

CHAPTER II

THEORETICAL REVIEW

1. THEORETICAL REVIEW

1. Learning Media

a. Definition of Learning Media

Media originates from the Latin word which means Therefore, media can be understood as a means of introducing or conveying messages from the sender to the recipient. In summary, media serves as a vessel for the messages the source intends to communicate to the target audience. The content received is an instructional message, and the ultimate goal is to facilitate the learning process. Learning, on the other hand, is a conscious effort by the teacher to assist students in their educational journey, enabling them to learn according to their needs and interests. In other words, learning is a deliberate effort to manipulate educational resources to foster the learning process among students. Within this learning framework, students are the subjects who engage in learning, while teachers are the facilitators who guide the teaching process. Teaching can also be defined as the process of assisting individuals or groups in conducting learning activities, ensuring that the teaching and learning process occurs effectively (Fitri et al,2024).

Media can be influenced by technology, symbolic systems, and delivery skills. From an educational perspective, media serves to convey information

from teachers to students, facilitating effective learning (Naz & Akbar, 2008). The most prominent characteristics of a medium are its mechanical and electronic aspects, which determine its function, form, and physical attributes. Certain media can enhance learning abilities by facilitating activities that students may struggle to perform independently. Additionally, media can be described and differentiated based on characteristics that help in understanding or utilizing available symbolic systems. Consequently, media can be defined and categorized by clusters or profiles of characteristics, symbolic systems, and processing capabilities; some of these capabilities may not be applicable in specific educational contexts (Kozma, 2021).

According to Sardiman et al., (2011), the term Communication between teachers and students occurs throughout the learning process, with the teacher serving as the provider of information and the student as the recipient. This process functions effectively when communication flows smoothly; the teacher must convey information clearly, and the students must possess the ability to comprehend it well. To enhance communication between the information provider and the recipient, effective communication tools or media are essential. Media can be defined as a means that influences or persuades others' thoughts or feelings and can motivate students to engage enthusiastically in their learning at school (Mubarak et al, 2021).

Media refers to materials or events that motivate students to learn to acquire knowledge, skills, and attitudes. It can be concluded that teachers, books, and the school environment serve as forms of media (Sanjaya, 2006). Rohani

defines” learning media as a means of communication for the teaching and learning process, ensuring that the learning experience is effective, which he terms Instructional Media”. According to Azikiwe (2007), learning media can encompass anything a teacher uses to engage all five senses: sight, hearing, touch, smell, and taste when delivering a lesson. Learning media acts as an information carrier that can be specifically designed to meet the objectives of teaching and learning situations in schools. Riyan states that media is one of the essential elements that must be considered to attract students' attention and enhance their progress, specifically by improving learning outcomes and student attitudes (Rian Vebrianto and Kamisah Osman). Media includes materials, tools, and methods or techniques used for teaching and learning activities, to facilitate effective educational communication and interaction between teachers and students.

Previous researchers argue that the term is derived from the Latin word which means intermediary or introducer. Media can also be interpreted as a means of conveying meaning to influence or persuade others' thoughts and feelings, as well as to motivate students to engage enthusiastically in their learning at school (Hasan, 2021).

There is no universally accepted definition of learning media among experts, as the field of educational technology and media is highly complex and continually evolving. However, here are some definitions and perspectives from leading authorities in the field:

- 1) Clark and Mayer, experts in the field of multimedia learning, define learning media as “any communication medium that can be used to convey information to learners, such as text, graphics, audio, animation, and video”. (Clark et al., 2003)
- 2) According to George Siemens, a pioneer in the field of e-learning, learning media can be defined as “any medium or technology used to facilitate the learning process. This includes everything from books and whiteboards to computers and the internet.” (Siemens et al., 2005)
- 3) The International Society for Technology in Education (ISTE) defines learning media as “any method or tool that enhances teaching and learning, including traditional and digital resources, online and face-to-face environments, and interactive multimedia.”

It can be concluded that educational media encompasses any medium or tool used to support teaching and learning processes, whether in traditional or digital environments. This includes a diverse array of materials and resources that aid in the acquisition and retention of knowledge, skills, and attitudes. Educational media refers to the tools, sources, and materials employed during the teaching and learning process. These media can take various forms, including text, audio, video, interactive multimedia, social media, and virtual reality.

b. Types Of Learning Media

According to Creswell (2014), Media is a vital tool for educators to deliver learning materials and foster creativity. The use of learning media can

contribute to achieving successful learning outcomes. A study on the effectiveness of educational media identified several types that can be utilized, including video-based media, interactive media, the internet, and social media, each of which has its advantages and disadvantages in enhancing student learning outcomes.

1) Video-Based Media

Video-based media combines textual and graphic elements with audio components. It encompasses moving images, including movies, documentaries, instructional videos, and animations. This form of media is frequently utilized in the educational process to convey information and visual content to learners regarding specific subjects or topics. Video-based media can be presented as live-action or animation and may incorporate narration, subtitles, or text overlays to enhance comprehension (Safitri, 2023).

This media is perfect for students who prefer to interact with visual and auditory stimuli. It effectively presents concrete information and offers an engaging experience. Its application is commonly seen in classrooms and online courses. Video-based media is highly engaging and can provide a more immersive learning experience for students. Overall, it serves as a versatile educational tool that influences complex concepts, enhances learning, and inspires enthusiasm among students (Yudianto, 2017).

2) Interactive Media

According to Benardo (2011), Interactive media refers to platforms that enable learners to actively engage with content, including simulations, games, quizzes, and interactive multimedia. These platforms provide immersive and captivating learning experiences that encourage exploration, experimentation, and problem-solving. Interactive media can be either digital or physical and may encompass audio, video, text, images, or animations.

One application of this medium is the gamification strategy, which motivates learners, encourages competition, and increases engagement in the educational process. Interactive media emphasizes the visual learning style by being dynamic and effective, serving to complement other learning materials or acting as an independent resource to provide students with an interactive and personalized learning experience (Sanjaya, 2009).

