CHAPTER I

INTRODUCTION

This chapter discusses several key aspects of the research, including the background of the study, problem statement, the research objectives, the significance of the research, and the scope of the study.

A. Background

In the digital era, the integration of technology in education has become a necessity that cannot be ignored. Innovative and interactive learning approaches are one of the solutions to increase student engagement and the effectiveness of the learning process. In line with these developments, various technology-based learning platforms are available to support a more dynamic and enjoyable learning experience.

One such platform offering innovation in learning is Quizizz. Quizizz is an engaging and interactive learning platform designed to make the process of learning both fun and effective. Its game-based approach helps students remain motivated while reinforcing key concepts in real-time. The platform allows for self-paced learning, instant feedback, and dynamic interactions, making it an ideal tool for modern education.

The Quizizz application technology has become an effective tool in teaching descriptive writing through differentiated methods. With its interactive, digital-based features, this application facilitates educators in creating a more engaging and adaptable learning experience tailored to each student's needs ((Dewi et al., 2022). In the context of descriptive writing instruction, Quizizz provides opportunities for students to explore various approaches to writing through quizzes adapted to their individual abilities (Anjeli, 2023). Through the use of differentiated methods, each student can receive questions or exercises matching their difficulty level, thereby promoting a gradual and structured

development of writing skills (Alfiyah et al., 2023). The application also enables faster and more accurate evaluation, ultimately assisting teachers in monitoring student progress and offering constructive feedback (Pratiwi & Waluyo, 2023; Dong, 2021).

The application of Quizizz technology in teaching descriptive writing through differentiated methods is becoming increasingly significant in the digital education era. This technology enables educators to create a more interactive and tailored learning experience that aligns with each student's unique needs. By employing Quizizz, students can explore diverse approaches to writing, especially within practice sessions that are adapted to their individual skill levels. This customization allows each learner to face challenges appropriate to their difficulty level, thus promoting a gradual and structured development of writing skills. Furthermore, the application's rapid and accurate assessment features assist teachers in effectively monitoring student progress and providing constructive feedback. The positive impact extends beyond academic improvement, as it also prepares students to become more competitive future professionals. Through the integration of technology like Quizizz in education, learning systems can become more inclusive and responsive to the global demand for adaptive, digitally-driven education.

The application of Quizizz technology in teaching descriptive writing through differentiated methods at SMKN 8 Majene, West Sulawesi, is highly relevant to the demands of modern education. Based on data gathered from various studies, the use of technology-based learning applications such as Quizizz can enhance students' writing ability and motivation in the learning process. Research indicates that students engaged with interactive platforms experience a 15-20% improvement in participation and learning outcomes compared to conventional methods. Quizizz allows teachers to deliver varied and level-appropriate questions for each student, making this method more inclusive and effective in improving the quality of learning. Thus, this

application presents an optimal solution to addressing challenges in teaching descriptive writing across diverse student skill levels.

Additionally, evidence demonstrates that technology-assisted differentiated instruction can accommodate a wide range of student learning styles. Data from national studies reveal that 85% of teachers employing technology-supported differentiated approaches report significant improvement in students' writing skills. This is also relevant at SMKN 8 Majene, where varying student abilities in descriptive writing represent one of the primary challenges. National statistics further indicate that 70% of students show improved comprehension when content is delivered interactively through applications like Quizizz. These findings underscore the importance of research focusing on the integration of technology in English language instruction, particularly in the development of descriptive writing skills.

However, despite the implementation of technology at SMKN 8 Majene, challenges remain in English language learning, particularly concerning students' low proficiency in descriptive writing. Observations at this school reveal that the average student score in descriptive writing skills is only 60, significantly below the established minimum competency standard of 70, as set by the KKTP (Criteria for Learning Competency Mastery). This issue suggests that the existing instructional methods have not yet fully supported students in achieving satisfactory results. One contributing factor is the lack of approaches tailored to individual student needs, which could be addressed through differentiated methods and the use of technology like Quizizz. Optimally implementing this technology is anticipated to resolve these issues and significantly enhance students' learning outcomes.

Ideally, the application of Quizizz technology in teaching descriptive writing through differentiated methods is expected to provide an interactive, adaptive, and individually tailored learning experience. This technology should facilitate a more engaging learning process by leveraging its gamification features, such as real-time assessment, leaderboards, and exercises adaptable to

students' abilities. However, field observations reveal challenges in its implementation. Not all teachers are able to maximize the potential of Quizizz's features, resulting in instruction that often remains uniform and does not accommodate differences in students' abilities and learning styles. Furthermore, limitations in using this application to support descriptive writing skills often result in a lack of student motivation to participate actively with the material, there by preventing the full realization of differentiated instruction's effectiveness.

Moreover, there are gaps in previous studies that have yet to fully address issues related to the effectiveness of Quizizz in teaching descriptive writing through a differentiated approach. Most existing studies focus primarily on the general use of this application, without specifically addressing how it can be integrated with differentiated teaching methods to meet the diverse needs of students. Additionally, the limited research examining how Quizizz can comprehensively enhance descriptive writing skills underscores the need for further studies that closely explore the relationship between the use of Quizizz, differentiated methods, and student learning outcomes in writing skills. Therefore, research focused on this aspect is expected to make a significant contribution to bridging the literature gap and providing practical solutions for implementing more effective and responsive descriptive writing instruction that meets students' needs.

The novelty of this research concept lies in the integration of Quizizz technology with differentiated learning methods, a combination that has yet to be comprehensively implemented in the context of teaching descriptive writing. According to Anderson and Krathwohl (2001), effective learning requires an approach that can adapt to individual student needs, and the use of technology to support differentiated instruction is one innovation capable of achieving this. This study offers a new approach by combining personalization and adaptive assessment features through Quizizz, which automatically adjusts question difficulty to match students' abilities. This concept supports Gardner’s (2006)

findings on the theory of multiple intelligences, which emphasizes the importance of flexible, tailored approaches aligned with students' learning styles. This novelty not only provides a solution to issues of low engagement and motivation in writing instruction but also addresses gaps in previous research that have not deeply examined the application of Quizizz in descriptive writing contexts. Thus, this research is expected to make a significant contribution to the development of a more inclusive and effective instructional model.

The novelty of this research concept lies in the integrative approach combining the use of Quizizz technology with differentiated instruction, an approach that is still rarely applied comprehensively in the context of teaching descriptive writing. (Tomlinson, 2014), differentiated instruction requires strategies that are responsive to individual student needs, including their abilities, interests, and learning styles. This approach emphasizes the importance of adjusting the content, process, and products of learning to facilitate optimal learning outcomes for each student. However, research that combines aspects of gamification and interactive technology like Quizizz with differentiated instruction remains limited. Therefore, this study aims to provide a new contribution by examining the effectiveness of digital platforms in accommodating diverse student learning needs, while simultaneously enhancing motivation and descriptive writing skills more deeply. Consequently, the findings of this research are expected to enrich the literature on integrating technology in English instruction that is inclusive and responsive to individual student differences.

This study specifically focus on the use of Quizizz technology in teaching descriptive writing through differentiated instruction. This study examined how Quizizz is utilized as a learning tool to enhance students' motivation and in the writing learning process. The focus is on the application's ability to provide questions tailored to students' proficiency levels and how Quizizz's interactive features can influence students' motivation to engage more

actively in learning. Additionally, this research investigate how student in differentiated instruction, specifically in the context of descriptive writing, can be improved through the use of this technology. With a defined scope, this study employed quantitative approaches to evaluate the impact of Quizizz usage. The title of this research is "the impact of using the quizizz application differentiated instruction on students' learning motivation".

This research focused on addressing issues related to low student descriptive writing ability and motivation in English learning. identified as one of the primary challenges in the learning process. In this context, Quizizz is expected to provide a solution to these issues by offering a more personalized and interactive learning experience. With differentiated instruction supported by technology, this study explored how Quizizz can be effectively implemented to help students achieve improved learning outcomes. Additionally, this research contribute to enriching the discourse on the application of technology in education, particularly in descriptive writing instruction through a more inclusive and adaptive differentiated approach.

B. Problem Statement

The challenges in implementing Quizizz technology for descriptive writing instruction through differentiated methods have highlighted the need for further investigation. Although Quizizz is theoretically designed to support adaptive learning, there is a gap between expected and actual outcomes in practice. Some teachers still struggle to tailor Quizizz questions to meet individual student needs, while students with varying skill levels may feel less motivated or not fully engaged in the learning process. This situation indicates that the use of Quizizz in differentiated instruction requires deeper study, particularly to assess its impact on student motivation and engagement in descriptive writing instruction.

Based on these issues, this study formulates two main research questions:

1. What “The impact of using Quizizz on students' ability in writing descriptive texts?”
2. What "The impact of utilizing Quizizz in differentiated instruction on students' learning motivation?"

These questions guide the exploration of Quizziz effectiveness and its role in enhancing the quality of descriptive writing instruction through a more adaptive and inclusive approach.

C. Research Objectives

This study aims to explore the impact of using the Quizizz application in differentiated instruction on students' learning motivation and examine the impact of using Quizizz on students' ability to write descriptive texts. Examining how Quizizz's interactive features influence students' motivation in the learning process, this research seeks to provide a clear picture of the effectiveness of this technology. The primary objective of this study is to determine whether the use of Quizizz can enhance students' motivation in descriptive writing instruction through a differentiated approach. The expected outcome is a significant increase in students' learning motivation through a more personalized and interactive approach.

D. Significance of the Study

This research holds significant theoretical benefits, particularly in enriching academic studies related to the application of technology in education. Specifically, this study contributed to the development of theories on the use of interactive learning applications, such as Quizizz, in the context of differentiated instruction. It is also expected to reinforce the concept that digital technology can be effectively integrated into educational processes to improve learning outcomes, particularly in terms of student writing ability and

motivation. Thus, this research has the potential to expand the literature on technology-based learning and inclusive teaching methods.

Additionally, this study provided a strong foundation for further research exploring the interaction between educational technology and differentiated instruction methods. Through the findings of this research, it is hoped that new models or theoretical frameworks can be developed regarding how interactive applications like Quizizz can be optimized to support a more adaptive learning approach. These findings offer deeper insights into the impact of technology on wrting ability and learning motivation across various subjects, including in the context of descriptive writing instruction.

Practically, this research benefit educators, particularly secondary school teachers, by helping them maximize the use of Quizizz as a learning tool. Teachers can utilize the findings of this study to better understand how to leverage Quizizz interactive features to enhance students' writing ability and motivation in learning. With this technology-supported differentiated approach, teachers can design more effective instructional strategies that are responsive to individual student needs, leading to significantly improved learning outcomes.

Furthermore, this research also provide practical benefits for developers of educational applications like Quizizz. The findings of this study can serve as a guide for developing features that are better suited to educational needs, especially in contexts that focus on student engagement and content differentiation. This make the application not only more effective in supporting the learning process but also more relevant to the increasingly digital and adaptive demands of the education sector.

