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RESEARCH ARTICLE

THE USE OF TECHNOLOGICAL TOOLS IN TEACHING AND LEARNING ENGLISH AS A FOREIGN LANGUAGE FOR JUNIOR HIGH SCHOOL

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Abstract: This research explores the use of Information and Communication Technology (ICT) in teaching English as a Foreign Language (EFL) at junior high school level of education. It aims to identify the ICT tools used by teachers and students, assess the benefits of ICT integration, and examine the challenges encountered. Using a qualitative methodology, content analysis, and a thematic approach based on Miles and Huberman's model, the study analyzes data from one junior high school in West Java. Findings show extensive use of ICT tools like laptops, projectors, smartphones, Google Classroom, and YouTube. ICT boosts student engagement, supports language skill development, and introduces innovative teaching methods. However, challenges include limited technology access, insufficient teacher digital competence, and time constraints for preparing ICT-based materials. The study concludes that successful ICT integration requires ongoing teacher development, better infrastructure, and strategic curriculum design to enhance EFL education.

Keywords: ICT; EFL; TEFL; technology; junior high school

PENGUNAAN PERANGKAT TEKNOLOGI DALAM PEMBELAJARAN BAHASA INGGRIS SEBAGAI BAHASA ASING DI JENJANG SEKOLAH MENENGAH PERTAMA

Abstrak: Penelitian ini mengeksplorasi penggunaan perangkat Teknologi Informasi dan Komunikasi (TIK) dalam pengajaran Bahasa Inggris sebagai Bahasa Asing (EFL) di tingkat pendidikan sekolah menengah pertama. Penelitian ini bertujuan untuk mengidentifikasi perangkat TIK yang digunakan oleh guru dan siswa, menilai manfaat integrasi TIK, dan mengkaji tantangan yang dihadapi. Dengan menggunakan metodologi kualitatif, analisis konten, dan pendekatan tematik berdasarkan model Miles dan Huberman, penelitian ini menganalisis data dari satu sekolah menengah pertama di Jawa Barat. Temuan menunjukkan penggunaan perangkat TIK secara ekstensif seperti laptop, proyektor, telepon pintar, Google Classroom, dan YouTube. TIK meningkatkan keterlibatan siswa, mendukung pengembangan keterampilan bahasa, dan memperkenalkan metode pengajaran yang inovatif. Namun,

tantangannya meliputi akses teknologi yang terbatas, kompetensi digital guru yang tidak memadai, dan kendala waktu untuk menyiapkan materi berbasis TIK. Penelitian ini menyimpulkan bahwa integrasi TIK yang berhasil memerlukan pengembangan guru yang berkelanjutan, infrastruktur yang lebih baik, dan desain kurikulum yang strategis untuk meningkatkan pendidikan EFL.

Kata kunci: TIK; EFL; TEFL; teknologi; SMP

INTRODUCTION

Information and Communication Technology (ICT) has revolutionized various aspects of daily life, with education being a prominent beneficiary. The integration of ICT in education, especially in junior high schools, has opened new avenues for instruction and learning, aligning with the needs of the modern world. According to Holyes and Lagrange (2010), technology is now a fundamental element of education. Teachers use ICT to enhance their efficiency and accuracy, leveraging digital libraries like those from Harvard and Oxford (Altun, 2015) to access extensive resources and lesson plans. The integration of ICT enriches the educational experience by improving student engagement and motivation. Tools such as electronic whiteboards, computers, the internet, and mobile devices have been instrumental in enhancing language awareness and accelerating language acquisition (Altun, 2015).

ICT impacts the diversification of materials, contexts, and teaching methods. It enables a more student-centered approach to language instruction, allowing teachers to tailor their methods to individual student needs. As digital natives, students are encouraged to use the target language in technologically advanced environments (AlMahrooqi & Troudi, 2014). Effective learning materials and instruction go hand in hand, with technology fostering effective communication and motivation among students (Kaya, 2015). Suriansyah (2017) emphasizes the importance of technical proficiency for both teachers and students to maximize learning effectiveness. Tanjung (2018) highlights that learning environments solely for students may hinder knowledge generation, stressing the importance of collaborative knowledge construction. Philips (1997) demonstrates how multimedia can promote active learning and accommodate diverse learning styles by reducing the need for teacher-centered instruction.