3) Internet and Social Media

The internet plays a significant role in education, as students frequently use it to gather information related to their lessons. During their free time, they often search for materials or answers to support their learning processes (Apriansyah, 2018). Additionally, social media serves as both a source of entertainment and a platform for accessing important educational information. Utilizing social media as a learning medium has been shown to enhance the quality and creativity of teaching. The integration of the internet and social media in education involves the use of online resources

and social networking platforms, including various applications such as Google services, Yahoo, Zoom, Quizizz, Facebook, Twitter, LinkedIn, Instagram, and others, to enrich the learning experience. This approach encompasses both formal and informal educational activities, enabling educators and learners to effectively create, share, and discuss educational content (Lestari et al, 2020).

And according to Arysad, there are several types of learning media as follows:

1) Human-based media

Human-based media refers to platforms utilized for transmitting and communicating roles or information. This type of media is particularly valuable when our goal is to change attitudes or when we wish to be directly involved in monitoring the learning process of students. One of the essential elements of learning through human-centered media is interactive lesson design (Darodjat, 2021).

2) Print-based media

According to Mathews (2013), print media in education encompasses a variety of widely distributed materials, such as newspapers and magazines, that are utilized to promote learning in the classroom. Consequently, it can be concluded that print-based media in education includes all forms of printed materials, including textbooks, modules, worksheets, articles, and so on.

3) Visual-based media

According to Suprijanti (2009), audio-visual media are materials or tools utilized in educational settings to support both written and spoken communication in conveying knowledge, attitudes, and ideas. The effective delivery of knowledge necessitates students' understanding of concepts and their ability to solve problems. Furthermore, visual media play a crucial role in the learning process, as it can enhance comprehension and improve memory retention.

4) Audio-visual based media

According to Ainina (2018), the use of audio-visual learning media significantly engages students in the classroom and fosters positive interaction among them. Furthermore, the implementation of this media has led to a notable improvement in students' academic performance compared to the control group. This enhancement can be attributed to the teacher's incorporation of audio-visual-based learning tools during the instructional process. These resources were designed to develop students' abilities and skills in asking questions and active listening.

It can be concluded that the media utilized in education is quite diverse, particularly in the realm of printed teaching materials. Almost all schools employ printed resources such as books, journals, and magazines. However, teachers should not confine themselves to using only books, as there is a wide variety of teaching media available. This diversity is essential to keep students engaged and prevent boredom

during lessons.

c. Characteristics of Learning Media

Learning media possess characteristics that stimulate the senses. In contrast, Gerlach and Ely suggest that there are three key characteristics of media based on their usage: first, media can be employed to regulate teaching and learning activities; second, media can assist in managing these activities, particularly when the teacher lacks proficiency in their use (Switri, 2022). From various perspectives, the media exhibit distinct characteristics. Specifically, learning media encompass attributes such as purpose, method of use, utilization, and economic considerations (Yunitasari, 2023).

In addition, Suparlan (2020) emphasized that there are three characteristics of learning media. First, fixative media can be recorded, stored, reconstructed, and preserved from various events and activities related to the message being conveyed. Second, manipulatives allow for the simplification of messages that may be difficult to perceive with the naked eye or that are abstract, transforming them into more complex and concrete representations due to spatial and temporal constraints. For example, the discussion of cyclical material can be presented more clearly and concisely. Third, distributive media can facilitate the exchange of events from the same location to different places, showcase typical environments to students, reach a broad audience, and enhance student engagement after they have viewed or interacted with the events presented in a slightly open format.

2. Technology

a. The Importance of Technology

According to Zainiyati (2017), the has been term from the Greek word for the systematic treatment or handling of a subject, while the word technology refers to skill, expertise, or science. The word technology itself is derived from construction or building. Technological advancements have become an integral part of the educational environment, making this aspect crucial for the teaching profession. Teachers can leverage technology to enhance the teaching and learning process. When discussing technology in the context of English language acquisition, the term is frequently employed. Given that technology is now a fundamental component of our daily lives, it is essential to reconsider how to effectively incorporate technology into the curriculum, aiming to embed it into teaching practices to improve learning outcomes.

b. The Role of Technology in Education

The role of technology in education is important and growing. By utilizing technology effectively, educators can create a more inclusive and interactive learning environment that is in line with the needs of students in the digital age. However, it is also important to address the challenges that exist to ensure that all students can benefit from advances in education technology.

In other words, technology is an important element of the learning experience, which represents a significant consideration for educators, from the preparation of learning experiences to implementation in the English language learning process, which has become one of the most significant trends in the

world of education (Ambarita, 2021). According to Solanki et al. (2012) argue that English language teaching methods have evolved in response to technology. The researchers argue that the application of technology helps students learn English based on their interests.

According to Lawrence, as cited in Gilakjani (2017), technology supports students in the process of self-directed learning by providing access to a wealth of information that may not be available through their instructors. Teaching technology involves a systematic effort to design, implement, and disseminate the entire learning process for a specific purpose. This approach is grounded in research on human learning and communication, utilizing a combination of human resources and advanced tools to ensure an effective learning experience. Technology must be harnessed to facilitate the transformation of education. It is the application of information for practical purposes (Spector, 2012). In other words, technology represents the application of knowledge to achieve tangible outcomes. A more formal definition states that technology is "the systematic application of scientific or other organized knowledge to practical tasks" (Galbraith, as cited in Newby, 2000). Based on the explanations above, it is evident that technology significantly influences the field of education. It can be employed to enhance the quality of education across various disciplines, including English language learning.

According to Masruddin (2017), one area that requires improvement is the utilization of media in education. Various studies conducted by academics demonstrate that media can significantly enhance teachers' ability to convey

educational messages to students more effectively. Additionally, media has a positive impact on fostering more creative and dynamic behaviors among students. Therefore, the role of media is crucial in the learning process, functioning not only as a tool but also as an integral component of the education system. The integration of technology as media in the classroom offers substantial benefits. Moreover, media technology can heighten student interest in the learning process. Movies, as a form of modern technology, serve as an effective medium due to their engaging nature. Computer technology represents an innovation that enables the presentation of various forms of stimuli, including human interaction, reality, moving or still images, written text, and sound recordings. Consequently, this can lead to a more optimized learning experience. However, the challenges that arise are more complex than one might assume. Educators are responsible for integrating these five forms of stimuli into the learning process. Unfortunately, many educators lack the necessary skills to effectively incorporate these stimuli into their programs.