E. Scope of the Research

This research is confined to disciplines under the umbrella of applied linguistics, specifically focusing on English language teaching. Applied linguistics plays a crucial role in this study as it is closely related to how language is effectively used and taught, including the integration of methods

and technology in the teaching process. This study specifically examine how theories and practices within applied linguistics, particularly in the context of English language teaching, can leverage application technology to support more efficient and differentiated learning.

In terms of research content, the main focus is on using the Quizizz application in descriptive writing instruction through differentiated methods. This focus ensures that the study will concentrate on the implementation of Quizizz as an instructional tool for teaching descriptive writing skills and how differentiated teaching methods can assist students with varying learning abilities. This aspect is crucial, given that the primary goal of differentiated instruction is to meet individual student needs, and Quizizz was chosen due to its interactive features and its ability to adjust content according to different student proficiency levels.

Additionally, this research is limited to a more specific form of instructional activity: English language teaching. Focused directed towards the teaching of English writing skills, with particular attention to students' ability to produce descriptive writing that meets academic standards. By emphasizing English language instruction through differentiated methods, this research aims to explore the extent to which technology, such as Quizizz, can enhance student motivation in learning, specifically in developing descriptive writing skills.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter provides several important components of the research, including theoretical framework, previous studies, the conceptual framework, and the research hypotheses. Each section provide a comprehensive foundation for understanding the theoretical background, the context of related research, the structure of ideas guiding the study, and the assumptions that tested through this research.

A. Previous Research

The integration of Quizizz in differentiated instruction has shown a positive impact on enhancing student writing ability and motivation in the learning process. As a flexible digital platform, Quizizz allows educators to tailor content to individual students' learning levels, preferences, and needs, aligning closely with the principles of differentiated instruction. This customization fosters a more personalized learning environment, where students are more likely to stay motivated and engaged (Ramadhani & Ardi, 2024). By adjusting quiz difficulty levels and incorporating gamified elements, educators can create a more inclusive and responsive classroom atmosphere that addresses the unique needs of each learner.

Gamification features in Quizizz, such as leaderboards and rewards, provide an engaging and competitive framework that encourages active participation and promotes positive learning outcomes. These game-based elements not only make learning enjoyable but also help build students' intrinsic motivation by offering immediate feedback and a sense of accomplishment (Herawati & Erawati, 2023). This aligns with self-determination principles that underscore the importance of competence and autonomy in fostering students' intrinsic motivation, creating a balanced and enriching learning experience.

Moreover, Quizizz supports a collaborative learning environment that enhances student engagement through interactive, student-centered activities.

With options for live and independent quizzes, students can engage in self-paced or group activities according to their learning preferences, which fosters cognitive, emotional, and behavioral engagement. This interactive platform encourages students to take ownership of their learning, ultimately leading to a more dynamic and responsive classroom experience (Kang & Recard, 2023). Through these strategies, Quizizz not only serves as an assessment tool but also promotes differentiated learning that caters to diverse student needs.

B. Some pertinent ideas

1. Writing Concepts

The concept of writing is the main foundation in the development of language skills which not only includes technical aspects, such as grammar and structure, but also involves the ability to think critically, to convey ideas systematically, and to be in line with the desired communication objectives.

This research is focused on examining the application of Quizizz technology in teaching descriptive writing through differentiated instruction. The study seeks to understand how Quizizz can enhance students' motivation and engagement within the learning process for descriptive writing. By tailoring questions to match each student’s proficiency level, Quizizz encourages active participation, which is further supported by its gamified features designed to boost motivation (Siregar, n.d.). Additionally, this research explored the influence of Quizizz on student engagement in a differentiated instructional setting, specifically in improving descriptive writing skills (Hartono & Syafri, 2024). The mixed-methods approach employed in this study provide a comprehensive assessment of the impact of Quizizz usage on students' learning experiences in a differentiated classroom, aiming to bridge existing research gaps and contribute valuable insights to modern pedagogy (Kholid et al., 2024).

Writing, particularly in the context of descriptive text, is often seen as a process involving several interconnected stages: planning, drafting, revising, and editing. Each of these stages demands critical reflection on the ideas that

the writer intends to communicate. During the planning phase, writers select a topic, determine the purpose, and organize main ideas, laying the groundwork for coherent expression. In the drafting stage, ideas are expanded freely, creating an initial flow of thoughts. The revision stage then allows writers to improve content, organization, and style, enhancing the overall clarity and impact of the text. Finally, the editing stage addresses technical elements such as grammar, punctuation, and spelling, ensuring the text is polished and effective for readers (Arista, 2021). This structured approach supports writers in developing clear, engaging, and descriptive narratives that capture readers' attention.

In teaching writing, it is crucial for educators to consider the approach that makes the learning experience both effective and meaningful for students. The process approach provides students with opportunities to learn writing through repetitive and reflective practices, allowing them to improve their texts based on iterative feedback (Nasihah & Senta, 2022). Conversely, the product approach emphasizes the final written product, focusing on structure and format according to specific text genres, which supports clarity and coherence (Ismayanti & Kholiq, 2020). Each approach has unique strengths and can be applied in a balanced manner, catering to learners' individual needs and objectives. A comprehensive understanding of these approaches is essential for enhancing students' writing skills, encouraging them to develop as critical, creative, and effective writers (Uluelang & Akib, 2020).

2. Definition of Writing

In language learning, writing is recognized as a productive skill that involves the organization and communication of ideas or information in a clear, effective manner. Writing is not merely the construction of sentences but also the conveyance of ideas, emotions, and perspectives through structured text. Effective writing requires the writer to employ critical thinking, creativity, and an understanding of context and purpose (Fitria, 2023). The skill demands not only linguistic proficiency but also the ability to reflect on the needs of the

target audience and adapt content accordingly. As a complex skill, writing necessitates continual practice and a deep understanding of how to convey messages accurately, aligning with the demands of both academic and practical communication (Handayani & Aminatun, 2020).

In the context of language learning, writing is more than a means of communication; thereby strengthening thit is a productive skill that fosters the organization and expression of ideas in a structured form. Writing allows learners to reflect on their thoughts and solidify them into coherent ideas, enhancing cognitive development and critical thinking (Baresh, 2022). This process often involves multiple stages—planning, drafting, revising, and editing—that require writers to critically evaluate both content and form, honing analytical skills as they refine their text (Din, 2020). Additionally, writing challenges students to develop logical arguments, pay attention to language precision, and ensure their ideas are accessible to the target audience, eir linguistic and cognitive abilities (Mohseni et al., 2020). Thus, writing is not only central to language acquisition but also essential for developing higher-order thinking skills, encouraging learners to be more critical and reflective in their communication.

In language learning, writing is defined not merely as the act of producing text but as a complex skill encompassing various genres and purposes. Each genre—such as narrative, descriptive, argumentative, and expository—carries unique characteristics and conventions that writers must master. Additionally, the purpose of writing plays a crucial role in shaping the language style and structure, distinguishing informative writing from persuasive forms (Huang & Jun Zhang, 2020). For instance, an informative piece will adopt a clear, factual tone, while persuasive writing employs rhetorical devices to sway readers. Mastering these genre and purpose variations is essential for effective communication, as students learn to adapt their writing to different contexts and audiences (Hyland, 2022). Thus, the definition of writing expands

beyond simple text production to include genre analysis, purposeful language use, and critical adaptation to suit diverse communicative needs.

3. Types of writing

In language learning, understanding the different types of writing is essential, particularly in English. Writing is generally categorized based on purpose and text characteristics, including expository, narrative, descriptive, and argumentative writing. Expository writing is designed to inform or explain a topic with clarity and logic. The primary objective of expository writing is to provide readers with a structured understanding of a subject by presenting factual information, examples, or data that support the central idea (Karafkan et al., 2022). Common examples include scientific reports, essays, and encyclopedic articles, where writers are expected to present information objectively and in an organized format. Mastering these different types allows students to adapt their writing styles according to communicative needs, thereby enhancing their overall language proficiency (Pyo, 2020).

Descriptive writing plays a crucial role in language learning as it enables students to convey vivid and detailed imagery of objects, places, or events. By focusing on sensory language and specific vocabulary, descriptive writing encourages students to express intricate details that help readers visualize the subject, thereby creating an immersive and engaging experience (Hadi et al., 2021) (Suastra & Menggo, 2020). This approach not only builds students' vocabulary but also strengthens their ability to articulate nuanced descriptions, which are essential for both creative and academic writing contexts. Meanwhile, narrative writing emphasizes storytelling and the development of characters, settings, and events, often used to entertain or reflect on personal experiences, fostering language fluency and structural coherence in storytelling (Ramadhan et al., 2020; Singh et al., 2020). Argumentative writing, on the other hand, challenges students to present reasoned arguments supported by evidence and analysis, honing their critical thinking and logical reasoning skills essential for academic communication (Sundari & Febriyanti, 2021). Together, mastering

these writing types empowers students to tailor their language to diverse communicative purposes, enhancing their overall linguistic proficiency.

4. Descriptive text

Descriptive text is integral to language learning, as it allows students to portray objects, people, places, or events in rich detail. This writing genre engages learners in using sensory descriptions, helping them to create vivid mental images for readers. Through descriptive text, students not only learn vocabulary and grammar but also develop observational skills essential for capturing nuances in language (Afika et al., 2022). By incorporating sensory language, learners build a more robust understanding of how to convey abstract and concrete concepts effectively.

In terms of structure, descriptive texts generally include two primary components: identification and description. The identification serves as an introduction, presenting the subject to the reader, while the description offers elaborate details that cover various aspects such as appearance, qualities, and unique characteristics. This structured approach ensures clarity and enhances readers' understanding by systematically guiding them through the described subject (Saifudin & Setiawan, 2020). Furthermore, the use of precise vocabulary and adjectives in descriptive text enables learners to enhance the readability and appeal of their writing, fostering a stronger connection between writer and reader.

Additionally, descriptive text is widely valued in English language education for its contribution to the holistic development of writing skills. Teaching descriptive writing not only supports vocabulary acquisition but also encourages students to focus on the details of their environment, promoting a deeper appreciation for descriptive language. This skill is particularly important as it supports learners in various communicative contexts, from creative writing to academic descriptions (Sari et al., 2020; Sipayung et al., 2021). By mastering descriptive writing, students are better equipped to convey their ideas clearly

and engage readers effectively, thus enhancing their overall linguistic competence.

5. Differentiated Learning

a. concept and principles of Differentiated learning

The concept of differentiated instruction is a teaching approach designed to accommodate the diverse learning needs of students, taking into account various learning styles, abilities, interests, and backgrounds. According to Tomlinson, differentiated instruction aims to provide equitable opportunities for students by adapting the content, process, and product of learning to individual needs. This approach positions teachers as facilitators who employ flexible methods and materials to cater to the unique requirements of each student, fostering an inclusive environment that supports optimal engagement and learning outcomes (Wen, 2023). By understanding the different ways students absorb and process information, educators can better adapt their teaching methods to maximize student achievement.