The positive effects of ICT on language acquisition over the past two decades (Kandasami & Shah, 2013) underscore the evolution of ICT in teaching and learning (Suherdi, 2012; Romero, 2008). With the challenges of teaching English to non-native speakers, educators have increasingly turned to innovative media development driven by ICT. Heinich et al. (2002) describe computer-based media as instructional software and digital resources that enhance educational standards. These learning media not only support teachers in delivering content but also encourage student participation. Interactive multimedia, incorporating text, graphics, audio, animations, and videos, provides flexible and engaging learning environments, allowing students to explore their interests and actively participate in their education (Rini, Suryaman, & Wiyarno, 2019).

Ghavifekr et al. (2013) discuss the broad application of ICT in education for teaching, learning, administration, and management, though challenges such as time and effort for skill acquisition and resource creation persist. Indonesian regulations, including Regulation No. 37 of 2018, reflect the importance of ICT, with the 2013 Curriculum and Merdeka Curriculum integrating ICT into all disciplines and making informatics a mandatory subject. This shift highlights the necessity for English teachers to embrace ICT-based instruction. Despite varying levels of ICT skills among teachers, many are eager to explore technology-based strategies for language acquisition

(Dermawan et al., 2023). The integration of technology in secondary English teaching supports personalized and independent learning, creating dynamic educational experiences (Hita et al., 2020). One of Junior High Schools in Bekasi, West Java represent a unique context for examining ICT optimization in language instruction. These schools use various electronic resources and integrate ICT into their curricula to enhance student experiences and learning efficacy. Training programs and continuous assessments aim to improve teachers' ICT proficiency and keep students motivated. Teachers are crucial in this evolving landscape, as their understanding of ICT's potential and adaptability to new teaching paradigms are vital. This research, focusing three junior high schools in Bekasi and Tambun, West Java, seeks to provide valuable insights into the use of ICT in teaching English as a Foreign Language and inform future efforts to harness ICT for effective language learning.

RESEARCH METHOD

This study employs a qualitative research design with a thematic approach. Thematic analysis (TA) is a method for identifying, analyzing, and interpreting patterns of meaning ('themes') within qualitative data (Braun & Clarke, 2016). This approach, as described by Braun & Clarke, 2006 and Arnold (2006), allows the researcher to identify, analyze, and report themes that emerge from the data. This is crucial for gaining a detailed understanding of various aspects of the research topic.

The subjects of this research consisted of 96 students, 3 English teachers, and 3 school administrators. The selection of subjects was conducted using purposive sampling, considering the criteria of schools that had implemented ICT in EFL instruction and the willingness of teachers and school administrators to participate in the research. According to Arikunto (2010), a data source is "a subject from which data can be obtained." In this qualitative research, primary data consists of words and actions, supplemented by documents. This study collected data from observations and interviews with teachers, students, and administrators at three junior high schools in Bekasi and Tambun, West Java.

Sugiyono (2017) outlines four data collection techniques: observation, interviews, questionnaires, and documentation, with triangulation combining all methods. This study employs interviews, observations, and documentation to gather comprehensive data. Interviews provide detailed insights, observations offer context, and documentation supplements and strengthens the findings, contributing to a thorough understanding of ICT use in English language learning at Yadika Junior High Schools. In qualitative research, the researcher's direct presence is essential, as they must be able to grasp meaning through interaction with the various values present in the research object. This cannot be achieved solely through interviews, observations, or document analysis. In this study, the primary research instrument is the researcher herself (human instrument), playing a central role in collecting, analyzing, and interpreting data. This means the researcher actively observes, interacts with, and interprets the phenomena under investigation (Creswell, 2018).

The data analysis technique involves content analysis, which systematically organizes and interprets data to derive meaning. According to Miles and Huberman (1994), this process includes three key stages:

- a. Data Reduction: Simplifying and focusing on relevant data to identify patterns and key concepts.
- b. Data Display: Organizing and visualizing data in a clear format to reveal trends and relationships.
- c. Conclusion Drawing/Verification: Interpreting data to form theories, validating conclusions, and ensuring reliability through reflection and comparison with existing literature.

For further clarification on the explanation, please refer to the figure 1 below.