The role of technology in education is both significant and expanding. By utilizing technology effectively, educators can foster a more inclusive and interactive learning environment that aligns with the needs of students in the digital age. However, it is crucial to address the challenges that exist to ensure that all students can benefit from advancements in educational technology. According to Syaodih (2020), the application of technology in education offers several substantial benefits for the learning process. Assisting Learners in Understanding Concepts, Theories, and Skills Technology provides a range of

tools and platforms that can facilitate learners' comprehension of the concepts, theories, and skills being taught more easily and effectively. Here are some examples:

1. Simulation and Visualization

Simulation and visualization techniques are increasingly utilized across various fields to enhance understanding and provide clearer representations of complex concepts. In education, these technologies are employed to visualize the normal distribution theory, facilitating comprehension for students. Simulations and interactive visualizations enable learners to observe and grasp abstract concepts more tangibly. This approach can aid in their retention and application of these concepts more effectively (Sungkono et al., 2023).

2. Gamification.

The implementation of gamification, which involves incorporating game elements into educational practices, can make learning experiences more engaging and interactive. This approach has the potential to enhance motivation and participation among learners throughout the educational process. Gamification in education refers to the integration of game elements to support teaching and learning activities in a broad context, and it can foster both teacher motivation and learner engagement (Dichev & D. Dicheva, 2017).

3. Virtual Reality (VR) and Augmented Reality (AR)

The application of Virtual Reality (VR) and Augmented Reality (AR) technologies in education is increasing, offering innovative methods to enhance the learning experience. VR and AR can immerse learners in realistic educational environments, which helps improve their understanding and retention of information (Punia et al., 2024).

Provides a Wide Selection of Engaging and Interactive Media. Technology allows educators to offer a wide range of engaging and interactive media options for students. Here are some examples:

1) Video and Animation

Video animation has emerged as an effective educational tool, enhancing student engagement and comprehension across various subjects. Research indicates that animated videos can significantly improve the understanding of complex concepts, especially in English language learning. The integration of video animation in higher education has been shown to boost students' enthusiasm for learning, particularly in courses that focus on educational media. The use of video and animation not only enhances the appeal of the material but also facilitates comprehension (Susilo & Widiya, 2021).

2) E-books and Interactive Books

Interactive e-books are an effective educational media solution for enhancing student engagement and improving learning outcomes. The development of interactive e-books using applications such as

Kotobee facilitates the integration of multimedia content and interactive quizzes. This e-book has been demonstrated to be valid, practical, and effective in training junior high school students' algebraic reasoning skills. At the elementary school level, interactive e-books have also proven effective in enhancing student learning outcomes. E-books and interactive books enable learners to participate in a more independent and interactive learning experience (Mira et al., 2022).

3) Education Software

According to Utami (2020), educational software plays a crucial role in enhancing learning effectiveness. Computer technology has positively impacted the education sector by facilitating innovation in the teaching and learning processes. Various software applications can be utilized to create engaging open resources, present materials efficiently, and store work in digital formats. Educational software can help learners pursue their studies more enjoyably and effectively.

c. Facilitating Independent Learning

Technology enables learners to engage in self-directed learning by providing access to various information sources and educational tools. Self-directed learning methods applied through modules and independent assignments are proven to improve cognitive, affective, and psychomotor outcomes in non-formal education settings (Putra, 2017). The following are some examples of independent learning, as follows:

1) Online Learning

Online learning refers to the utilization of the internet to access educational materials, engage with content, interact with instructors, and connect with fellow learners. Online learning aims to provide support during the learning process, facilitate knowledge acquisition, foster understanding, and promote growth through the learning experience. This model of education is characterized by the absence of face-to-face interaction, relying instead on platforms that facilitate teaching and learning, even at a distance. The main objective of online learning is to offer high-quality educational services in a large and open format, thus reaching a wider audience and expanding access to learning opportunities (Handarini and Wulandari, 2020).

2) Daring course

According to Sindi, (2021) Online learning refers to the utilization of the internet to access educational materials, engage with content, interact with instructors, and connect with fellow learners. Online learning aims to provide support during the learning process, facilitate knowledge acquisition, foster understanding, and encourage growth through learning experiences. This model of education is characterized by the absence of face-to-face interaction, relying instead on platforms that facilitate teaching and learning, even at a distance. The main objective of online learning is to offer

high-quality educational services in a large and open format, thus reaching a wider audience and expanding access to learning opportunities.

3) Learning Applications

According to Hariato et al. (2024), asserts that the effectiveness of technology-based learning applications in education is highly emphasized. These tools increase student engagement, support independent learning, and improve teachers' ability to make materials accessible. Educational applications can facilitate a more interactive and enjoyable learning experience for students.

4) Supports Learner-Centered Learning

The importance of learner-centered learning in modern education. Educational interaction is seen as the main foundation for learner-centered learning, which encourages active engagement and enhances learners' learning experience. Technology can support learner-centered education by enabling students to engage in learning that suits their individual learning styles and needs. Through personalization of learning, educators can tailor the learning experience by providing tasks and materials that match students' abilities. In addition, project-based learning facilitates a more active and meaningful approach to education, while digital portfolios allow students to monitor their learning progress effectively (Pratama et al., 2024).

d. Role of Tech-Assisted Learning Media

Educational media serve as a tool that can be utilized to illustrate certain facts, concepts, principles, or procedures so that they appear more real or concrete. These tools are designed to give learners a more concrete experience, motivate them, and improve their absorption and retention of information during the learning process. The use of educational media fosters a positive attitude among learners in the teaching and learning process. The learning experience becomes more interesting when the media used is appropriate and aligned with the learners' characteristics, to encourage learners to develop interest in the knowledge they acquire. Furthermore, the selection of educational media in accordance with the characteristics of learners is an important aspect that must be understood by educators to achieve educational goals. An educator can present learning materials effectively and efficiently by utilizing media skillfully and appropriately (Nursamsu, 2017).

Atsani (2020) recognizes that educational media is one of the crucial supporting factors in the teaching and learning process. This statement is in line with various research and perspectives in the field of education. There are several reasons why educational media is seen as an important component in the teaching and learning experience: Increase the attractiveness of learning, Clarify abstract concepts, Support various learning styles, Facilitate independent learning, Provide contextual and

concrete learning experiences, Improve memory and understanding of material, and Foster collaboration and interaction.