Differentiated instruction is further reinforced by educational theories, such as Gardner's multiple intelligences theory, which identifies distinct types of intelligence, including linguistic, logical-mathematical, kinesthetic, and interpersonal skills. This theory suggests that recognizing and nurturing these varied intelligences can lead to more effective learning experiences (Ogundeji, n.d.). Additionally, constructivist theory, championed by thinkers like Vygotsky and Piaget, underscores the role of meaningful learning, social interaction, and scaffolding in differentiated instruction. These theories advocate for active learning processes, where students are encouraged to build their understanding through collaborative and supportive environments (Tokatlı, 2022).

A critical aspect of differentiated instruction is ongoing assessment, which enables teachers to gauge student progress and refine their instructional strategies. Formative assessments help educators identify specific learning needs, allowing them to adjust their approaches accordingly. Flexibility in

classroom and time management is another core principle, accommodating individual learning paces and methods to ensure each student has the chance to succeed. By implementing these foundational principles, differentiated instruction fosters an adaptive and responsive educational setting that meets diverse learner needs, ultimately supporting students in reaching their full potential (Osae, 2024).

b.Implementation of Differentiated Learning in the Classroom

The implementation of differentiated instruction is a strategic approach that aims to address the diverse learning needs, styles, and interests of students. By focusing on content, process, and product, this approach provides a flexible framework for teachers to adapt their methods to suit individual student readiness levels. Content adjustment is central to this approach, as it involves modifying learning materials to align with students' capabilities. Teachers may present information in varied formats or use resources with differing complexity levels to ensure each student can engage meaningfully with the subject matter (Onyishi & Sefotho, 2020). By customizing content, differentiated instruction enhances accessibility and enables students to progress at their own pace.

In addition to content, differentiated instruction requires adjusting the learning process, which involves employing diverse activities and instructional strategies to accommodate students' unique ways of learning. Teachers might implement techniques such as group discussions, project-based learning, and interactive games, fostering an environment where students can interact with the material in ways that resonate with their learning preferences (Strogilos et al., 2020). These varied instructional methods not only support comprehension but also increase engagement, as students become more actively involved in their own learning process. Process adjustments allow teachers to create a dynamic classroom environment that responds to the diverse needs of all learners.

The final component of differentiated instruction involves product adjustment, allowing flexibility in how students demonstrate their understanding. By offering varied forms of assessments and assignments—such as written essays, visual projects, or oral presentations—teachers can enable students to showcase their knowledge in ways that align with their strengths and interests (Roberts & Inman, 2023). This tailored approach empowers students to feel more confident and motivated, as they engage in assignments that are both challenging and attainable. Through these cumulative adjustments in content, process, and product, differentiated instruction fosters a responsive and inclusive classroom environment that encourages each student to reach their full potential.

6. Quizizz Application in Learning

a. Introduction and Key Features of Quizizz

Quizizz is a digital learning platform that enhances student engagement and interactivity through gamified features, allowing teachers to create quizzes, practice questions, and interactive games accessible online. This platform supports learning both during and outside school hours, promoting active participation among students. One of its primary advantages is its ability to create an enjoyable, competitive learning environment through elements such as real-time scoring, leaderboards, and attractive rewards (Inayati & Waloyo, 2022). By incorporating these gamification elements, Quizizz transforms traditional learning into an engaging experience, encouraging students to actively participate in learning activities.

Moreover, Quizizz is praised for its flexibility and accessibility, making it a popular choice among educators. The platform provides a vast question bank that allows teachers to select or adapt existing content or create new material tailored to curriculum requirements and student proficiency levels (Nurfadila et al., 2024). This flexibility supports differentiated learning, as teachers can design quizzes that cater to various student needs and learning

styles. Additionally, Quizizz offers live quiz options and independent practice modes, giving students the freedom to complete tasks anytime, thus fostering autonomy and self-paced learning.

Furthermore, the analytical tools available on Quizizz enable teachers to monitor student performance comprehensively, offering insights into achievement levels, question difficulty, and time taken per question. These features allow educators to evaluate instructional effectiveness and devise targeted interventions to support student development. Quizizz's compatibility with multiple devices, including computers, tablets, and smartphones, ensures easy implementation in diverse learning contexts. With its user-friendly interface and robust data-tracking capabilities, Quizizz not only functions as an assessment tool but also as a medium that supports differentiated and interactive learning experiences for all students ((Ridhwan, 2023).

b. The Role of Quizizz in Interactive and Differentiated Learning

Quizizz plays a transformative role in supporting differentiated and interactive learning by providing digital quizzes that are highly adaptable to various instructional needs. This flexibility allows teachers to create customized quizzes aligned with diverse student abilities and learning preferences, thereby promoting an inclusive and responsive educational environment (Siregar, n.d.-b)(Siregar, n.d.-b). Through gamified elements such as leaderboards and rewards, Quizizz makes learning engaging and enjoyable, encouraging students to participate actively and enhancing their motivation in the process (Matra & Dewi, 2024). Such gamification techniques help reduce learning anxiety and foster a more approachable learning atmosphere.

In terms of supporting differentiated instruction, Quizizz allows educators to deliver content that aligns with each student's level and learning style. Teachers can adjust quiz questions based on student proficiency, from simple to complex, thereby meeting learners where they are and gradually advancing their skills (Hartono & Syafri, 2024). This adaptability is critical in

mixed-ability classrooms, where a one-size-fits-all approach is insufficient. By providing real-time feedback, the platform also helps teachers identify areas where students may need further support, making it a valuable tool for formative assessments and ongoing student development.

Furthermore, Quizizz facilitates both individual and collaborative learning experiences, encouraging social interaction and independent study. The self-paced learning mode enables students to work through material at their own speed, enhancing retention and comprehension (Zhang & Huang, 2024). With its comprehensive analytics, Quizizz supports teachers in monitoring individual and group performance, thus enabling more targeted interventions. As an accessible and versatile platform, Quizizz enriches the learning process by accommodating a range of instructional strategies that cater to diverse learner needs and educational contexts.

7. Student Motivation and Engagement

a.Concept of Student Engagement in Learning

Student engagement is crucial for effective learning, encompassing cognitive, emotional, and behavioral aspects that collectively enhance students' active involvement. Cognitive engagement involves students' willingness to understand and apply the material, while emotional engagement relates to their motivation and feelings toward the learning environment. Behavioral engagement refers to students' participation in activities such as discussions and assignments, which are essential for sustaining their interest and involvement in learning (Subramainan & Mahmoud, 2020). Research highlights that engaged students are more likely to achieve higher academic success due to their consistent participation and commitment (Tao et al., 2022).

Additionally, internal factors such as motivation and self-confidence, and external factors, including teaching methods and classroom atmosphere, significantly impact student engagement. Effective teaching strategies—such as project-based learning, gamification, and collaborative tasks—create interactive

environments that stimulate student interest and promote deeper engagement (Ginting, 2021). Teachers' roles are instrumental in fostering a supportive atmosphere that encourages students to actively express ideas and engage without fear of failure, which enhances the overall effectiveness of the learning process.

To optimize student engagement, educators should continually assess and adapt their strategies, offering constructive feedback and aligning content with students' interests. Providing students with autonomy and varied learning activities further supports their cognitive and emotional investment. Studies show that engaging students through challenging but achievable tasks not only promotes their academic success but also develops lifelong learning skills (Pedler et al., 2020). High engagement levels, therefore, play a pivotal role in students' academic and social development, fostering a positive attitude toward learning.

8. Theory of Learning Motivation

Learning motivation, as conceptualized by Robert E. Slavin in his book Educational Psychology: Theory and Practice (2018), is an essential internal process that propels individuals to engage in learning activities, directing and sustaining their efforts to achieve particular goals. Motivation in learning is broadly categorized into intrinsic and extrinsic types. Intrinsic motivation originates from a learner's genuine interest or satisfaction derived from the learning activity itself. In contrast, extrinsic motivation is shaped by external factors such as rewards, recognition, or grades. Slavin's perspective underscores the multifaceted nature of motivation, which combines personal interest and external reinforcement to promote engagement and persistence in educational contexts.

Slavin links the concept of learning motivation to the expectancy-value theory, a framework that highlights two critical components influencing motivation: expectancy and value. Expectancy refers to a learner's belief in

their ability to succeed in a specific task, while value pertains to the perceived significance or usefulness of the task. According to Slavin, when students believe they can succeed and perceive the task as meaningful, they are more likely to be motivated. These insights stress the importance of aligning educational goals with learners' perceptions of competence and relevance, which are pivotal in enhancing their sustained interest and commitment to learning.

Teachers play a vital role in fostering motivation by creating a supportive and stimulating learning environment. Slavin emphasizes that educators can enhance students' motivation by designing meaningful and engaging tasks that connect with their interests and aspirations. Constructive feedback is another powerful tool that helps students recognize their progress, reinforcing their belief in their abilities. Furthermore, encouraging self-efficacy—a student's confidence in their capacity to execute tasks—is crucial for building a resilient and motivated learner. Teachers who effectively communicate high expectations while providing the necessary support empower students to take ownership of their learning journey.

In conclusion, Slavin's theory of learning motivation provides a comprehensive understanding of the interplay between internal and external factors in driving educational engagement. By applying the expectancy-value theory, educators can strategically address both students' beliefs in their success and the value they attribute to their learning tasks. This approach not only cultivates intrinsic and extrinsic motivation but also lays a foundation for lifelong learning by equipping students with the confidence and purpose to pursue their goals. Teachers, as facilitators of this process, are instrumental in creating environments that nurture motivation, making learning a fulfilling and trans formative experience.

9. The Relationship between Quizizz Use, Differentiated Learning, Motivation

The integration of Quizizz in differentiated instruction has proven effective in boosting student motivation and engagement within the teaching and learning process. As a flexible digital platform, Quizizz enables teachers to adapt quizzes and assignments to suit the individual needs, abilities, and interests of students, aligning with differentiated instruction principles. The ability to customize questions and select various game modes allows educators to create engaging and personalized learning activities, fostering greater student participation (Mohd et al., 2023). This customization is integral to developing a responsive, student-centered environment where each learner can actively engage with content at their own level.

Quizizz gamification features, such as leaderboards, real-time scoring, and rewards, play a significant role in enhancing learning motivation. These elements create a competitive yet enjoyable atmosphere that encourages students to engage diligently, aiming to improve their performance. The instant feedback offered by Quizizz further strengthens students' sense of accomplishment, reinforcing their competence and drive for mastery. This aligns with theories of intrinsic motivation, where autonomy and competence are central to fostering a deep interest in learning (Kadri & Hayroman, 2021).

Furthermore, Quizizz promotes both individual and collaborative learning experiences through live quizzes and independent practice modes, allowing students to engage in ways that suit their preferences. This flexibility supports autonomy and accountability, as students can choose activities and participate in settings that align with their learning styles, ultimately enhancing their cognitive and emotional engagement (Hartono & Syafri, 2024). Thus, Quizizz not only serves as an effective assessment tool but also enriches differentiated instruction by increasing student motivation, engagement, and participation, leading to more effective learning outcomes.

