

## **CHAPTER II**

### **LITERATURE REVIEW**

This chapter presents theories related to the research problems and reviews previous studies relevant to this study. This chapter concludes with the definition of digital assessment, Teachy as types of digital assessment, the meaning of discussion text, the definition of grammar, the definition of grammar mastery, previous study, and conceptual framework.

#### **2.1 Digital Assessment**

Before delving into its application for grammar assessment, it is necessary to establish a clear understanding of what digital assessment entails. Therefore, the following subsection provides a definition of digital assessment as a conceptual foundation for the subsequent discussion.

##### **2.1.1 Definition of Digital Assessment**

According to Grosbeck et al. (2024), digital assessment encompasses all evaluation activities facilitated by digital technologies. It involves using technology to design, implement, and analyze assessments, such as online quizzes, e-portfolios, and virtual simulations, to measure performance and provide feedback. This approach enables real-time, detailed feedback, supporting a more dynamic, personalized, and efficient evaluation process. By leveraging automation and secure data handling, digital assessment ensures accessibility, fairness, and adaptability across diverse educational contexts. However, digital assessment also presents

challenges for both teachers and students, including technical issues, digital literacy gaps, and the need for ongoing training and support.

Furthermore, Appiah & van Tonder (2018) stated that digital assessment is the process of creating, delivering, storing, and/or reporting students' assessment marks and comments utilizing any technical device. Several digital technologies are used to accomplish the educational purpose. The integration of these digital technologies serves the broader educational purpose by enhancing the quality of assessments, promoting flexibility, and accommodating diverse learning needs and environments despite its many challenges and difficulties.

In summary, digital assessment leverages technology to design, deliver, and analyze evaluations, offering significant benefits such as real-time feedback, personalized learning experiences, and enhanced accessibility and flexibility in education. While it improves the quality and efficiency of assessment practices, it also presents challenges for both teachers and students, including technical issues, varying levels of digital literacy, and the need for ongoing support and adaptation. The effective use of digital assessment involves a structured process comprising the planning, implementation, and evaluation stages, each of which plays a crucial role in ensuring meaningful and reliable assessment outcomes.

### **2.1.2 Preparation of Digital Assessment**

Assessment instruments play a crucial role in the evaluation process, as they directly influence how student learning is measured and interpreted. According to Alvina et al. (2022), teachers need to possess the skills necessary to design effective and reliable assessment tools. As instructional leaders, teachers must ensure that the instruments they create align with learning objectives, accurately reflect student performance, and support fair and meaningful evaluation.

According to Conrad & Openo (2018), online assessment encompasses a wide variety of formats, from traditional methods such as single-answer and multiple-choice quizzes, written exams, essays, and oral presentations to more authentic forms of evaluation. These authentic assessments may include project-based tasks, interactive games, simulations, and the use of e-portfolios, all of which provide deeper insights into students' learning progress and competencies.

In summary, careful planning is at the heart of practical digital assessment, beginning with the development of appropriate and reliable assessment instruments. Teachers must not only design tools that align with learning objectives but also select from a wide range of digital and online assessment formats to suit the diverse learning needs of their students. Educators can create a comprehensive evaluation strategy by intentionally incorporating both traditional and authentic digital assessment methods—such as quizzes, essays, simulations, and e-portfolios. This thoughtful planning process ensures that assessments accurately measure student performance, promote engagement, and provide meaningful feedback, ultimately enhancing the quality of teaching and learning in a digital environment.

### **2.1.3 Implementation of Digital Assessment**

According to Grosseck et al. (2024), Digital assessment refers to the process of conducting evaluation activities using digital technologies. It encompasses the design, implementation, and delivery of performance-based tasks, as well as the provision of feedback, all of which are facilitated by technological tools and platforms. This method enables a more streamlined evaluation process and offers interactive methods for measuring student learning outcomes.

Furthermore, Heil & Ifenthaler (2023) stated that Online assessment is a form of evaluation in which tasks are administered and completed entirely through

digital platforms without the teacher and student being in the exact physical location during the assessment process. This mode of assessment enables flexible, remote evaluation but also introduces a reliance on technological infrastructure. Its success largely depends on the availability and stability of internet access, the functionality of digital tools, and, importantly, the digital skills of educators and learners.