Previous research shows that the utilization of learning media can significantly increase student learning motivation, because the media provides an innovative and diverse presentation of material (Ristwawati, 2017). Furthermore, the results of research by Pratomo Aji Susilo (2014) show that learning media can also improve student learning outcomes. The advantages of media in the educational process include facilitating interaction between teachers and students, so that learning becomes more effective and efficient.

Thus, educational media is one of the alternatives that are widely used to increase student interest in learning (Arsyad, 2003). Furthermore, educational media are expected to foster Self-Motivated Learning and Self-Regulated Learning.

1) Self-Motivated Learning

According to Mujiman (2011), Self-Motivated Learning, also known as independent learning, refers to an active learning process driven by the intention or motivation to master specific competencies to overcome certain challenges. This approach is based on the knowledge or competence that the learner already has. It is strongly believed that human behaviour is stimulated and directed by certain needs, such as physiological needs, needs for security, love, respect, self-actualization, desire for knowledge and understanding, and aesthetic needs. These

needs serve as the driving force behind a person's actions. Thus, independent learning refers to the process of acquiring knowledge through one's own initiative, either with the help of others or independently. The term motivation comes from the Latin word "movere," which translates to drive or driving force (Maslow as cited in Djamarah, 2016).

Self-motivation refers to the internal drive that prompts a person to make efforts to achieve certain goals. Basically, self-motivation is a psychological condition that drives a person to engage in certain actions. Motivation can be understood as the drive of desire that encourages a person to participate in certain activities to achieve goals. Self-motivation is closely related to the source of motivation that directs behavior towards learning, so motivation is an important aspect in the educational process. The greater a person's motivation, the stronger the desire to learn (Firmadani, 2020).

2) Self-Regulated Learning

According to Zimmerman (2013), the social cognitive theory of Self-Regulated consisting of three cyclical phases known as the self-regulation cycle. There are three distinct phases. The first phase, referred to as thinking ahead, guides the learning process and the source of motivation that comes before the learning effort. This phase also influences the student's readiness and willingness to organize a self-regulated learning process. The second phase, known as the

performance phase, includes mechanisms associated with learning that affect concentration and performance. The third phase, called the self-reflection phase, is the final step that occurs after the learning process, yet it shapes the way students respond to the material they have learned. This phase entails reflection on the student-led learning activity. Self-regulated learning is a learning model that allows learners to effectively manage their educational process in various ways, resulting in optimal learning outcomes. Self-regulated learning is a concept that reflects how learners control their learning.

Zimmerman (2013), defines self-regulated learning as a process in which a learner systematically activates and improves his/her cognition, behavior, and affect, all oriented towards achieving educational goals. Students are considered to have implemented self-regulated learning when they have strategies that activate metacognition, motivation, and behavior in their learning process. The habit of self-regulating and self-directing is expected to develop during the learning experience.

3. Technology in English Language Learning Media

English language teaching involves complex skills that include listening, speaking, reading and writing. Thus, the utilization of technology in English language learning has been proven to have a significant positive impact. Rahmawati (2021) states that technology can facilitate language learning by providing access to various authentic resources, such as videos, articles, and interactive exercises that support language acquisition. This is very important,

considering that the diversity of learning resources can help students understand the context and use of language in real situations.

In Greek, the meaning of technology is *Technologia*. According to the Webster Dictionary comes from systematic treatment or handling something systematically, while *techne* as the root word of technology means skill, expertise, cleverness, knowledge. The word technology literally comes from *Texere* which means to compose or build. is a process, not a product (Zainiyati, 2017).

Technological advances have become an integral part of the educational environment. This aspect is particularly important for the teaching profession, as teachers can utilize it to facilitate the teaching and learning process. When discussing technology in the context of English language acquisition, the term "Integration" is often used. Given that technology is now a component of our daily lives, this prompts a reconsideration of how to effectively integrate technology into the curriculum with a view to embedding it into teaching practices to improve learning outcomes. In other words, technology is an essential element of the learning experience, which represents a significant consideration for educators, from the preparation of the learning experience to the execution of the teaching process (Ready and Lockyer, 2013). According to Pourhosein et al., (2017), previous researchers have argued that English language teaching methods have evolved in response to technology. The researchers argue that the application of technology helps students in learning English based on their individual interests.

According to Lawrence as cited in Gilakjani (2017), technology supports students in the self-directed learning process, allowing access to a wealth of information that may not be available through their instructors. Instructional Technology is a systematic effort in designing, implementing, and broadcasting the entire learning process for specific purposes, and is based on research on learning and communication processes in humans that use a combination of human resources with sophisticated technology so that the learning process can run well. Technology should be used to support the transformation of education. Technology is the application of information to reason, that is, technology is the application of knowledge for practical purposes. A more formal definition, where he says that technology is "The Systematic Application of Scientific or Other Organized Knowledge to Practical Tasks" (Galbraith as cited in Newby, 2000).

4. Types of Tech-Learning Media

Learning media play an important role in improving the effectiveness of the learning process. They help clarify abstract concepts, overcome spatial and temporal limitations, and stimulate student involvement. Proper media selection is essential to maximize learning outcomes, improve student understanding, and facilitate communication between educators and learners (Rahman, 2017). Tech-Assisted Learning media includes various types of tools and applications used to support the learning process through the use of Technology. According to Widyawati (2023), there are several types of technology-based educational media that are common in education.

a. Multimedia presentation

Multimedia presentations have emerged as an effective tool in education, providing solutions for students facing physical or intellectual challenges. These presentations can engage multiple senses, making learning more accessible and comprehensive. These presentations are slide-based presentations, such as those created with Microsoft PowerPoint, Keynote, or Prezi, that allow educators to convey information by combining multimedia elements, including text, images, video, and audio (Munir and Sukari, 2019).

b. Education Video

The use of educational videos can facilitate active learning, help students understand complex concepts, and simplify lesson preparation for educators. Short videos or tutorials accessible online, such as through YouTube or specialized learning platforms, that help explain concepts or learning processes in a visual and interactive way (Qiro et al., 2024).

c. Simulations and Educational Games

Simulations and educational games have emerged as effective tools to enhance the learning experience across a wide range of subjects. Research has explored their application in various fields. Such as applications and software that allow students to engage in simulations or educational games, thus improving their understanding of the subject matter (Fauzi et al., 2019).