C. Concept Framework

The conceptual framework in this study focuses on the effect of using Quizizz in differentiation learning on students' ability to write descriptive texts and motivation. With features that enable independent learning, instant feedback, and dynamic interaction, Quizizz is expected to create a more engaging and adaptive learning environment. This study explores the extent to which the use of technology in differentiation-based learning can improve the effectiveness of the learning process and encourage the active involvement of learners.

The Conceptual Framework:

1. Input: Role in Increasing Students Writing ability and Motivation

In the context of differentiated instruction, the primary input in utilizing Quizizz is its role in enhancing student writing and motivation. Learning motivation is a key factor influencing the learning process and outcomes, as explained in the Self-Determination Theory by Deci and Ryan, which emphasizes the importance of meeting the needs for autonomy, competence, and relatedness in motivating students. By providing features such as real-time feedback, competitive scoring, and virtual rewards, Quizizz acts as an external stimulus that can boost students' intrinsic motivation.

At this input stage, teachers also play a critical role in organizing and adjusting learning materials on Quizizz to match students' ability levels, interests, and learning styles. The implementation of differentiated instruction through this platform allows teachers to present relevant and varied content and offers students opportunities for both independent and collaborative learning. Thus, focusing on Quizizz utilization in differentiated instruction is expected to significantly enhance student writing ability and motivation, particularly in the experimental class focused of this research. This experimental class serve as a space for students to experience an interactive and directed learning process,

where their writing ability and motivation can be comprehensively observed and measured.

2. Process: Steps for Learning English Using Quizizz

In the process phase, Differentiated learning using Quizizz in teaching descriptive texts is designed to adapt teaching strategies to the level of readiness, interest, and learning profile of students. This process includes three main stages, planning and preparing materials, implementing learning that is in accordance with student needs, and evaluating learning outcomes through data-based feedback.

In the planning stage, teachers analyse students' learning needs in order to develop materials that suit their different abilities. The learning materials are presented in the form of interactive quizzes, exercises, and educational games aimed at developing descriptive writing skills. Quizizz allows teachers to develop questions with varying levels of difficulty tailored to the abilities of each student. This way, each student can do exercises that match their competencies, making the learning process more effective.

Furthermore, in the implementation stage, teachers choose a learning mode that can be adjusted to the needs of students, either through direct competitive quizzes or independent assignments that allow students to learn at their own pace. This approach allows for learning differentiation, where students with higher comprehension are given more complex exercises, such as describing objects with richer vocabulary and more varied structures. Meanwhile, students who still need guidance are given questions that are equipped with visuals or limited word choices to help them compose descriptive texts more systematically.

The final stage of this process is the evaluation of learning outcomes supported by analytical reports provided by Quizizz. The report includes the students' level of understanding, the time taken to complete the questions, and common error patterns. Teachers then analyse this data to provide more

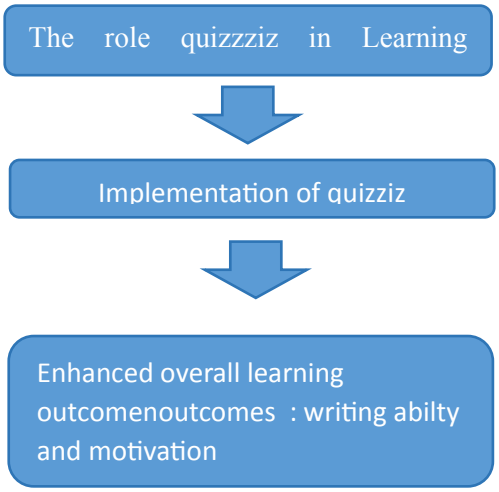
personalised feedback and develop more appropriate learning strategies for the next session. If a dominant difficulty is found, for example in the use of adjectives in descriptive text, the teacher can devise a pedagogical intervention in the form of additional, more targeted exercises. Thus, differentiated learning through Quizizz not only increases student engagement in the learning process, but also enables a more adaptive approach to effectively accommodate individual needs.

3. Output: Impact of Quizizz Learning on improving descriptive text writing skills and motivation

The use of the Quizizz application in the process of teaching descriptive text writing has a positive impact on improving the quality of learning. Through its interactive and gamified approach, Quizizz not only creates a more engaging learning environment but also enables teachers to adapt the learning materials to the individual abilities of each student. The instant feedback feature provided by the application helps students immediately identify their mistakes and encourages continuous improvement. Moreover, students can gradually practice their writing skills through relevant and structured exercises, resulting in descriptive texts that are more coherent, rich in vocabulary, and aligned with linguistic conventions. Therefore, the use of Quizizz in teaching descriptive text writing not only enhances students' motivation s but also significantly improves their writing skills.

The output from utilizing Quizizz in differentiated instruction is an increase in student motivation and engagement in the English learning process. Through the interactive approach offered by Quizizz, students are expected to be more enthusiastic and motivated to participate in each learning activity. Additionally, students' cognitive and emotional engagement will be enhanced as they are directly involved in a fun, competitive, and challenging learning process. Ultimately, structured learning tailored to students' needs through Quizizz will have a positive impact on learning outcomes, improved

understanding of the material, and the development of effective and sustained english language skills.



Based on the research title, question, and experimental design, here is a carefully constructed hypothesis statement

Here is an expanded description of the research points:

1. Input: Emphasizes the role of Quizizz in Process: Depicts the implementation within an experimental classroom setting.
2. Planning and Material Design: Developing tailored interactive quizzes and educational content suited to English language learning objectives.

   Execution of Quizzes and Interactive Activities: Utilizing Quizizz's features (like competitive scoring and real-time feedback) to encourage active participation.
3. Evaluation of Learning Outcomes: Monitoring real-time performance data and post-activity analysis for a comprehensive assessment of students' progress and understanding.

Output Shows the impact of this structured, differentiated learning approach through Quizizz, expected to yield:

1. Increased writing ability and motivation students.

2. Improved understanding of English material.
3. Enhanced overall learning outcomes with sustained, effective language skills development.

The results of this study showed significant improvements in students' understanding of descriptive writing skills after the implementation of the learning method using Quizziz. The use of this application provides a space for students to practice independently and get clear feedback on their strengths and weaknesses in writing. With more structured and personalised learning, students can develop their writing skills gradually. The application of Quizziz allows students to correct their mistakes in real-time, which helps them understand important concepts in descriptive writing more deeply.

Furthermore, the results of this study also showed a significant increase in students' motivation and engagement in the learning process of descriptive writing after the implementation of Quizziz application in writing instruction. The observation results showed that students who were previously less interested and less active in writing activities became more enthusiastic after using Quizziz as a learning tool. Through interactive features in this application, such as immediate feedback and gamification elements, students feel more motivated to actively participate in each learning session. The success of the Quizziz app in increasing this motivation proves that the right use of technology can encourage student engagement in the learning process.

Overall, the use of Quizziz in descriptive writing learning provides significant reinforcement to the learning process itself. This reinforcement is not only seen in the improvement of students' writing skills, but also in their increased confidence in producing quality descriptive texts. The differentiation method applied through Quizziz allows each student to learn according to their own pace and learning style, thus having a positive impact on the overall learning process. Thus, the Quizziz application is not only instrumental in

improving students' motivation and comprehension, but also in creating more effective and efficient learning in the writing classroom.

D. Hypothesis

The use of the Quizizz application in differentiated instruction significantly impacts students' ability to write descriptive texts." This hypothesis adheres to the principles of experimental research by establishing a clear and measurable relationship between the independent variable (Quizizz application in differentiated instruction) and the dependent variable (students' ability in descriptive texts), ensuring it is testable through empirical investigation

Null Hypothesis (H_0): The use of the Quizizz application in differentiated instruction does not have a significant impact on students' ability to write descriptive texts.

Alternative Hypothesis (H_1): The use of the Quizizz application in differentiated instruction has a significant positive impact on students' ability to write descriptive texts.

CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the research methodology, including the research approach and design, the location and time of the study, the population and sample, data collection techniques, and data analysis methods. Each section provide a detailed framework for understanding how the research is conducted, from setting up the study to collecting and analyzing the data.

A. Research Design

This study employs a quantitative research design with a quasi-experimental approach. This research design was chosen to determine the effect of the independent variable on the dependent variables by involving an experimental group and a control group. In this case, the experimental group receive special treatment through differentiated instruction using Quizizz, while the control group sfollow conventional instruction. A quasi-experimental design was selected because full randomization of the sample is not feasible, yet it still allows the researcher to control variables that may influence the study's outcomes.

In line with the research design, the variables in this study consist of the independent variable and dependent variables. The independent variable in this study is the use of Quizizz in differentiated instruction, implemented in the English learning process for the experimental class. The dependent variables in this study include students' ability to write descriptive text and motivation in the learning process. These two dependent variables are measured to assess the extent to which the use of Quizizz influences student learning outcomes and their perception of differentiated instruction.

The population in this study comprises all students at a secondary school participating in English language learning, while the sample is selected using

purposive sampling. This technique was chosen to ensure that the sample aligns with specific criteria, namely students who possess characteristics relevant to the research objectives. In this case, the sample consists of two classes with similar ability levels and learning backgrounds, with one class serving as the experimental group and the other as the control group. The research instruments include questionnaires to measure student motivation and a descriptive text writing test to assess students' writing skills.

To address the research question, “What is the impact of using Quizizz on students' ability to write descriptive texts?”, a quasi-experimental design with a pretest-posttest structure is also relevant. In this case, students’ descriptive text writing ability measured before and after the treatment in both the experimental and control groups. Students in the experimental group practice writing through differentiated instruction using Quizizz, while the control group engage in traditional writing instruction. Assessment is conducted using a writing rubric that covers aspects of content, organization, grammar, and vocabulary, mechanics. The test results analyzed quantitative to evaluate whether the use of Quizizz has a significant impact on improving students' descriptive text writing skills. To answer the second research question, “What is the effect of using Quizizz in differentiated instruction on students' learning motivation?”, the appropriate research design is a quasi-experimental design. This design enables the researcher to compare an experimental group, which receives the treatment of using Quizizz in differentiated instruction, with a control group that receives conventional instruction. Student learning motivation is measured through a questionnaire administered before and after the treatment (pretest-posttest) in both groups. Quantitative data analysis, such as t-tests, is used to determine whether there is a significant effect of using Quizizz on students' learning motivation. This design is suitable as it effectively identifies the causal relationship between the independent and dependent variables.

Research Variable and Operational Definition

1. Research Variables

a. Independent Variable

The use of the Quizizz application as an interactive learning medium to improve the students writing ability at SMKN 8 Majene.

b.Dependent Variable

The improvement of students of writing ability and motivations at SMKN 8 MAJENE after using Quizziz.

B. Research Location and Time

This study conducted at State Vocational High School (SMKN) 8 Majene, located in Majene Regency, West Sulawesi Province. The selection of this location is based on the consideration that the school has a learning program relevant to the research topic, specifically the application of differentiated instruction using digital tools like Quizizz. Furthermore, the diversity of student backgrounds and the readiness of teachers to implement technology-based interactive learning methods are supporting factors that justify the selection of this location for data collection.