In summary, technology plays a central role in facilitating the implementation of digital and online assessments. Digital assessment involves not only the design of tasks but also their delivery and the provision of feedback through technological platforms, making the process more efficient and interactive. Online assessment, a specific type of digital evaluation, enables the remote execution of tasks, necessitating careful planning to address technical needs and ensure accessibility. Successful implementation depends on reliable digital infrastructure and the digital competencies of both teachers and students, highlighting the importance of preparedness and support throughout the assessment process.

#### **2.1.4 Evaluation of Digital Assessment**

According to Appiah & van Tonder (2018), the evaluation process in digital assessment is characterized by features such as instant feedback and automated score management, which are typically integrated into the assessment system. These functionalities offer significant advantages over traditional assessment methods, where feedback is often delayed, and scoring must be done manually. The immediacy of digital feedback enables students to quickly identify their strengths and areas for improvement. At the same time, automated scoring increases efficiency, minimizes human error, and allows teachers to focus more on instructional planning and individualized support.

Incorporating Information and Communication Technology (ICT) into assessment practices can also offer other advantages over traditional paper-based methods. Iqbal et al. (2018) emphasize that the use of ICT in learning evaluation not only enhances convenience and efficiency but also allows for the development of more diverse and adaptive assessment tools. Digital platforms can address the limitations of printed evaluations by providing dynamic content, automatic scoring, and data tracking features that streamline the evaluation process.

Moreover, Grosbeck et al. (2024) noted that technologies such as online quizzes, checklists, collaborative documents with track changes, and even audio-visual feedback enable teachers to provide timely, personalized responses to student work. This immediate feedback supports continuous learning and helps students identify areas for improvement more effectively.

In summary, integrating digital technology into the assessment process offers numerous advantages that significantly improve teaching and learning outcomes. From automated scoring and real-time feedback to the flexibility and diversity of digital assessment tools, these innovations address many of the limitations found in traditional methods. By leveraging ICT and digital platforms, teachers can enhance the accuracy, efficiency, and responsiveness of their evaluations. At the same time, students benefit from more timely, engaging, and informative feedback that supports their academic growth.

#### **2.1.5 Challenges of Digital Assessment**

According to Rasmitadila et al. (2020), one of the primary challenges in implementing digital assessment is the issue of internet connectivity. In many educational settings, particularly in rural or underdeveloped areas, students face unstable or limited access to Internet services, which can hinder their participation

in online evaluations. Poor signal quality can lead to disruptions during assessments, delayed task submissions, or even failure to complete assessments altogether.

Another notable challenge is academic dishonesty, as emphasized by Brink & Lautenbach (2011). The shift to online assessment environments has raised concerns about the increased risk of cheating and plagiarism, particularly when students complete tasks in unsupervised settings. The lack of direct monitoring makes it easier for students to collaborate inappropriately or access unauthorized resources during assessments. Online assessments often suffer from credibility issues due to the difficulty in verifying the authenticity of student work, leading institutions to seek alternative strategies such as proctoring software or redesigning assessments to minimize opportunities for cheating.

Moreover, Adedoyin & Soykan (2023) added that a further issue commonly encountered in digital assessments is students' failure to complete tasks within the allocated time. Time management can be more challenging in online settings, particularly when students are unfamiliar with the platform or face distractions in their home environments. Furthermore, technical issues or lack of confidence in navigating digital tools can cause delays. Many students reported difficulties in completing online assessments on time due to confusion about instructions, slow system responses, and anxiety triggered by unfamiliar digital interfaces.

In summary, the implementation of digital assessment presents several significant challenges that can hinder its effectiveness. One major issue is poor internet connectivity, particularly in rural or underdeveloped areas, which can disrupt students' ability to participate in and complete online evaluations. In

addition, concerns over academic dishonesty have increased, as the lack of direct supervision in online settings makes it easier for students to cheat or plagiarize. Another common challenge is students' inability to complete assessments within the allocated time. Factors such as limited digital literacy, unclear instructions, technical issues, and distractions in the home environment can negatively impact students' time management and performance.

## **2.2 Teachy Application**

Teachy is an innovative educational platform designed to enhance teaching and learning experiences by integrating artificial intelligence (AI). It offers a comprehensive set of tools for lesson planning, content delivery, student engagement, and assessment. The application enables teachers to create and share instructional materials and exercises digitally while allowing students to access the content, complete tasks, and receive instant feedback.

