gagić et al. (2023), who emphasize the importance of positive teacher attitudes for successful ICT integration. Lecturers demonstrated openness to using various digital tools, including LMS, Microsoft Teams, Kahoot, and emerging AI-based platforms like ChatGPT and Gemini. This growing adoption of AI tools reflects an ongoing shift towards integrating more sophisticated technologies into teaching practice, a trend supported by Shadieff and Wang (2022).

However, challenges persist. Teachers highlighted technical issues, time constraints, and difficulties aligning ICT with pedagogical objectives. These concerns echo the findings of Idris (2019), Purwati et al. (2024), and Marsevani (2022), who note that inadequate training, infrastructure, and experience with e-learning platforms can

impede effective ICT use. The issue of pedagogical alignment is particularly significant when using AI-based tools, as highlighted by Rahim et al. (2018), who argue that technology is only effective when its integration is purposefully aligned with instructional goals. Interestingly, while classroom observations showed smooth ICT use during actual lessons, issues arose primarily in lesson preparation or outside of formal teaching contexts, underscoring the need for better integration of ICT into the planning phase and providing adequate time for lecturers to align it with their teaching objectives.

#### **4.3 Stakeholders' Roles in ICT Implementation**

The study found that ICT implementation in English language learning is heavily shaped by the collaborative roles of teachers, faculty staff, and IT personnel. Teachers act as the primary facilitators, incorporating ICT into instruction and promoting its use among peers. This is in line with Sani & Abubakar (2023), Haerazi (2024), and Marsevani, Samsi, et al. (2024), who identify teachers as key agents of change in the adoption of ICT in education, particularly in interpreting and adapting curricula to integrate digital tools effectively.

Faculty staff play a vital supporting role by promoting digital platforms, organizing training sessions, and offering direct assistance to lecturers and students. These findings align with Apsorn et al. (2019) and Ghavifekr and Quan (2020), who highlight the importance of institutional support in sustaining ICT integration.

IT staff, as technical enablers, ensure the smooth operation of ICT systems and provide technical support during teaching activities. This role is crucial for the stability and effectiveness of digital learning environments, a point underscored by Avidov & Hanin (2019) and Bradley (2021). IT staff also contribute by suggesting new technologies and participating in professional development initiatives to

help teachers and students stay up-to-date with emerging tools.

Despite these complementary roles, the study found that the alignment and coordination between stakeholders could be improved. While teachers, faculty staff, and IT personnel all have well-defined responsibilities, communication gaps sometimes hinder the smooth implementation of ICT. For instance, delays in resolving technical issues, which may not be immediately visible in the classroom, can disrupt the overall learning experience. This suggests a need for more streamlined communication and stronger collaboration between stakeholders to ensure that ICT integration is sustained effectively across all levels of the institution (Marsevani, Slikker, et al., 2024)

## CONCLUSIONS

This study highlights the significant role of Information and Communication Technology (ICT) in enhancing English language learning in higher education. Both students and lecturers recognize ICT's value in improving access to resources, fostering interaction, and promoting flexible learning. However, the effectiveness of ICT integration is limited by challenges

such as unstable internet connectivity, uneven digital literacy, and technical constraints. The study also emphasizes that successful ICT integration relies on a collaborative effort between teachers, faculty staff, and IT personnel, each playing a vital role in ensuring effective implementation.

The findings suggest that while positive attitudes toward ICT are essential,

their impact is maximized when aligned with sound pedagogical practices, reliable infrastructure, and ongoing institutional support. To optimize ICT's potential, higher education institutions should focus on enhancing infrastructure, providing targeted professional development, and addressing digital literacy gaps among both students and educators.

Despite these contributions, the study has limitations, such as the focus on

a single institution, which may limit the generalizability of the findings. Future research could explore ICT integration across multiple institutions and disciplines, examining the long-term impact on learning outcomes and the role of emerging technologies like AI and machine learning in language learning.

## ACKNOWLEDGMENTS

The authors would like to express their sincere gratitude to all individuals and institutions who contributed to this study. Special thanks to the lecturers, students, faculty staff, and IT personnel at Batam International University for their participation and valuable insights. We also appreciate the constructive feedback from colleagues and reviewers, which

significantly improved the manuscript. Additionally, we acknowledge the technical and administrative support received throughout the research process. Permission has been obtained from all acknowledged parties.

This research did not receive any specific grant from funding agencies in the public, commercial, or non-profit sectors.