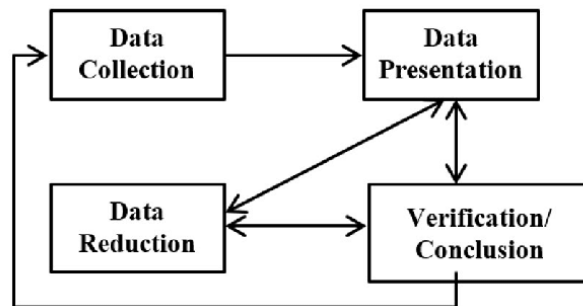


Figure 1. Milles dan Huberman Data Analyses Model

The data validation process in this research ensures the validity and credibility of findings through several methods:

- Observation Persistence/Consistency: Continuous observations to deepen understanding and focus on relevant aspects of the research topic.
- Triangulation: Uses multiple methods and data sources to confirm findings and reduce bias, including data source, method, and researcher triangulation.
- Peer Debriefing: Involves feedback from colleagues or experts to identify biases and improve research quality by discussing methodology, findings, and interpretations.
- Audit Trail: Maintains systematic documentation of the research process, decisions, and data handling to ensure transparency, accountability, and replicability.

RESULTS AND DISCUSSION

This research involved three classes at the junior high school level that utilize ICT in EFL teaching. Each class consists of 32 students, resulting in a total of 96 observed subjects. In addition to classroom observations, this research also conducted in-depth interviews with three English teachers, school principals, head of schools or vice principals for curriculum, and three students from each observed school. These interviews aimed to delve deeper into the types of ICT tools used, the benefits, and the challenges faced by teachers and students in integrating ICT into EFL teaching and learning practices

Types of ICT Tools

Creating a positive learning environment is essential for student success. The use of Information and Communication Technology (ICT) can enhance both the quality and enthusiasm of learning. In today's fast-paced world, integrating ICT into education is crucial. It makes learning more enjoyable, helps students understand material better, and boosts motivation.

At Junior High Schools, ICT tools have been part of their teaching approach since 2009. Teachers use tools like computers, projectors, and the internet to make learning more interactive and effective. This includes an English lab equipped with ICT devices. The goal is to improve student engagement and English language skills through these modern tools.

The Vice Principal of Junior High School 1 emphasized the importance of ICT, noting that it creates a more engaging learning environment and helps students develop their English skills. Similarly, the Principal of Junior High School 2 highlighted that ICT tools, such as projectors and sound systems, enhance student involvement and make lessons more interactive.

Teachers at Junior High School 1 use laptops, projectors, and various online resources like Canva, YouTube, and Google to enrich their lessons. Students also benefit from ICT by using tools like headsets for listening practice, smartphones for language learning apps, and Google Forms for assessments.

Observations across all junior high schools show that students are more engaged when ICT tools are used in teaching. Tools such as laptops, projectors, and online platforms like YouTube and Google Classroom make learning more dynamic and effective, helping students grasp and retain material better.

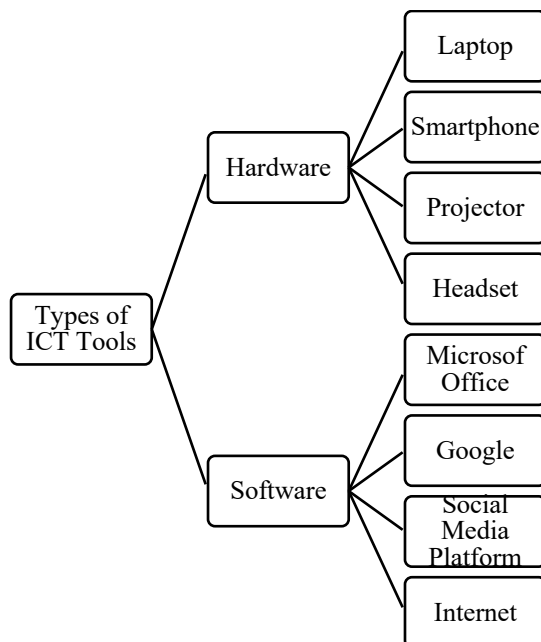


Figure 2. Types of ICT Tools

The Benefits of Using ICT

Using ICT in English language learning at all junior high school in this research brings many benefits. It not only improves English skills but also boosts student motivation, expands learning resources, develops digital skills, and offers flexible access to materials. Here's a summary of how ICT benefits English teaching:

1) Enhancing Motivation and Engagement in the Language Classroom

ICT makes learning more interactive and interesting. Students and teachers at Yadika schools find that ICT tools, like projectors and videos, help students stay engaged and motivated. For example, students report that ICT tools make lessons more engaging compared to traditional methods like lectures.

2) Encouraging Learner Autonomy and Student-Centeredness

ICT supports independent learning by providing students with various resources and tools. Students can access materials online, watch educational videos, and use interactive apps. This approach helps them learn on their own and makes learning more personalized.