d. Mobile app

Mobile apps have shown considerable potential in enhancing education across various disciplines. For example, in the context of English language learning, mobile apps aimed at vocabulary acquisition have proven effective in overcoming challenges related to accessibility and flexibility in distance education. Downloadable apps that can be accessed through mobile devices, such as smartphones or tablets, that provide learning resources, practice exercises and interactive educational materials (Lyraa et al., 2024).

e. Interactive whiteboard

Interactive whiteboards (IWB) have emerged as an innovative educational technology that enhances teaching and learning. Studies show that IWB supports various learning styles, increases student engagement, and improves learning outcomes. These digital boards allow teachers to write, draw, and display content interactively on a large screen, which enables students to actively participate in the learning process (Qader and Hamdani, 2019).

f. Podcast Education

Podcasts have been widely adopted in both formal and informal educational settings, increasing student engagement and accessibility to learning materials. As such, they are audio recordings that contain learning materials or discussions on specific topics, which students can access through online platforms or podcast applications (Hutahaeen and Juhana, 2024).

g. Blogs and Platforms

Blogs have become an important tool for disseminating knowledge and enriching learning experiences. They support the exchange of both implied and explicit information among users, benefiting both writers and readers. In an educational context, blogs serve as a platform for sharing information, allowing students to interact, access the latest materials and find additional sources of reference. Online platforms that facilitate the sharing of knowledge, ideas and learning experiences between teachers and students through blogs, discussion forums or electronic journals (Filayu and Fatmawati, 2019).

h. Language Learning App

This app aims to improve language education by providing an interactive and accessible learning experience. The application is designed to assist students in learning a foreign language through various features, such as vocabulary exercises, pronunciation exercises, and language usage in everyday situations (Harahap et al., 2019).

i. Social Media and Video Sharing Platforms

Social media and video sharing platforms have become an integral part of everyday life, especially among students. In the current context of education, it is possible that every student uses social media. Platforms such as Facebook, Twitter, Instagram and YouTube can be used as tools to share educational content and enhance collaboration in learning (A. et al., 2023).

Various types of technology-based learning media offer flexibility and

extensive opportunities for teachers and students to access a variety of learning resources, thus enhancing a more interesting, interactive, and effective learning process.

5. Benefits of Using Tech-Assisted Learning Media In English Language Teaching

Findings from the study showed that the use of technology in English language teaching has seen a significant increase. Mobile applications, e-learning platforms, and multimedia are now essential tools for teachers and students. This is in line with the results of previous research which indicated that technology can increase accessibility and stoppage in language learning (Rozimela, 2020).

The use of learning media is highly recommended for English teachers and students who are highly engaged and motivated by the utilization of modern technology. These include resources such as radio, television, computers, the Internet, electronic dictionaries, email, blogs, audio-visual aids, videos, and DVDs or VCDs (Nasser, 2017)

as follows:

- 1) The use of technology in English language teaching is perceived as interesting and motivating, as students respond positively to the subject matter.
- 2) Technology plays an important role in the English teaching process by enhancing timely comprehension, thus enabling students to learn more effectively.

- 3) Educators work more efficiently when utilizing modern technology, as it allows them to communicate with students through multiple channels.
- 4) The use of contemporary technology allows teachers and students to access a wide variety of books, publications, and references directly related to the English curriculum.
- 5) Modern technology fosters students' independence, preparing them better for future challenges.
- 6) Unlike traditional passive teaching methods, modern technological teaching and learning aids incentivize both teachers and students.

According to Hasrah (2019), the application of technology in the learning process provides a number of significant advantages. First, technology contributes to improving the quality and quality of teaching and learning activities. In addition, technology also expands access to learning and education, allowing more students to participate. Technology has a crucial role in illustrating and bringing abstract concepts to life through clearer visualization. Lastly, technology facilitates the understanding of the material being taught, allowing students to learn more efficiently.

6. The Advantages of Technology-Based Learning Media

According to Widyawati (2023), there are several advantages of Tech-Assisted Learning Media among others, tech-assisted learning media provides a number of significant benefits in the world of education. First, this media presents learning materials interactively and interestingly, integrating multimedia elements such as images, videos, animations, and sound, which

can enhance the learning experience and encourage active student involvement. In addition, with internet access, this media can be accessed anytime and anywhere, giving hope for students to learn according to their needs and schedules. Tech-assisted learning media also supports independent learning, allowing students to access learning resources and proceed at their own pace and level of understanding. Technologies such as virtual reality (VR) and augmented reality (AR) offer more immersive and realistic learning experiences, such as exploring historical sites or natural environments. In addition, they enable the integration of different types of media on a single platform, allowing educators to combine text, images, audio, video and animation to convey information in a holistic manner. Students' learning experience is also enriched by access to additional resources, such as educational websites, e-books and scientific databases. Tech-assisted learning media facilitate collaboration and communication between students and teachers through discussion forums, brave study groups, or other communication tools. Finally, technology allows teachers to more effectively control student progress and evaluate their learning using supporting applications and tools.

7. The Weaknesses of Using Technology in English Language Teaching

The use of tech-assisted learning media in English language teaching contributes significantly to increasing students' motivation and engagement. The integration of technology in the English learning process also plays a role in increasing students' enthusiasm and participation. By utilizing technology,

students have the opportunity to adjust learning to their own pace and learning style. In addition, technology supports continuous learning outside the classroom environment, thus expanding the time and space for learning (Sapari at al., 2023).

Mofareh (2019), developed some shortcomings in the application of technology in English language teaching. First, many teachers and students have limited access to modern technology, which can hinder the effectiveness of the learning process. In addition, students' dependence on technology can result in neglecting the role of the teacher, thus reducing the direct interaction and guidance that should be provided by educators. Finally, excessive use of technology can reduce students' social activities, as they tend to spend most of their free time in front of a screen, which can interfere with crucial social relationships and interpersonal skills.