## REFERENCES

- Ahmed, B. E. S. (2020). Social media in teaching of languages. *International Journal of Emerging Technologies in Learning*, 15(12), 72–80. <https://doi.org/10.3991/ijet.v15i12.12645>
- Akram, H., Abdelrady, A. H., Al-Adwan, A. S., & Ramzan, M. (2022). Teachers' perceptions of technology integration in teaching-learning practices: A systematic review. *Frontiers in Psychology*, 13, 1–9. <https://doi.org/https://doi.org/10.3389/fpsyg.2022.920317>

- Akther, F. (2022). Impact of information and communication technology (ICT) on the curriculum upgradation and career aspiration of students. *Journal of Image Processing and Intelligent Remote Sensing*, 2(5), 1–9. <https://doi.org/https://doi.org/10.55529/jipirs.25.1.9>
- Apsorn, A., Sisan, B., & Tungkunan, P. (2019). Information and communication technology leadership of school administrators in Thailand. *International Journal of Instruction*, 12(2). <https://doi.org/https://doi.org/10.29333/iji.2019.12240a>
- Arif, T. Z. Z. Al. (2019). Indonesian university students' perception and expectation towards ICT use in learning English as a foreign language. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 4(1). <https://doi.org/https://doi.org/10.21093/ijeltal.v4i1.348>
- Balaji, K., & Sahija, D. (2022). Effectiveness of ICT in enhancing learning procedure in higher education. *Technoarete Transactions on Applications of Information and Communication Technology (ICT) in Education*, 1(2). <https://doi.org/https://doi.org/10.36647/TTAICTE/01.02.A004>
- Bradley, V. M. (2021). Learning management system (LMS) use with online instruction. *International Journal of Technology in Education*, 4(1), 68–92.
- Fitrawati. (2021). Learning management system and EFL classes: A way to promote autonomous blended learning. *Journal of Physics: Conference Series*, 1779(1). <https://doi.org/https://doi.org/10.1088/1742-6596/1779/1/012030>
- Haerazi, H. (2024). ICT integration into English language teaching-learning: Insights from some private higher education institutions. *Englisia: Journal of Language, Education, and Humanities*, 11(2), 48. <https://doi.org/https://doi.org/10.22373/ej.v11i2.19913>
- Hafifah, G. N., & Sulisty, G. H. (2020). Teachers' ICT literacy and ICT integration in ELT in the Indonesian higher education setting. *Turkish Online Journal of Distance Education*, 21(3), 186–198. <https://doi.org/https://doi.org/10.17718/tojde.762050>
- Hidayah, J., & Prihantoro, P. (2022). ICT-based learning in new normal era: Viewed from practice and impact in ELT classroom. *English Franca: Academic Journal of English Language and Education*, 6(1), 37. <https://doi.org/https://doi.org/10.29240/ef.v6i1.4116>
- Ibrahim, M. G., & Victoria, D. M. (2022). Reflections on the use of qualitative case study design in education policy research: Contributing to the debate of generalisation in

- research. *International Journal of Social Sciences and Humanities Invention*, 9(09), 7250–7258. <https://doi.org/https://doi.org/10.18535/ijsshi/v9i09.09>
- Idris, O. A. S. (2019). Investigating the challenges of integrating information and communication technology in teaching English language. *Journal of Linguistics and Literature*, 3(1), 11–18. <https://doi.org/https://doi.org/10.12691/jll-3-1-3>
- Kacetl, J., & Klímová, B. (2019). Use of smartphone applications in English language learning—A challenge for foreign language education. *Education Sciences*, 9(179), 1–9. <https://doi.org/https://doi.org/10.3390/educsci9030179>
- Kamath, M., & Kumar, A. (2022). Informatization of society through openness movement in higher education. *International Journal of Management, Technology, and Social Sciences*, 7(2). <https://doi.org/https://doi.org/10.5281/zenodo.7353679>
- Kaouni, M., Lakrami, F., & Labouidya, O. (2023). Integrating artificial intelligence and natural language processing in e-learning platforms: A review of opportunities and limitations. *Colloquium in Information Science and Technology*, 1–8. <https://doi.org/https://doi.org/10.1109/CiSt56084.2023.10409971>
- Katempa, C. V. (2020). Teachers' perceptions in implementing technologies in language teaching and learning in Indonesia. *Acuity: Journal of English Language Pedagogy*, 5(2), 38–51. <https://doi.org/https://doi.org/10.35974/acuity.v5i2.2299>
- Kumar, P., & Gautam, D. (2023). Transformative role of ICT in 21st century learning: Enhancing educational effectiveness and equitability. *International Journal for Research in Applied Science & Engineering Technology*, 11(12), 91–95.
- Kumar, S., & Priyanka. (2024). The effects of information and communication technology (ICT) on pedagogy and student learning outcome in higher education. *EAI Endorsed Transactions on Scalable Information Systems*, 11(2), 1–5. <https://doi.org/https://doi.org/10.4108/eetsis.4629>
- Loewen, S., Isbell, D. R., & Sporn, Z. (2020). The effectiveness of app-based language instruction for developing receptive linguistic knowledge and oral communicative ability. *Foreign Language Annals*, 53(2), 209–233. <https://doi.org/https://doi.org/10.1111/flan.12454>
- Mahmood, H., Lodhi, F. A., & Rahat, A. (2021). An analysis towards implication of information and communication technology at university level. *PJER*, 4(1), 143–161. <https://doi.org/https://doi.org/10.52337/PJER.V4I1.146>