According to Royyana et al. (2025), Teachy is specifically designed to measure and evaluate the extent to which learners comprehend the material being taught. As a digital assessment platform, it provides educators with tools to assess students' understanding effectively, ensuring that the evaluation process aligns with the intended learning outcomes. One of Teachy's key features is its AI-powered system for generating assessment questions, including both multiple-choice and essay formats. This automation significantly reduces the time and effort required for teachers to manually prepare assessments. In addition, the platform automatically grades responses tracks student progress and provides detailed performance analytics.

Furthermore, Royyana et al. (2025) emphasize that Teachy fosters a digital learning environment by facilitating online content delivery and classroom management. Students can conveniently access learning materials and activities through their mobile devices by logging into their accounts. All resources and assessments are managed digitally, eliminating the need for printed documents and manual grading.

In summary, Teachy is a modern digital assessment tool that leverages AI to facilitate efficient, engaging, and data-driven learning experiences. Its capabilities in automated question generation, scoring, and performance tracking make it a valuable resource in implementing digital assessment practices, particularly in the context of grammar mastery and other language skills.

### **2.3 Discussion Text**

Discussion text is a type of non-fiction writing that presents a balanced examination of a controversial issue by outlining arguments from both sides — those in favor and those against —before offering a conclusion or proposed solution. According to Pitrianti (2017), the strength of a discussion text lies in its ability to present opposing viewpoints supported by credible evidence, such as facts, statistical data, personal experiences, and expert opinions. To construct such a text effectively, students must understand the topic at hand and engage in extensive reading and critical thinking.

As outlined by Djahimo (2018), a well-structured discussion text should include three main components: an introductory paragraph that introduces the issue or presents a guiding question, a body that presents a series of arguments for and against the problem, and a conclusion that articulates the writer's final stance. The

body paragraphs must present each side objectively, with equal depth and fairness, allowing readers to consider the issue from multiple perspectives. This structure highlights the importance of organizational clarity and coherence in argumentative discourse.

Utami & Rochsantiningsih (2018) further emphasize that writing discussion texts poses a challenge for second language learners (L2) because it requires high-level and low-level writing skills. On the one hand, students must demonstrate advanced cognitive abilities such as planning, organizing, and synthesizing information. On the other hand, they must also master foundational writing mechanics, including grammar, punctuation, spelling, and appropriate word choice. This challenge highlights the importance of applying suitable teaching and assessment methods that can effectively support students in developing both their content organization and linguistic accuracy.

In summary, discussion texts are a critical genre of text in language learning that demands a balance of analytical thinking, structured argumentation, and linguistic precision. Students must be able to explore issues from multiple perspectives, support their arguments with credible evidence, and articulate a well-reasoned conclusion. This process is particularly challenging for second language learners due to the need to master both the organization of ideas and the accuracy of language use. As such, educators must implement effective instructional and assessment strategies that address content development and grammatical competence, ensuring students can write discussion texts successfully.

## **2.4 Grammar**

To understand how grammar is discussed and applied in this study, it is important to begin with a clear explanation of what grammar actually means. The following subsection outlines the definition of grammar and grammar mastery, which serves as a starting point for exploring its role in language learning and assessment.

### **2.4.1 Definition of Grammar**

According to Alem (2022), grammar is defined as a system of meaningful structures and patterns governed by pragmatic constraints that shape the way a language functions. It consists of rules and principles that guide the combination of words to form coherent sentences. Grammar is crucial in enabling speakers and writers to construct meaning systematically and communicate thoughts effectively within a given linguistic context. Without a solid understanding of grammatical structures, the organization and interpretation of language would be ambiguous and inconsistent.

Hanief & Supuwingsih (2020) further argue that grammar serves as the foundational framework that ensures clarity and coherence in sentence construction, especially in formal communication. Mastery of grammar enables individuals to convey their intended messages with accuracy and precision while also adhering to the norms and conventions of the target language. Grammar is not merely about correctness; it is about making meaning intelligible and socially appropriate across different communicative contexts.