Data collection is planned to take place in November. During this period, teaching and learning activities at the school are actively underway, allowing for the optimal implementation of the intervention, which involves using Quizizz in differentiated instruction. Data collection include a pretest, a treatment phase with Quizizz-based differentiated instruction in the experimental class and conclude with a posttest to obtain comprehensive data on students' writing skills and motivation.

C. Population and Sample

The population involved in this study consists of 11th-grade students at SMKN 8 Majene, comprising two classes. All of these classes follow a similar English curriculum and instruction, allowing them to represent the overall population. This study involve two main groups: the experimental group and the control group. The experimental group receive the treatment of using Quizizz in differentiated instruction, while the control group follow conventional teaching methods. The separation of these two groups is intended to compare the effectiveness of Quizizz in terms of student motivation and writing ability.

The sampling technique used is class random sampling, in which classes from the existing population are randomly selected to ensure that each class has an equal chance of being assigned as either the experimental or control group. Following the randomization process, one class chosen as the experimental group and one as the control group from the four classes. The use of class random sampling aims to avoid bias in sample selection and ensure that the study results can be generalized to the entire population of 11th-grade students at the school. Additionally, this technique helps to balance the characteristics between the experimental and control groups, allowing the treatment effect to be measured more accurately.

D. Instrument of the research

This study employed two types of instruments to support comprehensive data collection and analysis. The first instrument was an English writing proficiency test administered as both a pre-test and a post-test. This test was designed to assess students' initial abilities in writing descriptive texts before the intervention, as well as their final abilities after the intervention was implemented. This instrument is crucial for objectively evaluating changes in students' writing abilities, thereby providing insights into the effectiveness of the teaching methods applied. This approach aligns with the principles of quantitative research, which emphasize structured and valid measurement to empirically identify the effects of the intervention.

The second instrument was a learning motivation questionnaire based on the theory of learning motivation proposed by Slavin (1995). Slavin categorized learning motivation into several key dimensions: Interest in the Material, Learning Goals, Autonomy in Learning, Active Engagement in Learning, and Satisfaction and Pride in Learning Outcomes. This questionnaire was used to identify students' levels of motivation during the learning process, both before and after the intervention. The instrument provided quantitative data that allowed the researcher to analyze the relationship between learning motivation and students' academic performance.

Thus, the combination of the writing proficiency test and the learning motivation questionnaire is expected to yield research findings that are in-depth, relevant, and grounded in a strong theoretical framework.

E. Data Collection Techniques

The first research question, "What is the impact of using Quizizz on students' ability to write descriptive texts?", the data collection technique used is a writing test. The writing test is administered twice, once before the treatment (pretest) and once after the treatment (posttest). In the pretest, students are asked to write a descriptive text on a specific theme provided by the researcher to determine their initial writing ability. After the experimental group receives differentiated instruction using Quizizz, a posttest with a comparable writing theme is administered to measure students' writing development. Consistent with the data collection techniques for each research question, the validity and reliability of the data collection instruments are essential considerations. For the motivation questionnaire, content validity and reliability tested before use in the study population to ensure the questionnaire accurately measures the intended constructs and yields consistent results. For interviews and observations related to students' experiences and perceptions, the researcher must ensure that the interview and observation guides capture in-depth and contextually relevant data on the ongoing learning process.

Regarding the writing test as an instrument to measure students' ability to write descriptive texts, it is important for the researcher to design an instrument suited to the English proficiency level of 11th-grade students at SMKN 8 Majene. The assessment rubric must be clear and detailed, covering essential indicators in descriptive text writing. The evaluation will be conducted by two independent raters to reduce subjectivity and ensure assessment reliability.

To ensure the coherence and continuity of the collected data, data from each collection technique will be integrated and analyzed comprehensively. The results of the motivation questionnaire compared the writing test results will be analyzed alongside changes in students' motivation to examine possible correlationsss between the two variables under study. This approach allows the research to yield comprehensive and in-depth findings on the impact of using Quizizz on student writing ability and motivation.

F. Data Analysis Techniques

For the first research question, “What is the impact of using Quizizz on students' ability to write descriptive texts?”, data analysis is conducted using quantitative statistics by comparing the results of the pretest and posttest writing tests. A paired t-test is used to analyze changes in writing ability within the experimental group after receiving instruction using Quizizz. Meanwhile, an independent t-test can be employed to compare the posttest results of the experimental and control groups to determine whether there is a significant difference in descriptive text writing ability between the two groups. This analysis aims to assess the extent to which differentiated instruction with Quizizz contributes to improving students' writing skills to measure the significant differences students writing ability in statical analysis,(t-test), the researcher use SPSS in version 25 in the other measurement for is writing ability the researcher use rubric of writing by O'Malley & Pierce "Authentic Assessment for English Language Learners: Practical Approaches for Teachers.(1996).

Table 3.1 Descriptive Text Writing Assessment Rubric

Assessment Aspect	Criteria	Score
Content	Highly relevant, clear, and detailed description of the topic.	3
	Relevant and clear, but lacks sufficient detail.	2
	Irrelevant or unclear description of the topic.	1
Organization	Text is logically structured and well-organized (orientation and description).	3
	Text is fairly logical, but there are some sequence inconsistencies	2
	No clear structure.	1
Grammar	Minimal grammar errors and easily understandable.	3
	Some grammar errors, but do not hinder understanding.	2
	Many grammar errors that make the text difficult to understand.	1
Vocabulary	Vocabulary is varied and appropriate for the context.	3
	Vocabulary is fairly relevant but lacks variety.	2
	Vocabulary is limited and often inappropriate for the context.	1
Mechanics	Minimal errors in spelling, punctuation, and capitalization.	3
	Some errors in spelling, punctuation, and capitalization.	2
	Many errors that interfere with understanding.	1

Maximum Total Score: 15

Performance Categories:

13–15: Excellent

10–12: Good

7–9: Fair

1–6: Poor

To analyze the data for the second research question, “The effect of using Quizizz in differentiated instruction on students' learning motivation?”, quantitative statistical analysis is employed. Student motivation data obtained through a Likert scale questionnaire, administered before and after the treatment (pretest and posttest), is analyzed using a t-test to compare the mean scores between the experimental and control groups. If the data meets the normality assumption, an independent t-test will be used to identify any significant differences in student motivation between the two groups. Additionally, a paired t-test can be used to compare pretest and posttest motivation scores within the experimental group to determine the extent of motivation improvement following the Quizizz intervention.

CHAPTER IV

This chapter present the research findings which include results and discussion related to the ability to write descriptive text after the application of Quizizz application as a differentiated learning media. In the results section, the data obtained from measuring learners' writing skills described comprehensively, including quantitative and qualitative analyses of the improvement of writing skills. Furthermore, the discussion will explore the relevance of these findings to the underlying theory and its implications for English language learning, especially in writing skills. This chapter also explore the effectiveness of the Quizizz application in supporting technology-based learning, thus providing a clear picture of the contribution of this method to the development of learners' literacy skills.

A. The students ability in writing descriptive texts

In educational research, evaluating the effectiveness of learning methods is a crucial aspect in improving the quality of learning outcomes. One commonly used statistical approach to measure differences before and after an intervention is the paired sample t-test, which allows analysis of significant changes in pre-test and post-test scores

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	FREE TEST EKS	45.00	15	5.345	1.380
	POST TEST EKS	81.00	15	5.732	1.480
Pair 2	FREE TEST KONTROL	43.61	18	8.190	1.930
	POST TEST KONTROL	50.00	18	7.859	1.852

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	FREE TEST EKS & POST TEST EKS	15	.233	.403
Pair 2	FREE TEST KONTROL & POST TEST KONTROL	18	.891	.000

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	FREE TEST EKS - POST TEST EKS	-36.000	6.866	1.773	-39.802	-32.198	-20.307	14	.000
Pair 2	FREE TEST KONTROL - POST TEST KONTROL	-6.389	3.760	.886	-8.258	-4.519	-7.210	17	.000

Based on the In the control class, the average pretest score was 43.61 with a standard deviation of 8.19. After the application of conventional learning methods, the average posttest score increased to 50.00, with a standard deviation of 7.85. This increase shows an improvement in learning outcomes by

6.39 points within the intervention period. This shows that the conventional method still has a positive impact on student learning outcomes even though the increase is moderate.

On the other hand, the experimental class recorded an average pretest score of 45.00 with a standard deviation of 5.35. After Quizziz-based learning, the mean posttest score increased significantly to 81.00 with a standard deviation of 5.73, showing an increase of 36.00 points. This much larger increase shows the effectiveness of gamification-based learning applied to the experimental class.

The statistical significance of the t-test (Sig. 2-tailed) showed significant results in both classes. In the control class, the significance value is 0.000, which means that the improvement in learning outcomes is statistically reliable. Something similar happened in the experimental class, where the significance value was also 0.000, indicating a significant effect of the Quizziz-based learning intervention on student learning outcomes. Thus, this technology-based learning provides substantial results.

The correlation between the pretest and posttest in the control class was recorded to be quite high, at 0.891, with a significance value of 0.000. This indicates a strong linear relationship between the pretest and posttest scores in the control class. In contrast, in the experimental class, the correlation between pretest and posttest was only 0.233, with a significance of 0.403, indicating a weaker relationship. This suggests that learning outcomes in the experimental class were more influenced by the treatment or learning intervention than by the direct relationship between pretest and posttest results. The 95% Confidence Interval range for the control class was -8.258 to -4.519, while for the experimental class it was -39.802 to -32.198. The wider range of intervals in the experimental class indicates greater variation in results but remains consistent in favour of significant improvement. This indicates that the intervention in the experimental class had a wider and more even impact on students than the conventional learning method in the control class.

The higher standard deviation in the control class compared to the experimental class indicates that the learning outcomes in the control class were more varied, while the experimental class recorded more uniform results. This suggests that the Quizziz-based method provides more consistent and equitable learning outcomes among students. With these results, it can be said that technology-based learning creates a more uniform learning experience across all ability levels.

Overall, this data indicates that technology-based learning methods such as Quizziz provide a more significant impact on student learning outcomes than conventional methods applied to the control class. Quizziz-based learning provides advantages not only in improving grades but also in increasing student motivation to engage more actively in learning.

The increase in the average posttest score in the control class by 6.39 points shows that despite using conventional learning methods, students still benefit from the learning process. This is evidence that conventional learning can still improve student learning outcomes even though it is not as effective as gamification-based methods such as Quizziz. Significant results in the control class with a Sig. 2-tailed = 0.000 shows that there is a real improvement in learning outcomes despite using a traditional learning approach.

The experimental class results showed a much greater increase of 36.00 points. This reflects the effectiveness of Quizziz-based learning that not only improves learning outcomes but also motivates students to understand the material deeply. The gamification element in Quizziz is able to create an interesting learning environment and encourage students to actively participate during the learning process.

The lower correlation value in the experimental class compared to the control shows that student learning outcomes in the experimental class are more influenced by the Quizziz-based learning intervention than the linear relationship between pretest and posttest. This intervention had a great impact

in improving students' learning outcomes without relying too much on their initial ability.