- Marsevani, M. (2021). Learners' perception and practices on autonomous language learning in EFL settings. *International Journal of Language and Literature*, 5(1), 54–65.
- Marsevani, M. (2022). The challenges of e-learning for higher education lecturers and learners. *Journal of Education Technology*, 6(3), 467–477. <https://doi.org/https://doi.org/10.23887/jet.v6i3.455>
- Marsevani, M., Putra, R., & Zaki, L. (2024). EFL teachers' interpretation of curriculum: The cases of elementary schools. *Lingual: Journal of Language and Culture*, 17(2), 74.
- Marsevani, M., Sasmi, N. I., & Zaki, L. B. (2024). Examining EFL teachers' perspectives: Enhancing learning through technology-Integrated instruction. *Linguists: Journal of Linguistics and Language Teaching*, 10(2), 249–267. <https://doi.org/http://dx.doi.org/10.29300/ling.v10i2.5390>
- Marsevani, M., Slikker, G. M., Pratiwi, T. L., & Nugraha, H. (2024). Portraying young learners' language learning strategies: A case study from EFL teachers' voices. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 9(2), 383–405.
- Mishra, S., & Sahoo, S. (2023). ICT for personal and professional development of teacher. *International Journal for Multidisciplinary Research*, 5(4), 1–6.
- Mynaříková, L., & Novotný, L. (2020). Knowledge society failure? Barriers in the use of ICTs and further teacher education in the Czech Republic. *Sustainability*, 12(17). <https://doi.org/https://doi.org/10.3390/SU12176933>
- Ngo, H., & Eichelberger, A. (2019). College students' attitudes toward ICT use for English learning. *International Journal of Education and Development Using Information and Communication Technology*, 15(1), 231–244.
- Ogunleye, I. O. (2019). Socio-economic factors and adoption of ICT among staff members of colleges of education in northwest zone of Nigeria. *Information and Knowledge Management*, 9(2), 67–75.
- Orús, M. L., Cosculluela, C. L., Toledo, S. V., & Sánchez, V. S. (2020). The technological challenge facing higher education professors: Perceptions of ICT tools for developing 21st Century skills. *Sustainability*, 12(13). <https://doi.org/https://doi.org/10.3390/su12135339>

- Palaniappan, K., & Noor, N. M. (2022). Gamification strategy to support self-directed learning in an online learning environment. *International Journal of Emerging Technologies in Learning*, 17(3), 104–116.
- Poudel, A. P. (2022). Information and communication technology in English language teaching: Some opportunities and challenges. *Journal of Comparative & International Higher Education*, 14(4), 103–116.
- Purwati, H., Muluk, I. F., Tis', P., & Difinubun, N. (2024). ICT integration in the English learning context for the higher education students: Potencies and issues. *Jurnal Pendidikan Bahasa*, 11(1), 611–621.
- Ratheeswari, K. (2018). Information communication technology in education. *India Journal of Applied and Advanced Research*, 3, 45–47.
- Redecker, C., & Punie, Y. (2017). European framework for the digital competence of educators: DigCompEdu.
- Sani, M. A., & Abubakar, S. R. (2023). The role of ICT in teaching English language phonics. *Global Journal for Research Analysis*, 12(4), 15–17. <https://doi.org/https://doi.org/10.36106/gjra>
- Saud, D. S. (2023). Teachers and students' perceptions towards using ICT in ELT in model schools. *Journal of Tikapur Multiple Campus*, 78–93. <https://doi.org/https://doi.org/10.3126/jotmc.v6i01.56347>
- Simbolon, N. E. (2021). EFL students' perceptions of blended learning in English language course: Learning experience and engagement. *Journal on English as a Foreign Language*, 11(1), 152–174. <https://doi.org/https://doi.org/10.23971/jefl.v11i1.2518>
- Simbolon, N., Simanjuntak, E. B., Simanjuntak, M. P., & Purba, J. T. (2020). The effectiveness of ICT-based learning in improving English skills of elementary school teacher college students. *Academic Journal of Interdisciplinary Studies*, 9(5), 217–226. <https://doi.org/https://doi.org/10.36941/ajis-2020-0099>
- Sun, S. (2023). Teachers' technological skills in influencing students' learning motivation. *Applied & Educational Psychology*. *Applied & Educational Psychology*, 4(9), 80–88. <https://doi.org/https://doi.org/10.23977/appep.2023.040913>
- Taha, T. B., & Salim, M. (2023). The impact of technology on students' psychological and educational performance. *JISA (Jurnal Informatika Dan Sains)*, 6(1), 91–95.

- Toma, F., Ardelean, A., Grădinaru, C., Nedelea, A., & Diaconu, D. C. (2023). Effects of ICT integration in teaching using learning activities. *Sustainability*, 15(8), 1–21. <https://doi.org/https://doi.org/10.3390/su15086885>
- UNESCO. (2019). *Global Education Monitoring Report 2019: Migration, displacement and education – Building bridges, not walls*. UNESCO. <https://doi.org/10.54676/xdzd4287>
- Yuyun, I., & Simamora, F. Y. (2021). Use of YouTube to support EFL student's listening skills. *ELLTER Journal*, 2(2), 1–12. <https://doi.org/https://doi.org/10.22236/ellter.v2i2.7512>