8. The Reasons for Using Technology in English Language Teaching

There are several reasons to use technology in English language learning. First, technology provides easier access to various online learning resources, such as online courses, websites, apps and learning videos. This helps students improve their understanding of English with a variety of learning materials. Secondly, technology enables more interactive lessons through advanced educational apps and software. Students can practice speaking, listening, reading and writing in English in a more interesting and effective way. In addition, distance classes have become easier with the help of technology, allowing students to learn English without having to be in the same physical

place as the teacher or instructor. Furthermore, technology also provides automatic correction capabilities of grammar and pronunciation, helping students correct their mistakes quickly (Alwiyah and Sayyida 2020).

Jacqui Murray (2015), categorizes some of the reasons for using technology in English language teaching as follows:

1. Technology allows students to demonstrate independence.
2. Technology differentiates student needs.
3. Technology enhances learning by utilizing resources that interest students.
4. Students actively want to utilize technology.
5. Technology gives students an equal voice.
6. Technology allows students to build a strong understanding of content wherever they find it.

9. The Role and Challenges of English Teachers in Utilizing Tech-assisted Learning Media as A Contemporary Learning Tool in Education

a. The Role of English Teachers In Utilizing Tech-assisted Learning Media

The role of professional teachers in the field of English is very important in utilizing technology-based learning media. English teachers are tasked with creating an innovative and relevant learning environment that improves the quality of education and student learning outcomes (Hadijah et al., 2019). The following are some important roles of professional English teachers in utilizing Tech-Assisted Learning Media:

1. Integrating technology into the curriculum

The integration of technology in English language education is

increasingly crucial, providing new opportunities for innovative teaching methods and increasing student engagement. Previous research has shown that tech-assisted learning not only increases student participation, but also enriches the learning experience by providing access to interactive resources. With this in mind, professional English teachers must be able to strategically incorporate technology into the curriculum. They can utilize tech-assisted learning media as a tool to present subject matter in a way that is interesting and relevant to students (Sholihin, 2024).

2. Creating interactive learning experiences

Studies have shown that interactive learning media are well received by students, with high ratings across various aspects of user experience such as novelty, efficiency and attractiveness. By utilizing technology-based learning media, English teachers can develop a more engaging and fun learning experience for students in the classroom. The incorporation of images, videos, animations, and simulations can facilitate the explanation of complex concepts, making them easier to understand during the lesson (Prasetyaningsih and Ramadhani, 2021).

3. Facilitating self-directed learning

The implementation of self-directed learning methods can improve student motivation, learning experience and overall academic performance. With this, Technology enables students to engage in self-directed learning by providing access to various online learning

resources. Educators can act as facilitators, guiding students on their independent learning journey and developing lifelong learning skills (Putra, 2017).

4. Provide timely and constructive feedback and evaluation

Feedback is an important element in the learning process that can improve students' motivation and quality of learning. English teachers can utilize technology to provide quick and valuable feedback to students. The use of tech-assisted assessment tools can assist educators in monitoring student progress and identifying areas that require improvement (Zai et al., 2024).

5. Developing students' digital skills

A recent study stresses the significance of developing digital skills among students in preparation for the challenges of the 21st century. Digital skills are crucial in shaping the nation's character and preventing technological protection. English teachers play an important role in teaching digital skills to students, including digital literacy, the ability to search for information effectively, and online safety. This will greatly help students become better prepared to face the challenges of an increasingly digitally connected world (Agrini and Agustin, 2022).

6. Searching for relevant learning resources

The importance of utilizing relevant learning resources in education shows that collaborative mentoring increases the use of

learning resources by teachers in creating teaching materials. Educators must be active in finding technology-based learning resources that are relevant to the topic being taught. This can include videos, articles, educational websites and apps that can help enhance the learning experience (Sofya et al., 2023).

7. Addressing the digital divide

The digital divide persists due to inadequate infrastructure and insufficient teacher training. To address this issue, educational institutions should invest in technological infrastructure and professional development. With this in mind, English teachers should be aware of the digital divide among their students. They should explore innovative methods to help students who may have limited access to technology, ensuring that they can still engage in technology-enhanced learning (Wahyuni et al., 2024).

8. Being a role model in the utilization of technology

Teachers play an important role as role models in the effective utilization of technology for educational purposes. They should be technology-aware to improve the quality of learning and prepare students for the digital age. Teachers should be role models for students in the judicious utilization of technology. This includes using technology for learning, collaboration, and communication with fellow teachers, students, and parents (Sipahutar & Zega, 2023).

9. Innovate in teaching methods

Innovation in teaching methods is essential to improve student engagement and learning outcomes. Teachers are encouraged to adopt creative approaches to make lessons more dynamic and fun. By utilizing technology, teachers can improve their teaching approaches. They can explore new ways to present material, encourage active student participation, and create an inspiring learning environment (Mulyati et al., 2023).

b. Challenges for English Teachers in Utilizing Technology-Assisted Learning Media

English teachers' challenges in utilizing tech-assisted learning media can cover various aspects. Some of these challenges include:

1. Limitations of Infrastructure and Technology Access

Not all schools or regions have adequate technology infrastructure. The availability of hardware, stable internet connection, and accessibility to technological devices can pose significant challenges for educators in optimally integrating technology-based learning media (Sucipto, 2024).

2. Readiness and Technological Competence

Technology Readiness and Competence: Teachers play an important role in effectively implementing technology in the classroom, with internal factors such as self-efficacy and competence significantly influencing their practice. Some educators may feel underprepared or lack knowledge in utilizing tech-assisted learning media. Adequate and continuous training is

essential to improve teachers' technological competence, so that they can effectively incorporate these tools into their teaching practices (Indriani and Wirza, 2020).

3. Insufficient Relevant Content

The implementation of technology-based learning in Indonesia faces several challenges, including gaps in technology access and infrastructure, and limited stable internet connectivity. The selection of appropriate learning media and content relevant to English subjects may be a challenge. Teachers need to identify and search for digital resources that fit their curriculum and can enrich English learning (Sucipto, 2024).

4. Time Management and Resource Preparation

Time management and resource preparation in English language learning are important aspects to improve learning effectiveness. Integrating technology into the educational process may require additional time for preparation, which includes searching for online resources, modifying existing materials, or developing customized content. Effective time management is essential for teachers to make the most of technology while ensuring that other aspects of the learning experience are not neglected (Simatupang et al., 2022).