The wider range of confidence intervals in the experimental class indicated that the Quizziz-based learning method had a consistent impact across students, both high and lower ability. This reflects that the gamification method is able to create an inclusive and relevant learning experience for all levels of students.

The effectiveness of Quizziz-based learning can be attributed to the gamification element that encourages students' active participation, increasing their engagement during the learning process. This element not only makes learning interesting, but also provides opportunities for students to learn in a more interactive and fun way (Khaldi et al., 2023) .

The more even distribution of learning outcomes in the experimental class shows that the gamification-based learning method not only benefits high ability students but also positively impacts medium and low ability students. This finding suggests that technology-based learning has the potential to create a more equal learning experience.

The findings provide a clear comparison between the control and experimental classes. In the control class, the improvement tended to be moderate, with an average improvement of only 6.39 points, while in the experimental class the improvement was much greater, at 36.00 points. This shows that Quizziz-based learning methods have a more significant impact than conventional learning methods.

The strong linear relationship in the control class, as shown by the correlation of 0.891, indicates that the improvement in learning outcomes is more dependent on students' initial abilities. In contrast, the weaker relationship in the experimental class indicates that the Quizziz-based learning method is able to have a greater impact regardless of students' initial ability.

These results indicate the importance of innovation in learning methods to improve the quality of education. Technology-based methods such as Quizziz are able to create a more inclusive, interactive and engaging learning environment. The practical implications of these findings suggest that gamification-based learning can be adopted more widely to create better learning experiences.

In conclusion, this finding confirms that Quizziz-based learning is more effective in improving student learning outcomes than conventional methods. With significant positive impacts, this technology-based learning can be a solution to improve learning outcomes in various educational contexts. This opens up opportunities to adopt similar innovations on a larger scale.

B. The motivation of the students in learning English through Quizzes with differentiated instruction.

Students' motivation to learn in English plays an important role in improving academic outcomes. The use of Quizizz as a gamification-based interactive media, combined with differentiated instruction, allows for more adaptive and personalised learning. This approach not only increases engagement, but also encourages deeper understanding, thus contributing to improved student motivation and learning outcomes.

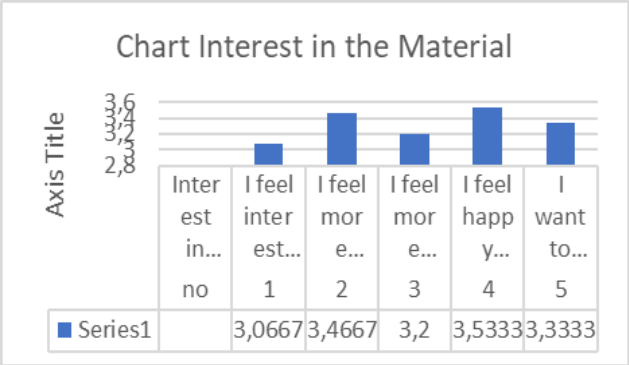


Figure 4.1 interest dimension of the students motivations in learning english using quizziz with deferentiated instructions

Based on the graph presented, the dimension of interest in the material showed a significant increase after learners were given treatment using the Quizziz application. The increase was seen in several indicators measured, including feelings of pleasure, deeper curiosity, and desire to learn more. The mean scores for each indicator ranged from 3.0667 to 3.5333, indicating an overall positive response. This indicates that the use of Quizziz as a learning media contributes to increasing students' motivation to understand the material.

When viewed in more detail, the indicators ‘I feel more interested in the material’ and ‘I feel happy with the material’ obtained the highest mean scores, which were 3.4667 and 3.5333 respectively. This value reflects that the interactive approach offered by Quizziz successfully increases students' emotional engagement with learning. This is in accordance with learning engagement theory which emphasises that emotional components, such as pleasure, are very important in building students' intrinsic motivation to learn. Thus, Quizziz not only provides conceptual understanding but also fosters a positive attitude towards learning.

However, indicators with lower averages, such as ‘Initial interest in the material’ (3.0667), indicate that there were initial variations in students' level of interest before the treatment was conducted. Nonetheless, the use of Quizziz was able to improve students' overall perception of learning. These findings provide important implications for educators that interactive learning technology can be an effective tool to enhance the affective dimension of learning, especially in the context of technology-based learning.

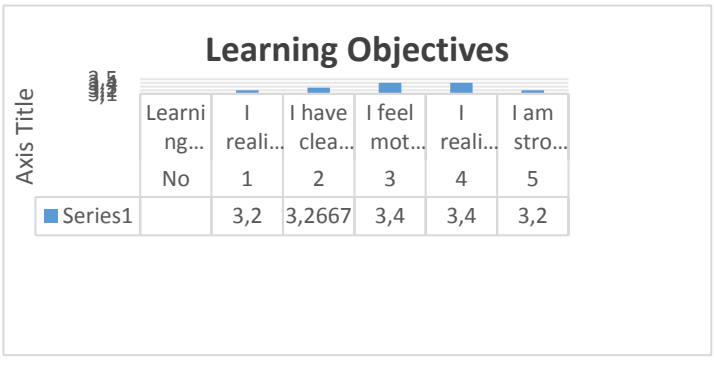


Figure 4.2 Learning Objectives dimension of the students motivations in learning english using quizziz with deferentiated instructions

Graph 2, Based on the data displayed in the graph regarding the progress of the learning objectives dimension, the use of Quizziz in English language learning in the classroom shows a positive influence on students' understanding of learning objectives. This can be seen from the average scores ranging from 3.0 to 3.6 on various indicators. These scores reflect that students are not only able to realise the importance of learning objectives but also show higher motivation to achieve them. Thus, Quizziz acts as a medium that is able to integrate cognitive and affective aspects in learning.

The indicators ‘I realise the importance of learning objectives’ and ‘I feel motivated’ have relatively high scores, which are around 3.4 to 3.6. This indicates that the use of Quizziz successfully motivates students to understand and pursue their learning goals. With the interactive approach offered by Quizziz, students felt more engaged and understood the benefits of the learning undertaken. In addition, this indicator indicates that students are beginning to have a greater awareness of the role of English language learning in supporting the development of their future competencies.

However, the slightly lower score on the indicator ‘I have clear goals in learning’ indicates that there is room for improvement in helping students set more purposeful learning targets. This could be addressed by providing more specific directions regarding learning achievements, such as creating explicit study guides or integrating more detailed feedback in Quizziz. Thus, these results confirm that technology-based approaches such as Quizziz can be an effective tool in improving students' understanding of learning objectives, while still requiring the support of integrated learning strategies.

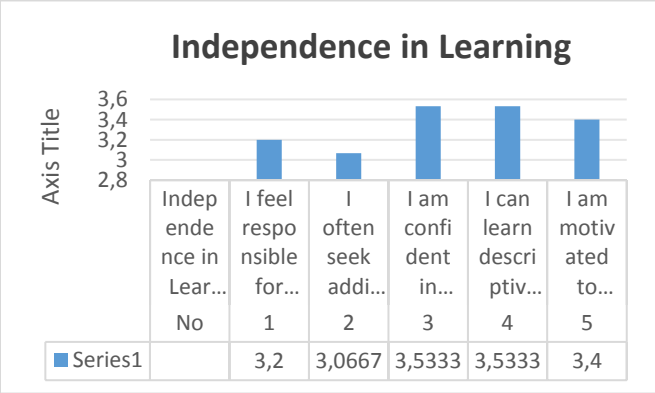


Figure 4.3 independence in Learning dimension of the students motivations in learning english using quizziz with deferentiated instructions

Graph 3 Based on the data displayed in the graph related to the dimension of independence in learning, it can be seen that there is an increase in the aspect of student independence after using Quizziz in English learning. Indicators such as 'I feel confident in learning' and 'I am able to learn descriptive text' show relatively high scores, which are close to or reach 3.5. This shows that Quizziz, as an interactive learning media, successfully encourages students to be more confident in understanding learning materials and improves their ability to learn independently.

In addition, the indicator 'I am motivated to learn' also scored quite well, confirming that the use of Quizziz not only serves as a tool to facilitate learning, but also triggers students' intrinsic motivation. The gamification presented by Quizziz allows students to enjoy the learning process more interestingly, thus increasing their drive to learn actively without dependence on the teacher. With increased motivation, students tend to show a proactive attitude in exploring learning materials, which is one of the important characteristics of learning independence.

However, the indicator 'I often look for additional learning resources' shows a lower score than other indicators. This indicates that although students are motivated and confident, they still tend to rely on resources provided by the teacher or the Quizziz platform itself. To overcome this, intervention is needed

in the form of strengthening learning strategies that encourage students to explore additional learning resources independently. Overall, the use of Quizziz has had a positive impact on student independence in learning English, but optimisation in developing learning exploration is still needed.

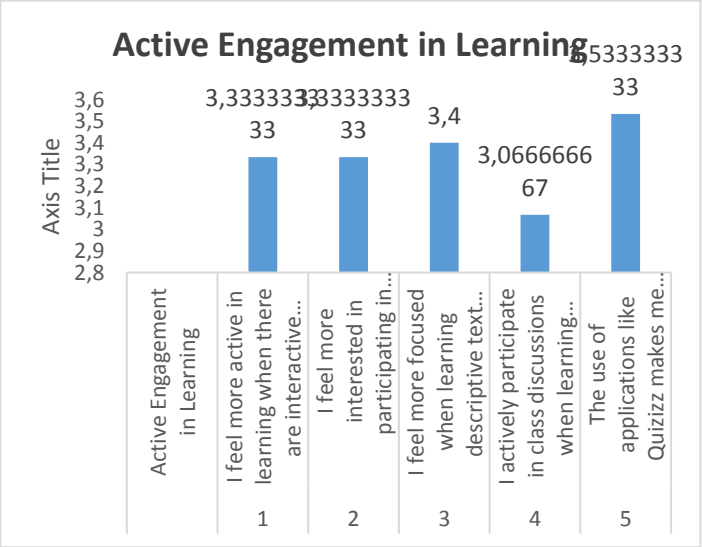


Figure 4.4 Active Engagement in Learning dimension of the students motivations in learning english using quizziz with deferentiated instructions

Graph 4 Based on the data displayed in the graph related to the dimension of active engagement in learning, it can be seen that there was a positive increase after students were given the treatment of using Quizziz in English learning. Indicators such as 'I feel more active in learning' and 'I feel more interested in the material' obtained relatively high scores, close to 3.4. This shows that the use of Quizziz successfully creates an interactive and engaging learning environment that encourages students to be more actively involved in the learning process.

The indicator 'Using the app increased my engagement' scored the highest, indicating that students felt the direct impact of this technology on their level of engagement. Quizziz as a gamified learning platform not only makes learning fun but also provides immediate and personalised feedback. This feature motivates students to stay focused and active during learning. With this

approach, students become more stimulated to think critically, answer questions, and participate in class activities.

However, the indicator ‘I actively participate in learning’ shows a slightly lower score than the other indicators. This could indicate that although students felt more active overall, some students may still need additional encouragement to engage more deeply, for example through strengthening group collaboration or more targeted assignments. Overall, these results underline that the use of Quizziz has made a significant impact on students' active engagement in English learning, however additional optimisation of strategies can be done to ensure even engagement across all students.

