



Teachers' Perception and Utilization of Technology in English Teaching and Learning in Junior High School

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Abstract

This study aims to investigate teachers' perceptions and utilization of technology in English teaching and learning in junior high school (SMPN 01 Labuapi), and also challenges in using technology in English language teaching. This research used a qualitative descriptive approach. The data were collected through interviews, observations, and documentation. The data findings show that teachers have a positive perception of technology, recognizing its role in enhancing student motivation, engagement, and understanding in English lessons. The challenges in using technology in English teaching are limited infrastructure, uneven internet access, and time constraints still hinder optimal implementation. The study emphasizes how crucial digital competency, preparation for teachers, and institutional support are to successful technology integration in English language instruction. In the digital era, encouraging flexible and student-centered learning requires bolstering the role of educators as digital facilitators.

Keywords: *Teachers' Perception; Technology Integration; English Teaching and Learning*

Introduction

The era of society 5.0 is marked by a human-centered civilization built on cutting-edge technology like big data, the Internet of Things (IOT), and artificial intelligence (AI). Humans are not replaced by well-designed technology in this day and age; rather, it is a tool to improve human life and productivity, including in the area of education. Technology plays an important role in education in the 21st century. Information and communication technology (ICT) significantly affects all areas of human life in an important part of today's era (Gnambs, 2021) (in Akram et al., 2022). Rapid technological advances have brought about major changes, namely the use of technology in changing the education sector and teaching practices to be more interactive and productive. Using various tools in traditional and online teaching spaces will help build a proactive class (Akram et al., 2022). In addition to improving the quality of training, technology-integrated teaching methods allow students to effectively increase their knowledge and information, improve their motivation, and build their abilities (Akram et al., 2021a).

Since technology is always evolving, school systems must ensure that teachers receive sufficient training in order to integrate it into the classroom in an effective way (Brooks-Young, 2007; ChanLin, 2005; Gordon, 2011) (in Pepe, 2016). According to Pepe (2020) stated that the twenty-first century's

trends and challenges suggest that humans will *"live in a new economy—driven by technology, fuelled by information, and propelled by knowledge."* However, teachers and administrators sometimes lack the experience needed to implement systemic change and incorporate technology into long-term reform initiatives. This is a need that must be met.

According to Abbas and Muslem (2017) stated that using technology to teach English is not an entirely new concept or method for educators worldwide, particularly in nations where English is not the primary language. Staying abroad and utilizing multimedia are two efficient strategies to help students get better at the language (in Katemba, 2020). The recent studies in teachers' development of their ICT pedagogical practice skills now require them to use information and communication technology (ICT) in the classroom (Abel et al., 2022). The combination of the function of humans and the use of cutting-edge technology has significantly changed English language instruction in the era of society 5.0. Instead of just imparting knowledge, teachers now serve as facilitators, helping students to access and use a variety of digital learning materials.

Even if technology speeds up and streamlines the learning process, human interaction is still crucial for developing empathy, communication, and character traits that machines cannot replicate. As a result, in this digital age, the collaboration of educators and technology becomes crucial to developing student-centered, relevant, and adaptive English language instruction. According to Abel et al. (2022) argue that teachers' perspectives can influence whether or not they use technology in the classroom, which is crucial for successful technology integration. Although a variety of elements contribute to effective technology integration, instructors' proficiency and capacity to adapt technology-based learning activities to students' requirements are the most important aspects.

Abel et al. (2020) also added that teachers who integrate technology in the classroom demonstrate various levels of confidence, collaboration, and cooperation. However, there is a lot of training and practice that needs to be done. Teachers are having difficulties integrating technology into the classroom, including inadequate time, resources, and training. Further research is still required to completely understand how teachers regard technology in the teaching and learning process in the classroom to close the gap between their impressions of its integration and their lack of readiness (Abel et al., 2020)

Teachers' perceptions are generally considered a key factor influencing technology use in EFL classrooms. Since teachers' perceptions are important and may affect how teachers use or do not use technological tools in their classrooms. Based on these conditions, it is important to conduct in-depth research on how teachers perceive the use of technology and to what extent they utilize it in the learning process, particularly at the Junior High School (SMP) level.

Specifically, this study aims to examine: What are teachers' perceptions and utilizations of technology in English teaching and learning in junior high school? What challenges do they face in using technology in English language teaching?