Despite its importance, many English learners find grammar challenging to learn and apply. (Kuiper & Allan, 2024) Note that learners often struggle with the abstract nature of grammatical rules and the need to comprehend complex patterns

that vary according to tense, context, and usage. These difficulties can lead to misunderstandings or errors in both spoken and written communication. Learners may find it hard to internalize grammatical concepts, especially when these differ significantly from those in their first language.

In summary, grammar is an essential component of language that provides the structural foundation for effective communication. It consists of systems and patterns that must be mastered to convey meaning accurately and appropriately. While grammar is vital in ensuring clarity and precision in both everyday and formal contexts, it remains a common area of difficulty for language learners. Therefore, teaching approaches must be designed to make grammar more accessible and engaging, helping students to overcome these challenges and achieve greater proficiency in English.

#### **2.4.2 Grammar Mastery**

Learning grammar is essential for students to develop the ability to speak and write English accurately and appropriately. As emphasized by Fadhilawati (2021), grammar functions as a foundational element that equips learners with the tools to structure their thoughts clearly in both spoken and written forms. A solid grasp of grammar enables students to convey meaning effectively, avoid ambiguity, and adhere to the linguistic norms expected in various social, academic, and professional settings. In language learning, especially English as a Foreign Language (EFL), grammar instruction plays a vital role in bridging the gap between basic vocabulary usage and fluent, coherent communication.

Despite its importance, students frequently encounter challenges in mastering grammatical rules and often make recurring errors. According to Singh et al. (2017), such errors are common among EFL learners and are usually caused

by a lack of understanding of grammar usage in context. These difficulties may arise from the complexity of English grammatical structures, interference from the learners' native language, or insufficient practice. Without adequate grammar proficiency, students may struggle to express ideas clearly, which can hinder overall communicative effectiveness.

In addition to improving communication, the correct use of grammar can significantly enhance a learner's credibility and perceived professionalism. (Widianingtyas et al., 2023) argue that individuals who use grammatically accurate language are often viewed as more competent, trustworthy, and educated. In formal or academic environments, the use of proper grammar reflects attention to detail and a high level of language proficiency, which can influence how a speaker or writer is perceived by their audience. For students, mastering grammar can contribute not only to academic success but also to future career readiness, especially in contexts where English serves as the medium of communication.