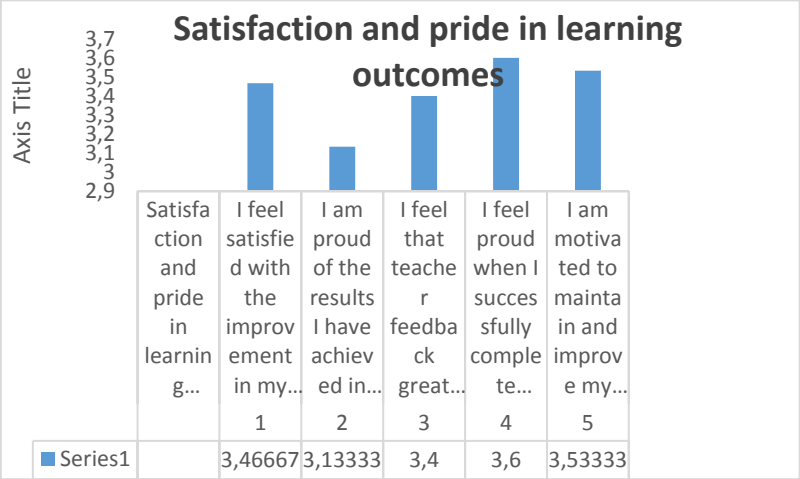


Figure 4.5 Satisfaction and pride in learning dimension of the students motivations in learning english using quizziz with deferentiated instructions

Graph 5 Based on the data displayed in the graph regarding the dimension of satisfaction and pride in learning outcomes, it can be seen that the use of Quizziz in English learning successfully increased students' positive perceptions of their learning process and outcomes. Indicators such as ‘I feel proud when I achieve something’ and ‘I am motivated’ show the highest scores, which are above 3.5. This indicates that students not only feel satisfied with the results achieved, but also have pride in their learning achievements, especially after following the learning process supported by Quizziz.

The indicator ‘I feel satisfied’ also scored quite high, confirming that the use of Quizziz provides a satisfying learning experience for students. The gamification, immediate feedback and challenge aspects of Quizziz most likely contributed to this satisfaction. In addition, the presence of high scores on the indicator ‘I feel that the teacher appreciates my efforts’ indicates that students feel a sense of recognition for their hard work, which contributes to a sense of pride in learning outcomes. This recognition is important as it can encourage students to continue to be motivated in achieving learning goals.

However, the score on the ‘I am proud of my results’ indicator was lower than other indicators, although still in the positive range. This suggests that although Quizziz is able to increase pride in general, some students may feel that their results have not been optimal. Therefore, it is important for teachers to provide additional support, such as reflection strategies on students' achievements and giving realistic targets, so that they can see the value of their efforts. Overall, these data confirm that Quizziz not only improves cognitive aspects but also affective dimensions such as satisfaction and pride, which contribute to a more meaningful learning experience.

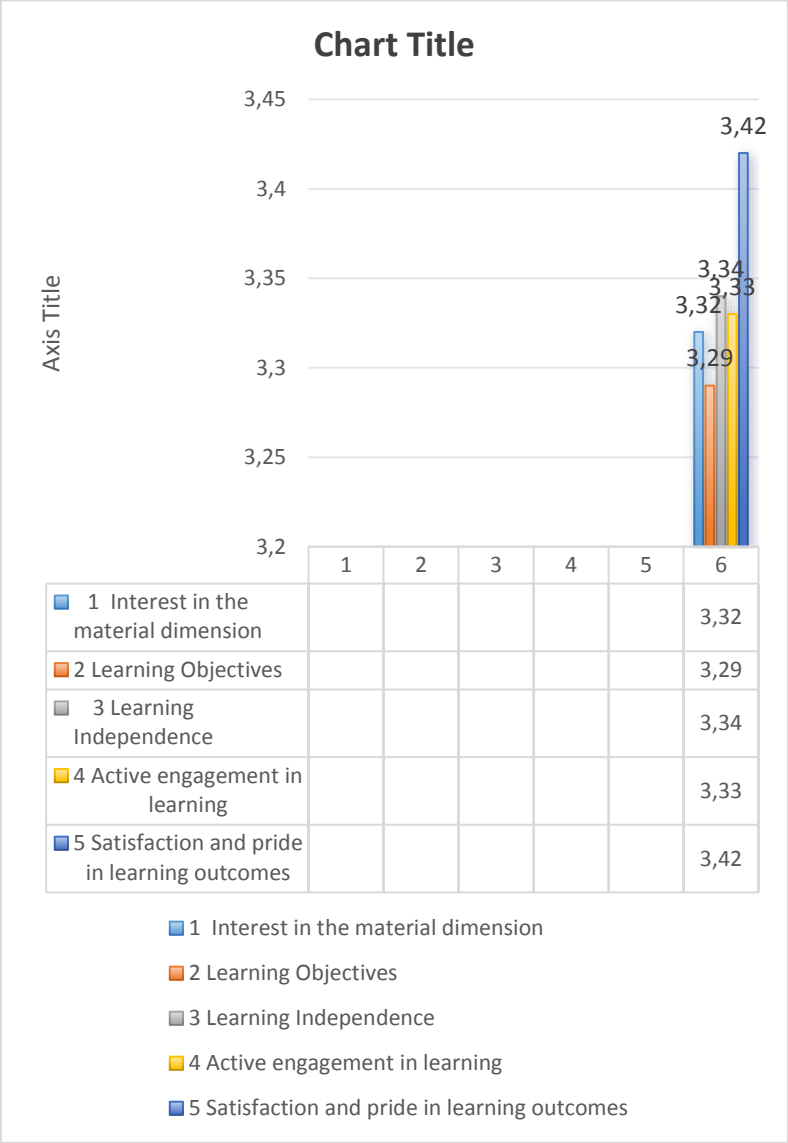


Figure 4.6 All dimension of the students motivations in learning english using quizziz with deferentiated instructions

Graph of all motivations Based on the graph shown, it can be seen that all dimensions of motivation showed a positive improvement after the implementation of Quizziz learning in English language subjects in the classroom. The five dimensions measured, namely interest in the material, learning objectives, learning independence, active engagement, and satisfaction and pride in learning outcomes, all recorded average scores above 3.2. This reflects that Quizziz as a technology-based learning media successfully facilitates increased student motivation in various aspects.

The dimension with the highest score was ‘Satisfaction and Pride in Learning Outcomes,’ which reached an average of more than 3.4. This score indicates that students feel satisfied with their learning outcomes and proud of their achievements. This factor is very important as it reflects the positive emotional impact of learning conducted through Quizziz, especially in encouraging students to continue learning proactively. In addition, the dimensions of ‘Interest in the Material’ and ‘Active Engagement’ also recorded high scores, indicating that learning using Quizziz successfully captured students' attention and increased their participation during the learning process.

Although all dimensions showed a positive trend, the dimensions of ‘Learning Objectives’ and ‘Learning Independence’ had slightly lower scores than the other dimensions. This could indicate that some students still need additional direction to understand clearer learning objectives and develop more independent learning strategies. Therefore, it is important for teachers to integrate Quizziz with learning approaches that provide explicit guidance regarding learning planning and reflection on student achievement. Overall, these results show that Quizziz is not only effective in increasing student motivation, but also supports the development of affective and cognitive aspects in English language learning.

C. Discussion

Here is a scientific discussion comparing research findings on the use of Quizizz in differentiation-based learning with previous research.

The results show that the use of Quizizz significantly improves students' descriptive writing skills and learning motivation compared to conventional methods. In the control class, there was an increase in the average score of 6.39 points, while the experimental class experienced a significant increase of 36.00 points, which confirms the effectiveness of gamification in encouraging learning outcomes. In addition, the dimensions of student motivation—

including interest, understanding of goals, independence, active involvement, and satisfaction and pride—showed positive improvements, with the highest scores in the aspects of satisfaction and pride. These findings confirm that technology-based learning not only improves academic outcomes, but also builds intrinsic motivation and active student participation.

This study shows that the integration of Quizizz in differentiation-based learning has a positive impact on students' learning motivation, especially in increasing their involvement in learning to write descriptive texts. These findings are in line with previous research (Dewi et al., 2022; Ramadhani & Ardi, 2024) which also confirms that gamification technology can increase students' intrinsic motivation through the mechanisms of direct feedback, healthy competition, and personalisation of learning. The similarity found between this study and previous studies is that the use of Quizizz allows for more interactive learning that is responsive to students' needs. However, this study offers a more specific approach by highlighting how technology-based differentiation not only adjusts materials and methods, but also adapts evaluation and feedback to support the individual development of students.

The main difference between this study and previous studies lies in the way learning differentiation is implemented. While previous studies have emphasised the use of Quizizz as a formative evaluation tool or as an interactive exercise medium, this study highlights how Quizizz's adaptive features can be aligned with the principles of differentiated learning put forward by Tomlinson (2014). By applying question levels tailored to students‘ abilities and more individualised feedback features, this study proves that a technology-based approach can be more effective in supporting learning motivation through more comprehensive differentiation. These findings also support the learning motivation theory of Deci & Ryan (2000), which emphasises that students’ intrinsic motivation can be enhanced by providing autonomy, a sense of competence, and a better connection to learning materials.

The results of this study have significant practical implications for English teachers, especially in implementing differentiation-based learning strategies with technological support. These findings confirm that the use of the Quizizz application not only increases students' motivation to learn, but also enables teachers to be more effective in adapting learning materials according to the individual needs of students. With the gamification features and direct feedback provided by Quizizz, teachers can create a more interactive and adaptive learning environment, so that students are more motivated to actively participate in the learning process. In addition, the flexibility offered by this application allows teachers to design more dynamic and data-based formative evaluations, so that they can identify students' learning difficulties more accurately and provide appropriate interventions. Thus, the integration of Quizizz in differentiation-based learning can be an effective strategy for educators to increase student engagement and optimise learning outcomes in English language teaching.

Theoretically, this study enriches research in the field of English language learning by emphasising the relevance of the learning differentiation theory (Tomlinson, 2014) and the learning motivation theory (Deci & Ryan, 2000) in the context of the use of educational technology. The results of this study show that the integration of the Quizizz application in differentiation-based learning can increase students‘ intrinsic motivation by providing a more personal learning experience, in accordance with the principles of autonomy, competence, and connectedness that form the basis of motivation theory. In addition, these findings reinforce the concept that differentiation in language teaching can be done not only through a variety of methods and materials, but also through adaptive technology that allows teachers to adjust the level of difficulty and form of assessment based on students’ needs. Thus, this study contributes to the development of a technology-based learning model that is more responsive to individual differences among students, as well as broadening the theoretical perspective on the effectiveness of gamification in increasing engagement and learning motivation in English language teaching.