Literature Review

Technology for Education

According to Amalia (2022) stated that technology has spread to several areas of daily life in recent years. It has also had an impact on education and opened new opportunities for both educators and students. The area of educational technology encompasses individual study at home and the use of technology in educational environments, such as colleges or universities. Implementing technology in the classroom, creating, planning, and overseeing learning resources and tools, and the process of learning

with technology are all included in the broad category of educational technology (Aziz, 2010; Kaware & Sain, 2015) in (Amaliani, 2022).

Based on the theory of educational technology proposed by Wegerif and Major (2024) argued that technology and education are inextricably linked and hence need a different theoretical underpinning than traditional pedagogy. They contend that technology should be viewed as an active element that influences how people think, communicate, and learn rather than just as a tool that assists in learning. The idea of dialogic education, which holds that learning happens through meaningful discourse with people as well as through engagement with technological tools that extend dialogic space and time, is at the center of their approach.

According to Wegerif and Major (2024) illustrate through case studies that, depending on how it is framed and used, technology can either foster or hinder creativity and collaboration. They support a reflective, design-based approach that addresses not only pedagogical objectives but also more general social issues like digital disinformation, climate change, and global citizenship, since they see educational technology as a design science. In the end, the dialogic theory advocates for educational technologies that stimulate student participation, encourage teamwork, and assist in the growth of critical, connected, and future-ready learners.

Technology has significantly changed daily living since 2000, and is utilized in every field of existence, including education. According to Amaliani (2022) claimed that the advancement of computer technology and the emergence of mobile devices such as smartphones, laptops, tablets, and e-book readers since 2007 have opened wider access to digital learning. These devices are lightweight, multifunctional, and support learning anywhere. In addition, the emergence of the second-generation internet (Web 2.0) allows interaction and collaboration through blogs, forums, and social media. Persson and Nouri (2018) and Dabas (2018) stated that this technology not only facilitates access to information but also encourages active and collaborative learning (in Amaliani, 2022). Thus, mobile technology and Web 2.0 have revolutionized education to be more flexible and interactive.

Based on the study of Amaliani (2022), she stated that the use of technology in education brings many benefits, especially in increasing accessibility, flexibility, and effectiveness in the learning process. The roles of teachers and students have also shifted significantly; students are now active agents in the learning process, while teachers act as facilitators who provide tools and a supportive learning environment. In language learning, technology provides a variety of authentic and interactive media that strengthen mastery of language skills, both oral and written.

The use of technology in language instruction has also been discussed as a way to foster the development of critical thinking, problem-solving, creativity, and teamwork—skills that will be valuable in the workforce of the future. Students are exposed to real-world scenarios through problem-solving exercises, where they must apply their knowledge to solve problems using the resources at their disposal. Technology can provide these resources, but learners' creativity and reasoning determine how well they are used. Involving students in cooperation is often referred to as collaborative working (Amaliani, 2022). The latest theory of language acquisition includes exposure to language and culture, telecollaboration, and interaction. The use of technology for communication, teamwork, and student involvement in their educational process is reflected in new models and approaches.

Teacher's Perceptions

According to Eteokleous (2018), Perception is how something is viewed, understood, or interpreted (in Abel et al., 2023). Perception is a person's ways of thinking or acting, which starts with the gathering, identification, and interpretation of sensory data shaped by their experiences (Kusumanigum, 2023). There are two types of perception, namely positive perception and negative perception. Positive

perception is a type of perception that encompasses all continuous responses and knowledge that follow the perceived object, while a negative perception is information or a reaction that deviates from the object of perception (Kusumanigrum, 2023).

According to Kusumanigrum (2023), Teacher perception is the process of teacher attention and the process of understanding important information and insights that provide about the teacher's ability to focus their attention on relevant information. Teachers use pedagogical knowledge gained through experience, so that each teacher has a different perception from other teachers. This suggests that expert teachers have a more complex and structured pedagogical knowledge scheme, enabling them to make more precise and rapid judgments in dynamic classroom situations. Thus, the difference in perspective between novice and expert teachers is not only a matter of experience, but also the ability to interpret classroom information meaningfully in the context of learning objectives.