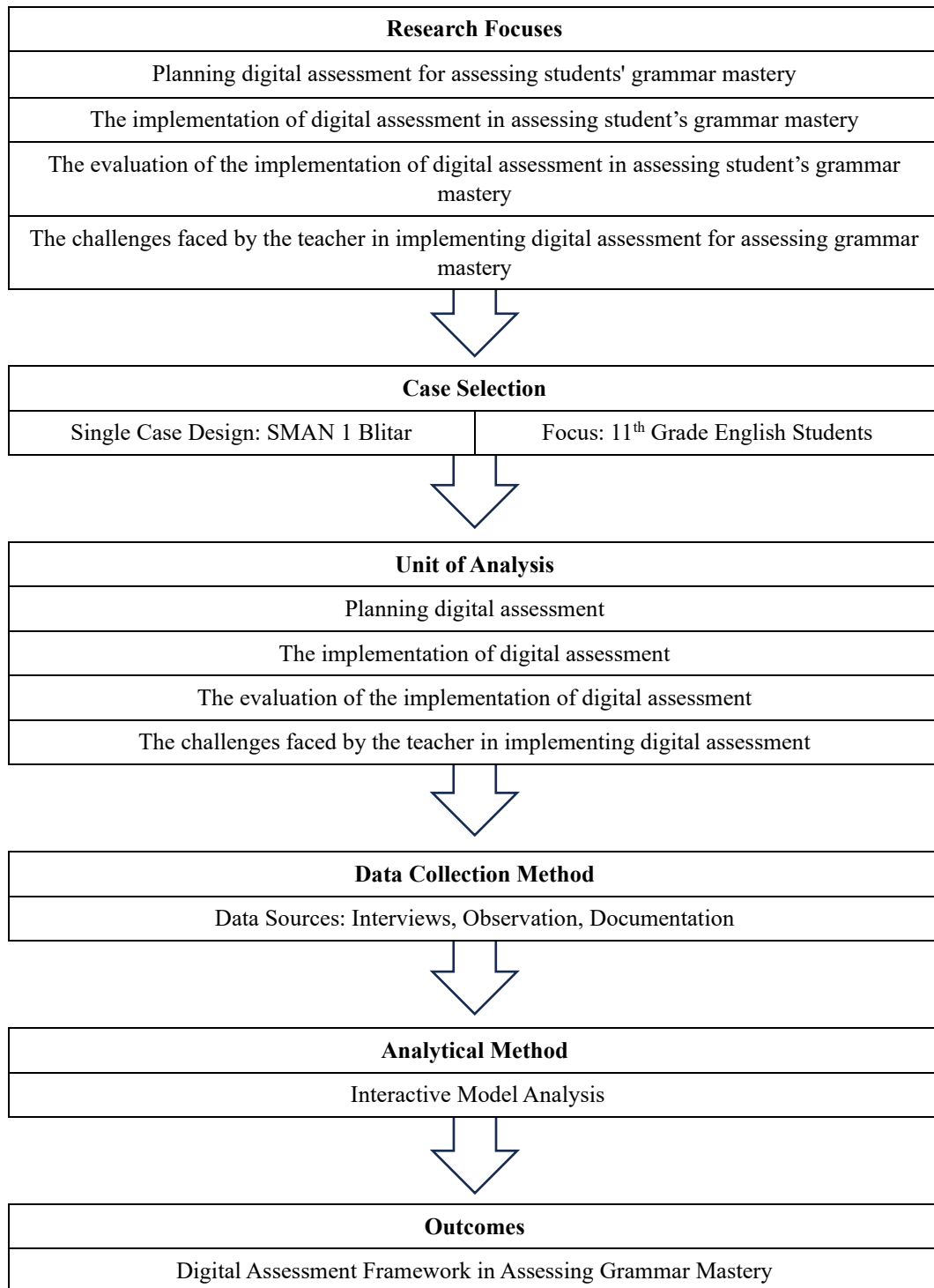
In summary, grammar is central to language learning, serving as the backbone for accurate and effective communication. It empowers students to express their thoughts with clarity and precision while also supporting their academic and professional development. Although many learners find grammar challenging, its mastery is indispensable for building fluency, credibility, and confidence in using English. As such, educators must prioritize grammar instruction through engaging, context-rich approaches that support long-term language proficiency and learner success.

## 2.5 Relevant Studies

**Table 2.1:** Relevant Study

No	Research Title	Researcher Name	Difference	Similarity
1	Digital Transformation in Assessment and Evaluation Course: The Effects of Web 2.0 Tools (2021)	Fatma Cumhur and Şefika Sümeyye Çam	The study used a mixed-method research design and didn't use Teachy as a digital platform for assessment	The study focuses on the implementation of digital assessment by applying the qualitative case study method
2	Pengaruh Model Pembelajaran Ctl Type Crh dengan Bantuan Media Teachy.App untuk Meningkatkan Critical Thinking Dan Litnum Kelas Vi Sd Negeri Kalisalam 1 (2025)	Malqa Dewi Royyana, Didit Yulian Kasdriyanto, Ribut Prastiwi Sri Wijayanti	The study is targeted at elementary students and focuses on critical thinking skill	The study discusses the use of Teachy as a digital assessment platform
3	Strengths And Limitations of Online Apps Used in English Grammar Proficiency Assessment (2024)	Oxana Stanțieru	The study didn't use Teachy as one of the digital applications used and used a descriptive-analytical approach	The study focuses on digital assessment applications (Kahoot, Quizziz, etc.) to assess grammar proficiency
4	Paper assessment or online assessment: exploring the impact of assessment modes on EFL students' language learning outcomes and personal development (2024)	Barno Sayfutdinovna Abdullaeva, Fidel Çakmak and Diyorjon Abdullaev	The study used a quasi-experimental design, and the research setting is at the university level	The study focus is exploring the use of digital assessment in English learning
5	Digital Assessment Tools: As a Media for Assessing High School Science Learning (2024)	Riza Andriani, Mellyzar, Isna Rezkia Lukman, Muttakin, Evawati, Ali Imron Pasaribu, and Mhd. Ridwan Fadli	The study employs a research and development (RnD) method	The study focuses on the use of digital assessment tools at the high school level

## 2.6 Conceptual Framework



**Figure 2.1:** Conceptual Framework