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

A. Conclusion

This study shows that the use of Quizizz has a significant positive impact on students' ability to write descriptive texts as well as their learning motivation. In terms of writing ability, students who learned using Quizizz showed a significant improvement in writing quality, including in the aspects of structure, vocabulary, and clarity of content, compared to students who learned with conventional methods. In addition, students' learning motivation also improved overall, especially on the dimensions of active engagement, independence in learning, and satisfaction with learning outcomes. This shows that the gamification-based approach and differentiated learning through Quizizz are able to create a more interactive, relevant and inclusive learning experience.

However, this study has some weaknesses. One of them is the limited scope of the sample, which may not fully represent the wider population. In addition, technical constraints such as access to devices and internet connectivity may also affect the implementation of this technology-based learning. This study also only focuses on one type of text, which is descriptive, so generalisation of the results to other learning contexts needs to be done with caution. In the future, more in-depth research is needed with a wider scope and focus on various text types or other language skills.

B. Suggestions

For teachers, the application of Quizizz as an interactive learning media can be an innovative solution in improving student motivation and learning outcomes. Teachers are advised to utilise the gamification features in Quizizz, such as providing immediate feedback and competition elements, to create a more interesting and fun learning atmosphere. In addition, teachers can

integrate Quizizz with other learning methods to create a more varied and differentiated learning experience according to student needs. For students, the use of Quizizz is expected to increase motivation for independent learning, encourage active involvement during the learning process, and improve understanding of the material through interesting interactive exercises.

Curriculum developers are advised to adopt technology-based approaches such as Quizizz in learning design, especially for subjects that require active student engagement, such as English. The designed curriculum should facilitate differentiated learning by accommodating students' needs based on their ability levels. In addition, curriculum developers can develop policies that encourage the wider utilisation of educational technology, including training for teachers to improve their competence in utilising technology-based learning media.

For future researchers, further research can be focused on exploring the effect of Quizizz or other technology-based media on various types of language skills, such as speaking, reading, or listening. In addition, studies with a wider and varied sample coverage may provide more representative results to support the generalisation of findings. In-depth research is also needed to qualitatively explore students‘ and teachers’ experiences of utilising learning technology, so as to provide new insights into the optimal ways of using technology in various educational contexts.

REFERENCES

Afika, N., Abubakar, M., & Nawir, M. S. (2022). The Effect Of Using Clustering Technique On The Students'Writing Skills In Descriptive Text At Senior High School 10 Makassar. English Language, Linguistics, and Culture International Journal, 2(1), 26–41.

Alfiyah, S., Sunyono, S., & Andra, D. (2023). Development of Quizz-Based Creative Thinking Skill Assessment in Thematic Learning of Elementary School Class V Students. International Journal of Current Science Research and Review, 6(06), 3080–3090.

Anjeli, D. P. (2023). Using Quizziz As a Tool For Online Formative Assessment In Students'Reading Comprehension In The Second Grade Of Junior High School.

Arista, K. D. (2021). The Use of Mind Map Technique to Improve Study Group Students' Skill in Writing Descriptive Text. Journal of Educational Study, 1(1), 1–11.

Baresh, E. F. (2022). Developing Libyan Undergraduates'Writing Skills Through Reflective Journaling: a Critical Literature Review. Journal of English Language Teaching and Learning, 3(1), 27–35.

Dewi, N. K., Utami, I. G. L., & Santosa, M. (2022). Development of Digital Supplementary Material Using Quizizz-Based Learning Media in Intensive English Course. JINOTEP (Jurnal Inov. Dan Teknol. Pembelajaran) Kaji. Dan Ris. Dalam Teknol. Pembelajaran, 9(1), 14–22.

Din, M. (2020). Evaluating university students' critical thinking ability as reflected in their critical reading skill: A study at bachelor level in Pakistan. Thinking Skills and Creativity, 35, 100627.

Fitria, T. N. (2023). Artificial intelligence (AI) technology in OpenAI ChatGPT application: A review of ChatGPT in writing English essay. ELT Forum: Journal of English Language Teaching, 12(1), 44–58.

Ginting, D. (2021). Student engagement and factors affecting active learning in English language teaching. Voices of English Language Education Society, 5(2), 215–228.

Goldfarb, Y., Golan, O., & Gal, E. (2023). a self-determination theory approach to work motivation of autistic adults: a qualitative exploratory study. Journal of Autism and Developmental Disorders, 53(4), 1529–1542.

Hadi, M. S., Izzah, L., & Paulia, Q. (2021). Teaching writing through Canva application. Journal of Languages and Language Teaching, 9(2), 228–235.

Handayani, E. T., & Aminatun, D. (2020). Students'Point Of View On The Use Of Whatsapp Group To Elevate Writing Ability. Journal of English Language Teaching and Learning, 1(2), 31–37.

Hartono, R., & Syafri, F. (2024). The Implementation of Quizizz Game toward Students' and Teacher's Motivation in English Classes at Kampung Inggris Semarang. English Education Journal, 14(1), 37–48.

Herawati, N., & Erawati, T. (2023). Unraveling Student Insights: Quizizz In English Learning At a Vocational High School In Cirebon. Academic Journal Perspective: Education, Language, and Literature, 11(2), 142–156.

Huang, Y., & Jun Zhang, L. (2020). Does a Process-Genre Approach Help Improve Students' Argumentative Writing In English As a Foreign Language? Findings From An Intervention Study. Reading & Writing Quarterly, 36(4), 339–364.

Hyland, K. (2022). English For Specific Purposes: What Is It And Where Is It Taking Us? Esp Today, 10(2), 202–220.

Inayati, N., & Waloyo, A. A. (2022). The Influence Of Quizziz-Online Gamification On Learning Engagement And Outcomes In Online English Language Teaching. Journal on English as a Foreign Language, 12(2), 249–271.

Ismayanti, E., & Kholiq, A. (2020). An Analysis Of Students Difficulties In Writing Descriptive Text. E-Link Journal, 7(1), 10–20.

Kadri, S. F. B., & Hayroman, N. F. B. (2021). Enhancing Students'Interest In Teaching Mathematics By Using Quizizz Application During Movement Control Order (MCO). Proceedings of International Conference on Special Education, 4.

Kang, S. P., & Recard, M. (2023). Investigating The Implementation Of Gamification Approach To Enhance Students Learning Engagement. Journey: Journal of English Language and Pedagogy, 6(2), 295–307.

Karafkan, M. A., Ansarin, A.-A., & Hadidi, Y. (2022). Depth and Breadth of Vocabulary Knowledge as Predictors of Narrative, Descriptive and Argumentative Writing. Journal of Modern Research in English Language Studies, 2.

Kholid, B., Rahman, A., & Irawan, L. A. (2024). Implementing Diagnostic Assessment in Designing Differentiated Learning for English Language Learning at the Junior High Schools. Journal of Language and Literature Studies, 4(2), 445–458.

Khalid, A., Bouzidi, R., & Nader, F. (2023). Gamification of e-learning in higher education: a systematic literature review. In Smart Learning

Environments (Vol. 10, Issue 1). Springer Nature. https://doi.org/10.1186/s40561-023-00227-z

Krupić, D., & Corr, P. J. (2020). How reinforcement sensitivity theory relates to self-determination theory. Personality and Individual Differences, 155, 109705.

Matra, S. D., & Dewi, S. N. (2024). Utilizing Quizizz as Fun Learning Medium in Teaching Reading: A Descriptive Qualitative Strategy. English Language and Literature International Conference (ELLiC) Proceedings, 6, 250–258.

Mohd, C. K., Nuraini, C. K., Mohamad, S. N. M., Sulaiman, H., Shahbodin, F., & Rahim, N. (2023). A review of gamification tools to boost students' motivation and engagement. Journal of Theoretical and Applied Information Technology, 101(7), 2771–2782.

Mohseni, F., Seifoori, Z., & Ahangari, S. (2020). The impact of metacognitive strategy training and critical thinking awareness-raising on reading comprehension. Cogent Education, 7(1), 1720946.

Nasihah, M., & Senta, A. N. (2022). Revealing the challenges and practical ways in teaching writing online. Journal of English for Academic and Specific Purposes (JEASP), 5(1).

Ogundeji, O. M. (n.d.). Vygotsky and Tomlinson's Perspective on Differentiation Instruction: Implication for Science Education Classroom. Psychology in Theory and Practice, 99.

Onyishi, C. N., & Sefotho, M. M. (2020). Teachers' Perspectives on the Use of Differentiated Instruction in Inclusive Classrooms: Implication for Teacher Education. International Journal of Higher Education, 9(6), 136–150.

Osae, A. C. (2024). Differentiated Instruction in Second Language Teaching: Educators' perspectices, practices and challenges in Rwanda. Unicaf University in Zambia. Unpublished Doctoral Thesis.

Osei, P. C., & Bjorklund, D. F. (2024). Motivating the Learning Process: Integrating Self-Determination Theory Into a Dynamical Systems Framework. Educational Psychology Review, 36(3), 89.

Pedler, M., Hudson, S., & Yeigh, T. (2020). The teachers' role in student engagement: A review. Australian Journal of Teacher Education (Online), 45(3), 48–62.

Ridhwan, M. (2023). Transformation of Assessment in Teaching English at Higher Education: Leveraging Quizizz to Enhance Student Participation and Motivation. Edukasi, 11(1), 44–51.

Roberts, J. L., & Inman, T. F. (2023). Strategies for differentiating instruction: Best practices for the classroom. Routledge.

Saifudin, A., & Setiawan, S. (2020). The implementation of task based learning in teaching writing descriptive text to the junior high school. Linguistic, English Education and Art (LEEA) Journal, 4(1), 109–125.

Siregar, T. (n.d.-a). Enhancing High School Students' Mathematical Critical Thinking and Self-Confidence Through Problem-Based Learning Model Assisted by Quizizz.

Siregar, T. (n.d.-b). Enhancing High School Students' Mathematical Critical Thinking and Self-Confidence Through Problem-Based Learning Model Assisted by Quizizz.

Suastra, I., & Menggo, S. (2020). Empowering Students' Writing Skill through Performance Assessment. International Journal of Language Education, 4(3), 432–441.

Subramainan, L., & Mahmoud, M. A. (2020). A systematic review on students' engagement in classroom: Indicators, challenges and computational techniques. International Journal of Advanced Computer Science and Applications, 11(1), 105–115.

Sundari, H., & Febriyanti, R. H. (2021). The analysis of Indonesian EFL argumentative writing using Toulmin's model: The structure and struggles from the learners. Scope: Journal of English Language Teaching, 5(2), 67–78.

Tao, Y., Meng, Y., Gao, Z., & Yang, X. (2022). Perceived teacher support, student engagement, and academic achievement: A meta-analysis. Educational Psychology, 42(4), 401–420.

Tomlinson, C. A. (2014). The differentiated classroom: Responding to the needs of all learners. Ascd.

Uluelang, K., & Akib, R. (2020). The Studentsâ€TM Perception of Teacher Roles and Rapport in Teaching Writing. Qalam: Jurnal Ilmu Kependidikan, 9(1), 1–5.

Wen, Y. S. (2023). Strategies for differentiated instruction in the primary school English classroom in China.

Zhang, Z., & Huang, X. (2024). Exploring the impact of the adaptive gamified assessment on learners in blended learning. Education and Information Technologies, 1–21.