A technique that teachers employ to manage the classroom demands to simplify the complexity by distinguishing the importance of classroom activities and choosing particular events to focus on. Such selectivity mainly depends on a teacher's ability to observe and visual perception (Kusumanigrum, 2023). Teachers' views on using technology in the classroom are influenced by several variables, including the lack of both initial and continuous technology training and a streamlined process for incorporating ICT into curriculum and instruction (Abel et al., 2022). Many teachers are concerned about the lack of technology training, technical support, and dependency on software and hardware, concerning their attitudes towards ICT integration. Marshall (2016) claims that teachers have too many students and little time to incorporate ICT into their regular lesson plans, and many feel that learning ICT skills is challenging (in Abel et al., 2022).

According to Abel et al. (2022) claimed that teacher perceptions in using technology in the classroom have been classified into two categories, namely: teacher-centered perceptions and student-centered perceptions. Teacher-centered perceptions, which are associated with behaviorism, frequently emphasize abiding by moral standards and laws. Teachers with student-centered perceptions, on the other hand, put more emphasis on each student's needs and well-being.

Teacher Perceptions on Integrating Technology

Technology integration in English language teaching (ELT) is widely acknowledged as an essential element of education in the twenty-first century. Several studies have highlighted how important teacher perspectives are in deciding how much and how well technology is used in classrooms (Tondeur et al., 2017). In the study of Abel et al. (2022) claimed that they explored teachers' perceptions of ICT integration in classroom learning, using meta-ethnography methods on 22 qualitative studies. The result of the study showed that internal and external factors influenced the diversity of teachers' views.

Teachers' perceptions of technology greatly determine the extent to which they will accept, utilize, and integrate technology into their teaching practices. Teachers with positive perceptions of technology tend to more easily adopt and integrate digital tools to support learning. Conversely, negative teacher perceptions can be a major barrier, even if infrastructure and training are available (Ertmer & Ottenbreit-Leftwich, 2010). Teacher perceptions have several factors that influence them, including technological readiness, personal experience, self-efficacy in using technology, and support from institutions and colleagues (Tondeur et al., 2017).

The Technology Acceptance Model (TAM), which was first presented by Davis in 1989, is one of the theories that is frequently used to examine teacher perspective. According to TAM, perceived usefulness—or how much instructors think technology will enhance their ability to teach—and perceived simplicity of use—or how simple the technology is to use—are the two primary criteria that influence teachers' acceptance of technology in the educational setting. Based on the recent research by Wang et al.,

(2021), teachers who thought technology was easy to use were more likely to adopt online learning platforms.

In addition, theory by Mishra and Koehler's (2006) TPACK (Technological Pedagogical Content Knowledge) theory is also very relevant. Based on TPACK, teachers must have a comprehensive understanding of pedagogy, technology, and topic expertise to successfully integrate technology. According to research by Koh et al. (2020) claimed that educators with good TPACK competences are more likely to view technology favorably and be able to create creative digital-based learning.

Teachers' experiences during the COVID-19 pandemic have a major impact on their perceptions of technology. Trust and Whalen (2020) found that after being compelled to adjust to bold learning, many teachers felt more comfortable with technology, which indirectly altered their opinions to be more positive. This demonstrates that as teachers gain experience and engage directly with technology in authentic learning environments, their perspectives can also improve.

Based on Levy (1997) provides a basic definition of computer-assisted language learning (CALL) as "the search for and study of applications of the computer in language teaching and learning" (in Boonmoh et al., 2021). From traditional teaching methods to more contemporary developments like virtual learning environments and web-based distance learning, CALL encompasses a broad spectrum of ICT applications and approaches to teaching and learning foreign languages (Schmid, 2009) (in Boonmoh et al., 2021).

Language learning in the twenty-first century also takes place on mobile devices. Learning a language with the assistance of a mobile digital device is known as mobile-assisted language learning (MALL). MALL emphasizes on the continuity or spontaneity of access and engagement across many contexts of use, which sets it apart from CALL. MALL uses personal, portable gadgets that facilitate innovative learning methods (Chinnery, 2006; Kukulska-Hulme & Shield, 2008) (in Boonmoh et al., 2021).

As a result, teacher perceptions toward technology are always changing due to a variety of external and internal factors. As a result, initiatives that emphasize enhancing digital literacy, continuous professional growth, and institutional support can boost teachers' positive views and accelerate the integration of technology into teaching.