3) Encouraging of authentic and interactive learning experiences

ICT tools like YouTube provide students with real-life English usage through songs, movies, and dialogues. This exposure helps students improve their pronunciation and understand the language better. For instance, listening to English songs helps with pronunciation and vocabulary, while watching videos enhances comprehension and reading skills.

4) Increasing the students' performance

ICT aids in enhancing various English skills. Headsets and videos help with listening, while interactive tools support speaking practice. Digital reading materials and writing apps assist with

reading and writing skills. Teachers and students both benefit from using ICT, as it makes learning more effective and engaging.

In summary, ICT significantly enhances the teaching and learning of English by making lessons more engaging, supporting independent learning, providing authentic language experiences, and improving student performance.

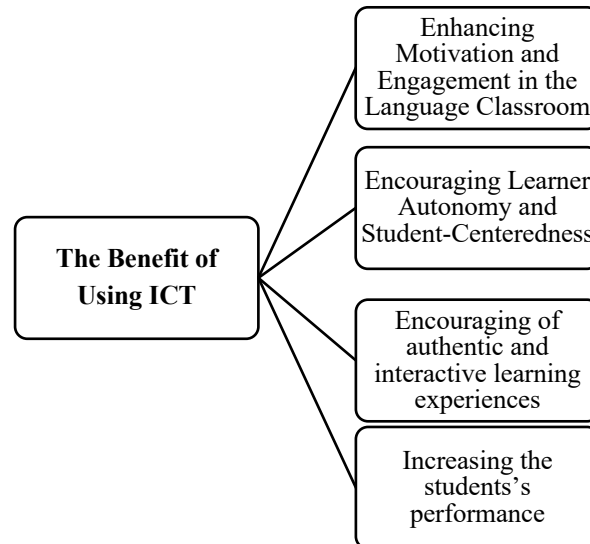


Figure 3. The Benefits of Using ICT in Teaching and Learning English

The Challenges of ICT Integration

Integrating technology into English teaching at SMP Yadika faces several challenges. These issues affect both teachers and students and stem from technological, pedagogical, and time-related factors.

Teacher Challenges

1. **Technological Factor:** Teachers struggle with inadequate ICT resources like computers, projectors, and unstable internet. For example, teachers often share projectors and face problems with laptops. They sometimes overcome this by using smartphones and sending materials via WhatsApp, but limited resources still impact teaching effectiveness.
2. **Pedagogical Factor:** Many teachers lack the skills to effectively use ICT tools beyond common applications like YouTube. They need more training to use various educational apps and integrate technology into lessons. For instance, some teachers only use PowerPoint and do not explore other tools that could enhance learning.
3. **Lack of Time Factor:** Teachers have many responsibilities beyond teaching, such as planning lessons and grading. This makes it hard for them to prepare ICT-based lessons, leading to a limited use of technology in the classroom.

Student Challenges

1. **Technical Factor:** Students sometimes face issues like unstable internet connections and technical problems with their devices. For example, internet issues can slow down their ability to search for materials or participate in online discussions.

2. **Technological Factor:** Students also encounter challenges with new applications, such as remembering login details or navigating new tools. These difficulties can hinder their ability to fully engage with ICT-based learning activities.

Addressing these challenges requires improving ICT infrastructure, providing better training for teachers, managing time more effectively, and resolving technical issues to enhance the quality of English education through technology.

