

CHAPTER II

LITERATURE REVIEW

This chapter consists the explanation the preview of previous research and the theories related to the current research and seven previous studies similar to the current research. To enhance understand the background and related theories, the researcher reviewed the preview of previous research and several theories related to this research topic: digital learning, web-based learning media, grammar instruction, and review of the previous studies.

A. Preview of Previous Research

In this section, the researcher reviewed seven previous studies that were relevant to the present research. These studies provided valuable insights into the development and implementation of technology-based learning media in educational settings. A detailed description of each previous study is presented below.

The first study was entitled “Design of Web-Based Interactive English Learning Media Information System” by Setiawan et al. (2022). The study focuses on the design of an interactive web-based English learning system aimed at improving language skills through the use of the Kanban method for project management and Unified Modeling Language (UML) for system design. The study seeks to provide accessible online learning resources for English learners and address challenges in language acquisition. Similar to the present research, the study emphasizes the use of digital technology to support language learning and improve educational outcomes. However, while the previous study focuses on interactive English learning for a broader audience,

the present research specifically develops a web-based learning medium to improve grammar comprehension among senior high school students. Furthermore, the two studies differ in their target users and development approaches.

The second study was entitled “Designing Web-Based English Learning Media for Madrasah Ibtidaiyah Students” by Fitrianto et al. (2023). The study focuses on the development of an interactive web-based learning application for students at MI Al-Amin Dempelan using the Rapid Application Development (RAD) method. The application aims to improve students’ understanding of English grammar and vocabulary through interactive learning activities. Both the previous study and the present research focus on developing web-based learning media to enhance English language learning and student engagement. However, the studies differ in terms of target learners and learning objectives. The previous study targets elementary school students and focuses on vocabulary and speaking skills, whereas the present research targets senior high school students and concentrates on improving grammar comprehension through a learning platform.

B. Review of Related Theories

This part of the research explains the detailed information of the theories related to the research topic, such as translation, digital learning, web-based learning media, and grammar instruction

a. Translation

In educational contexts, translation serves as a pedagogical tool that bridges linguistic gaps, enabling learners to access and master content

that would otherwise be difficult to comprehend in a foreign language (Febriyanti, 2022). Specifically, in this research, translation refers to the process of rendering English grammar instructional materials into Indonesian within a web-based digital learning platform. This translational approach ensures that the grammatical rules and explanations are accurately conveyed to students, facilitating a deeper understanding of linguistic structures.

The objective of this research is to develop a web-based learning platform for senior high school students that utilizes translation as a core feature to support English grammar learning. By providing content in both Indonesian and English, the platform employs a translanguaging strategy where translation acts as a scaffold for students with varying levels of language proficiency. This approach allows students to compare the linguistic systems of their native language (Indonesian) and the target language (English), which is essential for developing grammatical accuracy and communicative competence in an interactive and flexible learning environment.

b. Digital Learning

Digital learning refers to the use of digital technologies and tools to deliver, support, and enhance educational content and learning experiences. The term “e-learning” was first introduced by Jay Cross in 1999 (Yoon et al., 2012). As technology has continued to advance, various terms have emerged to describe technology-mediated learning, including

Internet-based training, web-based training, online learning, network learning, and distance learning.

According to Kaklamanou et al. (2012), digital learning involves the application of computers and network technologies in educational settings, including both synchronous and asynchronous learning environments. These technologies help overcome traditional limitations related to time, location, and scheduling, thereby facilitating learner-centered and individualized learning experiences. Digital learning utilizes a variety of resources and tools, such as interactive exercises, educational applications, videos, simulations, and online learning platforms. These resources are designed to enhance students' learning experiences both inside and outside traditional classroom environments.

In conclusion, digital learning has developed significantly alongside technological advancements, providing diverse approaches to teaching and learning through digital platforms and resources. By utilizing computers, network technologies, and interactive media, digital learning supports flexible, accessible, and learner-centered education. Various digital tools, including educational applications, videos, simulations, and web-based platforms, contribute to improving students' engagement and learning outcomes. In the context of the present research, digital learning is implemented through the development of a web-based learning platform designed to improve senior high school students' grammar comprehension.

c. Web-Based Learning Media

The web is a system that enables users to access, modify, and download hyperlinked documents through computers and other internet-connected devices. Hyperlinks create connections among various elements, such as text, symbols, images, audio, and video, allowing web-based learning environments to provide interactive and multimedia-rich educational experiences (KBBI, 2021).

The use of web-based technology in education is supported by the increasing number of internet users in Indonesia. According to data from the Directorate General of Informatics Applications, the number of internet users in Indonesia increased by 11 percent from the previous year, rising from 175.4 million to 202.6 million users in 2021 (Dirjen Aptika, 2021). This growth demonstrates the widespread accessibility of internet services and supports the integration of web-based media into educational activities.

Learning media refer to resources, tools, and activities that facilitate teaching and learning processes both inside and outside the classroom. Web-based learning media enable students to access learning materials independently without requiring continuous teacher supervision. Through these platforms, students can learn at their own pace using materials that have been prepared and organized according to their learning needs and levels of readiness. Consequently, web-based learning supports self-directed, flexible, and individualized learning experiences.

In the context of the present research, a web-based grammar learning platform incorporating gamification elements was developed to create a more engaging and enjoyable learning environment for students. By integrating learning materials, interactive exercises, quizzes, and gamified features, the platform aims to increase students' motivation and participation in grammar learning activities.

In conclusion, the increasing availability of internet access in Indonesia supports the effective implementation of web-based learning media in educational settings. Web-based platforms offer interactive, flexible, and learner-centered learning experiences through the integration of multimedia resources and online accessibility. The incorporation of gamification into web-based grammar learning further enhances student engagement and motivation, making the learning process more effective and enjoyable while supporting the development of grammar comprehension skills.

d. Grammar

Grammar is a fundamental component of language learning. However, traditional grammar instruction often relies on rote memorization and repetitive exercises, which may reduce students' motivation and limit their overall language proficiency. Grammar consists of the structural rules that govern the formation and arrangement of words, phrases, and sentences in a language. This view is supported by Babu (2020), who states that grammar is a set of structural rules that influences

sentence construction and plays a crucial role in learning and using a language effectively.

Furthermore, Sun (2017) argues that grammar is an indispensable component of language learning because it supports the development of listening, speaking, reading, and writing skills. Without a solid understanding of grammar, language cannot be mastered systematically, and effective communication cannot be achieved. Therefore, grammar serves as the foundation for developing overall language competence and cannot be separated from other aspects of language learning.

In relation to the present research, the importance of grammar learning highlights the need for innovative instructional approaches that can increase students' motivation and engagement. Consequently, this research focuses on the development of a gamified web-based learning platform designed to support grammar learning through interactive and enjoyable learning activities.

In conclusion, grammar plays a vital role in language learning by providing the structural foundation necessary for effective communication and the development of language skills. Although traditional grammar instruction may sometimes reduce student motivation due to its repetitive nature, the integration of technology and gamification offers an alternative approach to make grammar learning more engaging and meaningful. Therefore, the development of a gamified web-based learning platform is expected to enhance students' motivation, engagement, and grammar comprehension while supporting their overall language development.