Challenges in Teachers' Perception and Utilization of Technology in English Teaching and Learning

Although technology offers many opportunities in English language learning, teachers still face a number of the following challenges:

1. Lack of digital literacy and pedagogical technology competency, so that teachers have difficulty integrating technology effectively.
2. Lack of professional training, causing teachers not to get support to develop skills in using digital tools optimally (Trust & Whalen, 2020).
3. Limited access to technology, in schools there is still limited internet network and unstable devices.
4. Negative perception of technology
5. Anxiety about the changing role of teachers, especially with the emergence of intelligent technology such as AI which is considered to be able to replace the role of teachers (Major & Wegerif, 2024).

Methodology

This study used a **descriptive qualitative research design** to explore English teachers' perceptions and utilization of technology in teaching and learning in junior high school, especially at SMPN 01 Labuapi. A qualitative approach was selected because it enables a thorough comprehension of participants' experiences and viewpoints in their natural setting. According to Miles and Huberman (1994), qualitative research is beneficial for examining how and why particular events occur because it highlights the significance, context, and complexity of human interactions. It was chosen to gain a comprehensive grasp of the teachers' perceptions, utilization, and challenges in integrating technology into the teaching and learning process. The participant in this study are **English teachers from junior high schools** in SMPN 01 Labuapi. A purposive sample technique was employed with the teacher who has prior experience integrating technology into their teaching of English.

The instruments used in this research were: **semi-structured interviews, observation checklists, and documentation analysis in the classroom of seventh-grade students**. This study collected the data for 3 weeks through scheduled interviews, observation, and documentation in the classroom. The data were analyzed using thematic analysis, which revealed recurrent themes and patterns related to the frequency, forms, and perceptions on technology use of teachers.

Result

This section shows the results found from teachers' perceptions and utilization in English teaching and learning at junior high school (SMPN 01 Labuapi).

Teachers' Perception of Technology in English Teaching and Learning

This study shows that teachers have a positive perception of the use of technology in English learning. The benefits of integrating technology in English learning are table below;

Table 2. Teachers' perception of technology in English teaching and learning

No.	Teachers' positive perception of integrating technology in English learning
1.	Technology can increase students' motivation and interest in learning, because students are already close and intimate with digital technology in the current era.
2.	Make the class feel fun, interesting, and interactive so that it can make students more enthusiastic in participating in learning and make it easier for students to understand the lessons.
3.	Provide many variations of English teaching methods, so that learning is not monotonous and can be adjusted to the different needs of students.
4.	Facilitate access to digital learning resources so that teachers and students can access learning materials repeatedly.
5.	Improve the digital skills of teachers and students, so that they can face the challenges of education in the current digital era.

Positive perception of teachers is also influenced by experience and professional competence in using technology. Teachers have attended various trainings relevant to the use of ICT in learning. The trainings that have been attended are Visual Coordinator Training (VCT), Preparing for Disasters, PEMBATIK or ICT-Based Learning organized by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) of the Republic of Indonesia through the Center for Data and Information Technology (Pusdatin). With these trainings, teachers can be equipped with knowledge and practical skills in applying technology in teaching English effectively and adaptively.

An experienced teacher who has undergone training helps teachers to increase their confidence in implementing technology into English lessons in the classroom. An experienced teacher will always prepare materials and facilities to support learning in the classroom, such as the use of Wordwall. The teacher will prepare by trying many times. This is done to ensure that the application can be accessed by students and can run well according to the learning objectives. The teacher also prepares supporting facilities such as internet connection, LCD projector, laptop, and audio-microphone devices.

The teacher's attitude towards the challenges faced in the limited facilities in the classroom is to buy their own teaching support tools in the classroom. This attitude is a teacher's responsibility to be able to maximize English teaching even though the infrastructure and facilities in the school are inadequate. Overall, the teacher's perception of the use of technology in English learning is very positive and shows that the experience, training, and readiness of teachers play an important role in the success of technology integration in teaching and learning activities.

The Utilization of Technology in English Teaching and Learning

The results of collecting data from this research are shown in the table below.

Table 1. The result of using technology in English teaching and learning

No.	Using technology in the classroom.
1.	English teachers have actively integrated technology into English learning, although they still face several challenges and obstacles in using technology in the classroom.
2.	The use of technology in English learning activities is by the material in the teaching module/lesson plan, and shows that teachers have adapted to changes in learning in the 21st century.
3.	Platforms that are often used by English teachers are Wordwall, Canva, Quizizz, WhatsApp, Google Classroom, and Zoom Meeting (which was used during the COVID-19 pandemic).
4.	The use of technology in classroom activities was applied in the learning aspect. Include listening skills, reading skills, grammatical, and vocabulary.