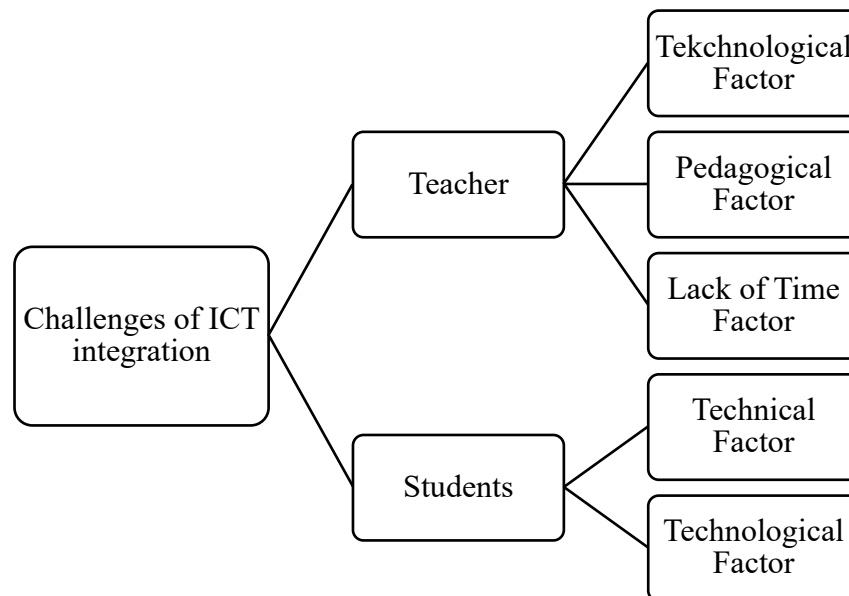


Figure 4. Challenges Encountered by Teacher and Students

Using Information and Communication Technology (ICT) in English language learning can create a more interactive and enjoyable learning environment. With the rapid advancement of ICT, tools such as computers, projectors, headsets, and internet access help enhance the quality and motivation of student learning. At junior high schools, since 2009, ICT has been used to support teaching and learning processes, utilizing devices like laptops, smartphones, and learning applications. ICT also allows the use of media such as PowerPoint and videos to present material in a more engaging and understandable way, as well as enabling online learning without spatial and temporal constraints.

The use of ICT at junior high schools in this research provides significant benefits, including increased student motivation and engagement, expanded access to learning resources, and the development of digital skills. ICT creates an interactive learning environment, enhances student autonomy in learning, and offers authentic and interactive learning experiences. For example, videos from YouTube help students with correct pronunciation and practice listening, reading, and writing skills simultaneously. Additionally, ICT aids in improving various English language skills, such as listening, speaking, reading, and writing.

Despite the many benefits of ICT tools, there are several challenges in its implementation. For teachers, the main challenges include limited access to devices and infrastructure, a lack of pedagogical skills in using ICT, and time constraints for preparing ICT-based materials. Students face difficulties related to internet access and logging into applications. These issues include unstable internet connections, login difficulties, and technical problems with applications. To optimize ICT

usage, improvements in technology access, digital competence development for teachers, better time management, and technical enhancements are needed.

The findings reveal that various ICT tools such as laptops, projectors, headsets, smartphones, and online platforms (e.g., YouTube, Canva, Google Classroom) are actively utilized in the EFL classrooms at junior high schools. This is consistent with previous research by Warschauer and Meskill (2000), who emphasized that ICT can significantly enrich language instruction through multimodal input and diverse media. The integration of ICT supports visual, auditory, and kinesthetics learning styles, which aligns with Fleming and Mills' (1992) VARK learning theory, demonstrating how technology can cater to different learner preferences. Furthermore, the institutional adoption of ICT reflects a broader trend toward digital transformation in education, a crucial aspect of 21st-century learning (UNESCO, 2011).

The use of ICT in the observed schools contributes positively to student motivation, autonomy, and skill development. These findings align with the socio-constructivist perspective, where learners actively construct knowledge through interaction with digital tools and content (Vygotsky, 1978). ICT tools offer authentic language exposure through videos, songs, and interactive activities—elements that enhance communicative competence. Additionally, the flexibility and accessibility of digital resources empower students to engage in self-directed learning, supporting learner autonomy as emphasized by Benson (2011). These benefits demonstrate the transformative potential of ICT in creating a learner-centered, motivating, and performance-enhancing classroom environment (Hennessy et al., 2010).

Despite its benefits, the integration of ICT in EFL teaching at Yadika Junior High Schools is hindered by several challenges. Limited infrastructure, insufficient pedagogical training, and time constraints among teachers reflect systemic barriers—challenges previously identified by Pelgrum (2001) and Tondeur et al. (2008). On the student side, technical issues and difficulties navigating unfamiliar applications point to a persistent digital divide that can hinder learning equity (Van Dijk, 2005). These findings emphasize that successful ICT integration depends not only on access to technology but also on digital competence and institutional support (Koehler & Mishra, 2009).

This study highlights the need for continuous professional development for teachers, focusing on both technical and pedagogical competencies related to ICT. Efforts to upgrade infrastructure and provide technical support are equally critical. Additionally, policymakers and school leaders should embed digital literacy into curriculum design to ensure that both educators and learners are equipped for a digitally mediated learning environment. Overcoming these barriers is essential for realizing the full potential of ICT in improving English language education.