5. Social Interaction and Connectivity with Students

Social interaction plays an important role in students' educational experience. Group counseling with modeling techniques was shown to be effective in improving students' social interactions and increasing

cooperation, tolerance, and self-confidence. The integration of technology in education can have a significant impact on social interaction in the classroom. Educators must ensure that technology serves as a tool to increase student interaction and participation, instead of isolating them (Zuhara, 2020).

6. Evaluation and Measurement of Student Progress

Learning evaluation is an important component to assess the effectiveness of the teaching and learning process. Assessing student progress and achievement in tech-assisted learning presents significant challenges (Zainal, 2020).

To overcome these challenges, it is crucial for English educators to continuously improve their technology skills, seek support through training and professional development opportunities, and collaborate with fellow teachers to share experiences and resources. Furthermore, support from schools and the government in providing adequate technology infrastructure is crucial to successfully implementing tech-assisted learning media.

10. Tech-Assisted Learning Media Analysis

Various types of media have unique capabilities and characteristics that can be used for specific purposes. The characteristics of educational media distinguish it from other types of media (Wati, 2016). This states that several technology-based educational media should be recognized in the learning process. The types of educational media include the following.

a. Computer

Computers are devices equipped with various applications that can be used by teachers and students in the learning process. Computers in education have shown significant potential to improve the quality of learning and student engagement. The use of computer-based learning media involves activities that use software or other related tools to facilitate interaction in education, both in the classroom and at home (Miftah, 2014).

Computers have shown significant potential in improving English education in Indonesia. By utilizing computers, interactive learning materials such as quizzes, games, and simulations can be created, allowing students to learn English more easily. In addition, computers also allow access to various online resources, including articles, videos and podcasts, which can support students in learning English more effectively. In addition, learning software such as Quizlet, and Kahoot can be used to create a more interactive learning experience for students. Overall, this emphasizes a potential computer-based approach in English education, which provides a more engaging and efficient learning experience. However, it is important to remember that computers serve as aids in language learning, which complement traditional teaching methods (Amin, 2020).

b. Microsoft PowerPoint

Microsoft PowerPoint is a software application specifically designed to create graphical presentations efficiently and easily. Presentations created with Microsoft PowerPoint serve as a means to introduce or explain topics,

summarizing content into visually appealing slides. Microsoft PowerPoint has emerged as an effective multimedia learning tool in education. It offers an attractive, easy-to-use, and cost-effective platform for creating interactive presentations. This approach aims to enhance understanding through effective visualization of text, images, graphics, audio, video, and other elements within the slides (Oktaria, 2015).

According to Yusuf and Rangkuti (2021) demonstrated that using Microsoft PowerPoint can significantly enhance English learning outcomes and student engagement. Several studies have shown improvements in test scores and completion rates when PowerPoint is applied to teaching English grammar and vocabulary. Additionally, incorporating interactive elements, such as educational games within PowerPoint, has been proven effective in boosting student performance and morale. Furthermore, Microsoft PowerPoint can be utilized to develop students' listening skills by incorporating relevant audio and video materials. Therefore, PowerPoint can also be designed to create quizzes effectively. and exercises that support students in practicing their language skills.

c. Projector

In his book "Learning Media", it is explained that projectors play an important role in increasing the visibility of information, making it easier for students to observe and understand the material presented. Projectors can be used in various presentation formats, including slides, videos, and static images (Sulastri et al., 2021). Recent studies emphasize the

effectiveness of innovative teaching methods and technologies in English language learning. The use of projectors has been shown to increase student engagement and understanding at the junior high school level, although challenges such as limited access and technical training needs remain. Projectors enable faster and easier presentation of learning materials, supporting teachers in designing more effective and efficient materials. In addition, projectors can show videos and movies relevant to the material, helping students hone their language skills. Thus, teachers can conduct evaluations more effectively and efficiently through the utilization of projectors (Gumilar et al., 2024).

d. Internet

The Internet has emerged as a valuable tool for English language learning, offering many benefits and opportunities. It provides students with authentic communication practices and abundant learning resources. The Internet serves as an important communication medium that is widely used for various purposes. In the context of education, this medium proves to be very beneficial in engaging students with the learning materials presented by their instructors. In addition, the internet also helps broaden students' horizons and knowledge. In addition to its role as an educational tool, the Internet is also widely used by various institutions, entrepreneurs, and experts for various purposes (Sunardi, 2011).

e. Multimedia

Robin and Linda (2001), assert that multimedia serves as a tool capable of creating dynamic and interactive presentations that integrate text, graphics, animation, audio, and video. This definition emphasizes the important aspect of interactivity in multimedia. Multimedia is a combination of various types of media, which are used for educational and other purposes. Based on the above viewpoints, it can be concluded that media includes everything that can be used to convey messages. In the context of education, media is referred to as instructional media, which acts as an intermediary between the message source (teacher) and the message receiver (student), including content or subject matter related to a particular topic.

11. The Various Applications for Making Tech-Assisted Learning Media

Learning media can be divided into two types, namely non-technological learning media that are made manually without utilizing existing technology, and technological learning media that are developed by utilizing various applications in their manufacture, as described below:

a. KineMaster app

Kine Master is a complete video editing application that comes with various features. This application can certainly be used by teachers to create multimedia learning materials in the form of audiovisual content. The app has demonstrated its strong suitability, practicality and effectiveness for use in English language teaching. Teachers have reported an increased ability to create engaging and creative instructional videos following their training

in the use of KineMaster. The app is compatible with mobile devices and personal computers (Yonantha et al., 2022).

b. Capcut app

The Cap Cut app serves as a multifunctional video editing platform, offering a wide range of features including video trimming, sticker addition, text layering, voice recording integration, and various other capabilities. The app is compatible with both mobile devices and PCs and can be downloaded from the Play Store and App Store. Utilizing Cap Cut for the production of audiovisual educational materials is very effective, as this single application facilitates the creation of engaging educational content that can be customized to reflect students' creativity in developing their teaching resources (Syahmewah, 2023).

c. Kahoot app

Kahoot is an application designed to create quizzes in an educational game format that can be used in the learning process. As an interactive online platform, Kahoot has become a popular choice as an effective medium for English language learning. Various studies have shown that Kahoot can increase students' motivation, engagement, and interest in learning English. The app helps with language skill development by providing quizzes and games related to vocabulary, grammar, and other aspects. Kahoot also allows for more effective evaluation through features such as timers and scores. In addition, Kahoot can improve cooperation skills by presenting games that require team collaboration. This is due to