Teachers who were respondents in this study stated that technology was applied in learning aspects such as listening skills, reading, grammar, and vocabulary in the classroom activities.

- a. Listening skill: Students are presented with videos in front of the class via an LCD projector so that students can listen directly. This is not only to train listening skills, but also to increase students' interest in learning because there is a media learning that integrates technology that interests students more than traditional methods.
- b. Reading skill: Students can read the text that has been shown in the video, such as daily text, in the video presented, there is text that can be read by students while watching the video.

- c. Grammar: The grammar aspect can also be integrated into the use of technology, by using the Wordwall platform, which is one of the websites often used by English teachers. The use of Wordwall can provide interactive grammar exercises, making students more motivated and enthusiastic in participating in grammar learning that may be considered more difficult by students.
- d. Vocabulary: Students can find and understand new vocabulary from the videos shown, and also use Wordwall. This technology integration can be considered effective because it combines audio, visual, and direct practice elements. This method helps students remember and use the vocabulary more easily.

1. Challenges in Using Technology

- a. Lack of adequate facilities and infrastructure, such as speakers and LCD projectors.
- b. The school's internet network (Wi-Fi) is not evenly distributed across all classes.
- c. The availability of digital devices is still uneven.
- d. Students' abilities in using digital differ so that they are not evenly distributed in terms of understanding in using technology.
- e. Additional burden for teachers in preparing learning.
- f. Lack of time availability in the process of integrating technology into learning, both in planning, implementation, and evaluation.

The challenges in using this technology show that although technology has many benefits in teaching English, infrastructure support, further training, and collaboration between schools, teachers, and the government are still very much needed so that the integration of technology in English learning can run optimally and evenly.

Discussion

The results of this study indicate that English teachers at SMPN 01 Labuapi have a positive perception of the use of technology in learning. Teachers' perceptions that technology has an important role in increasing students' interest, participation, and motivation to learn, making classes more interesting and interactive. It is easier to understand the material being taught, especially in skills such as listening, reading, grammar, and vocabulary. These results are consistent with Davis' (1989) Technology Acceptance Model (TAM) theory, which states that a person's intention to use technology is influenced by their perceptions of its usefulness and ease of use. Teachers are more likely to integrate technology into their lessons if they believe the technology is useful and easy to use.

Using platforms like Wordwall, Canva, Quizizz, and Google Classroom demonstrates how teachers have modified learning with various digital media that are interactive and student-centered. This backs up *Wegerif and Major (2024)* emphasize that technology is not just a tool, but an active agent in shaping ways of thinking, communicating, and learning. Integrating technology into language teaching is essential to increase student participation, expand access, and improve the learning process.

The teachers who responded have participated in programs such as PEMBATIK and Visual Coordinator Training (VCT), demonstrating that their confidence in incorporating technology into the

classroom is strongly influenced by their proficiency in ICT. This is consistent with Ertmer & Ottenbreit-Leftwich's (2010) finding that personal factors such as teacher training and beliefs about technology greatly influence the adoption of technology in the learning process. As noted by Mishra & Koehler (2006), this teacher preparation is further strengthened by their comprehension of TPACK (Technological Pedagogical Content Knowledge), which demonstrates that teachers can effectively design technology-based learning.

However, there are still several challenges that need to be considered and need to be supported by schools and the government. Therefore, such support is very much needed, both in the form of providing infrastructure, ongoing teacher training, and developing inclusive digital-based education policies.

Overall, the use of technology in English learning at the junior high school level can be effective if the teacher's perception is positive, the teacher's ICT competence is sufficient, and supported by adequate facilities. This study emphasizes the importance of strengthening the role of teachers as facilitators of digital learning, as well as the need for policies that support comprehensive and sustainable technology integration.

Conclusions

This study shows that English teachers at SMPN 01 Labuapi have a positive perception of the use of technology in learning. Technology is considered capable of increasing student motivation and understanding, as well as making learning more interesting and interactive. However, challenges such as limited infrastructure and training are still obstacles. Support in the form of ongoing training and adequate facilities is needed to support effective technology integration. The role of teachers as digital facilitators is key to presenting adaptive and relevant learning in the digital era.

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