CONCLUSIONS

The research highlights the significant role that Information and Communication Technology (ICT) plays in revolutionizing the teaching and learning process of English as a Foreign Language (EFL). ICT's tools widespread use has established it as a new cultural norm, shaping how both teachers and students engage with the language learning process. The integration of ICT is anticipated to significantly enhance English proficiency by serving as a valuable resource for learning, teaching, and assessment.

At the three junior high schools in Bekasi and Tambun West Java, various ICT tools are utilized. These include hardware like laptops and projectors, and software such as PowerPoint and Google Classroom. ICT tools facilitate interactive and engaging learning experiences, contributing to improved student participation and comprehensive language skill development. However, the adoption of ICT in classrooms is not without challenges. Teachers face issues related to inadequate technology infrastructure, limited digital skills, and time constraints. While students, being digital natives, generally adapt well to ICT, they still encounter technical problems and difficulties with new

applications. In summary, while ICT presents considerable potential to enhance English language education, effective implementation requires ongoing adaptation and readiness from both teachers and students. Addressing the challenges and leveraging the benefits of ICT will be key to improving the overall quality of English language learning.

REFERENCES

- AlMahrooqi, R., & Troudi, S. (2014). *English language teaching in the Middle East and North Africa*. Routledge.
- Altun, M. (2015). The role of information and communication technology in language learning and teaching. *International Journal of Language Education and Applied Linguistics*.
- Arnold, J. (2006). *Classroom research: A practical guide*. Cambridge University Press.
- Benson, P. (2011). *Teaching and researching autonomy in language learning* (2nd ed.). Routledge.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Creswell, J. W. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.
- Dermawan, M., Rahayu, D., & Sutrisno, T. (2023). Exploring technology-based strategies in EFL teaching. *Indonesian Journal of Language Education*, 11(1), 45–60.
- Fleming, N. D., & Mills, C. (1992). Not another inventory, rather a catalyst for reflection. *To Improve the Academy*, 11(1), 137–155.
- Ghavifekr, S., Kunjappan, T., Ramasamy, L., & Anthony, A. (2013). The role of ICT in education. *International Journal of Education and Development using Information and Communication Technology*, 9(3), 56–67.
- Heinich, R., Molenda, M., Russell, J. D., & Smaldino, S. E. (2002). *Instructional media and technologies for learning* (7th ed.). Pearson.
- Hennessy, S., Ruthven, K., & Brindley, S. (2010). Teacher perspectives on integrating ICT into subject teaching: Commitment, constraints, caution, and change. *Journal of Curriculum Studies*, 37(2), 155–192. <https://doi.org/10.1080/0022027032000276961>
- Kandasami, K., & Shah, H. (2013). ICT in education: A review of the impact on learning. *Educational Technology Review*, 22(1), 34–45.
- Kaya, S. (2015). Technology and student motivation in language learning. *Journal of Language and Education*, 7(4), 23–34.
- Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60–70.
- Pelgrum, W. J. (2001). Obstacles to the integration of ICT in education: Results from a worldwide educational assessment. *Computers & Education*, 37(2), 163–178. [https://doi.org/10.1016/S0360-1315\(01\)00045-8](https://doi.org/10.1016/S0360-1315(01)00045-8)
- Philips, S. (1997). Multimedia for active learning. *Journal of Educational Technology*, 16(1), 77–85.
- Rini, T., Suryaman, A., & Wiyarno, T. (2019). Interactive multimedia in education. *Educational Innovations Journal*, 19(3), 89–104.
- Romero, M. (2008). The evolution of ICT in education. *International Journal of Educational Research*, 35(2), 123–135.
- Suherdi, D. (2012). The role of ICT in language teaching and learning. *Journal of Language and Technology*, 9(4), 45–59.
- Suriansyah, S. (2017). Technical proficiency in language teaching. *Journal of Language Education*, 5(2), 112–126.
- Tanjung, M. (2018). Collaborative knowledge construction in ICT-based education. *Journal of Educational Collaboration*, 23(1), 67–79.

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- Tondeur, J., van Braak, J., Ertmer, P. A., & Ottenbreit-Leftwich, A. (2008). Understanding the relationship between teachers' pedagogical beliefs and technology use in education: A systematic review of qualitative evidence. *Educational Technology Research and Development*, 56(3), 297–308. <https://doi.org/10.1007/s11423-006-9022-1>
- UNESCO. (2011). ICT competency framework for teachers. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000213475>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Warschauer, M., & Meskill, C. (2000). Technology and second language teaching. In J. Rosenthal (Ed.), *Handbook of undergraduate second language education* (pp. 303–318). Lawrence Erlbaum.