Kahoot's ability to support children's learning styles in the digital era, as it is designed as an engaging educational game (Hartanti et al., 2019).

d. Quizziz app

Quizziz app has similarities with Kahoot, functioning as an interactive quiz platform that integrates various themes and interesting features. Quizziz is utilized as a tool for English language learning in the educational environment in Indonesia. Students can design relevant questions and answers through this app. In addition, the app implements a ranking system during quizzes, where more accurate answers will result in higher scores and rankings, thus encouraging a spirit of competition and increasing students' motivation to learn. The advantage of using this app is that it can make the learning process more fun and interesting with features such as games, quizzes, and more. In addition, this application also helps in developing language skills by creating quizzes and games related to vocabulary, grammar, and other aspects (Sari et al., 2023).

e. Duolingo

This study investigates the utilization of Duolingo, a language learning app, in improving English language skills among secondary school students in Indonesia. The results show that Duolingo has a positive impact on students' English achievement at the junior high school level. The app offers more interactive and fun learning methods, such as games and exercises. In addition, Duolingo can be accessed for free and used anytime and anywhere, thus reducing the time and cost usually required to go to school. This allows

students to practice speaking, listening, reading, and writing in English more, which in turn improves their language skills. The findings indicate that Duolingo can be a very useful tool to improve various aspects of English language learning in secondary education in Indonesia. (Pradana et al., 2024).

f. Educandy App

The Educandy app is a tool used by educators to create educational games designed for online learning. Research has shown the potential of this tool as an effective educational resource for language learning. Studies have shown its positive impact on student motivation, engagement, and learning outcomes in English language education (Rohmah, 2021).

g. E-book

E-books have become a very effective tool in English language learning, especially in improving students' listening skills and performance. This is due to the transformation brought by electronic books in the process of book creation and distribution. E-books can be accessed anytime and anywhere, making it easy for students to learn English flexibly. Many e-books are equipped with interactive features such as audio, video, and exercises, which can assist students in practicing their language skills. E-books can be used on various devices, including smartphones, tablets, and laptops, making it easier for students to learn English. E-books also encourage active learning, and increase motivation, and promote technological literacy (Sulastri et al., 2021).

h. Canva

Canva has been proven to increase creativity, engagement, and digital literacy skills among students through the creation of interactive and visually appealing learning materials, such as posters, brochures, and presentations. The implementation of Canva in an English class received positive responses from students and effectively supported the learning process. Thus, Canva can be utilized to produce visual learning materials such as infographics, posters, and presentations that help students understand English concepts better. In addition, Canva can also be used to create worksheets and exercises that support students in practicing their language skills. Most importantly, Canva allows the creation of flashcards that assist students in learning English vocabulary. Overall, Canva shows its potential as a valuable tool for creating engaging, effective, and interactive English learning experiences in both online and offline contexts (Revola & Sari et al., 2024).

i. Zoom

According to Yonantha et al. (2021), Zoom has become a very useful tool for English language learning among junior high school students. It supports effective interactions between teachers and students, enables real-time communication, and supports various learning activities. Research shows that using Zoom can increase student motivation and engagement in English classes, with many students reporting satisfaction with the platform. Zoom can also be

utilized to host online classes where teachers and students can study English grammar. In addition, the platform allows students to make presentations on the topics being studied, making the learning process more interactive and fun. Zoom also provides direct evaluation between teachers and students, which makes the assessment process more effective and efficient. The implementation of learning through Zoom has shown a significant improvement in English learning outcomes. However, there are challenges such as slow internet connection and additional costs for data usage that need to be considered (Mu'awanah et al., 2021).

j. Google Meet

Google Meet has become an effective tool for online learning in recent years, especially in language education. Research shows that the platform supports direct interaction between students and teachers, allowing for discussions and the sharing of materials such as PowerPoint presentations. In English lessons, using Google Meet has been shown to significantly improve students' speaking skills. The tool offers the flexibility to learn from anywhere and at any time, reducing the amount of time and money usually spent on traveling to school. Google Meet also provides opportunities to practice speaking and listening in English, which helps improve language skills. With its high accessibility, free cost, and the requirement for a stable internet connection, Google Meet is a top choice for online learning. Despite some network limitations,

most students find Google Meet to be an effective learning tool, often used together with other tools like Google Classroom and WhatsApp (Dami & Yosita, 2022).

B. Related Previous Study

Various previous studies have shown that tech-assisted learning media have a significant influence on the effectiveness of the English learning process. The first research study conducted by Zulfa (2023), which focused on “Tech-Assisted Learning Media Used in Students' English Academic Writing,” found that the use of technology-based learning media can develop academic writing in English learning. This study focused on three main objectives: (1) exploring the technological tools used by students in English academic writing, (2) discovering students' perceptions of the use of technology-assisted learning media in English academic writing, and (3) identifying in parts of the writing process technology-assisted learning media can help students in English academic writing.

In addition, the second study by Iskandar (2019), focusing on “Utilizing Information Tech-Assisted Learning Media In Increasing Learning Interest Of Class VII.2 Students At Mts Negeri Pinrang”(Memanfaatkan Media Pembelajaran Berbasis Teknologi Informasi Dalam Meningkatkan Minat Belajar Peserta Didik Kelas VII.2 Di Mts Negeri Pinrang) emphasizes the importance of technology accessibility in education, which allows class VIII.2 students to access quality learning materials and build student interest with fun learning and more practical learning. However, challenges in implementation,

such as lack of training for teachers and limited infrastructure, remain 56
obstacles that need to be overcome by an educator. Therefore, this study aims
to utilize information technology-based learning media in increasing
students' interest in learning.

Furthermore, there is research by Rahayu (2023) examining “Tech-Assisted Learning Media” (Media Pembelajaran Berbasis Teknologi), explaining that learning media is very important and now is a sophisticated age, and of course, we cannot be out of date, therefore, educators should function learning media properly. The purpose of this study is to increase understanding by identifying and explaining how technology-based learning media can assist teachers in delivering open material and facilitating student understanding. And optimize the learning process through analyzing the role of learning media by creating effective interactions between educators and students.