

CHAPTER I

INTRODUCTION

A. Research Background

English has become an important international language used in communication, education, science, technology, and global interaction. In English as a Foreign Language (EFL) contexts, students are expected to develop four fundamental language skills: listening, speaking, reading, and writing. The development of these skills requires not only vocabulary knowledge but also grammatical knowledge. Grammar provides learners with knowledge of how linguistic forms are organized and used to construct meaningful expressions. Larsen-Freeman (2003) further views grammar as more than a collection of rules, emphasizing the ability to use grammatical structures to create and communicate meaning. Therefore, grammar constitutes an important component of English learning because it supports learners in understanding and producing language appropriately in different communicative contexts.

One grammatical area that requires attention is modal auxiliaries. Modal auxiliaries are used to express meanings and attitudes related to situations, including ability, permission, possibility, obligation, necessity, and certainty. Leech (2004) explains that modal verbs are associated with modality and the expression of attitudes or judgments toward situations. Similarly, Aarts (2011) discusses modal verbs such as *can*, *could*, *may*, *might*, *must*, *should*, and *would* as grammatical forms that contribute to the expression of different meanings and communicative intentions. In the present study, particular attention is given to *can*, *may*, and *must*, which are used to express ability, permission, obligation, and possibility. Understanding these forms therefore requires learners to recognize both their grammatical patterns and the meanings they convey in particular contexts.

Learning modal auxiliaries can be challenging because the same modal form may express different meanings depending on context. For example, *can* may express ability in “She can swim” but permission in “Can I use your phone?” Similarly, *may* can express permission or possibility, while *must* can express obligation or a strong conclusion based on available information. Such variation requires learners to understand not only the form of modal auxiliaries but also their semantic and communicative functions. Putri and Natsir (2025), in their corpus-based study of Indonesian EFL learners, identified persistent difficulties in the acquisition and use of English modal verbs, including differences in frequency, semantic distribution, and error patterns. Their findings indicate that modal verbs remain a complex area of English grammar for Indonesian EFL learners.

The difficulty of learning grammar is not limited to students’ cognitive understanding of grammatical forms. Students’ motivation is also an important factor in the learning process because it influences their willingness to participate, effort, persistence, and involvement in learning activities. Motivation concerns the energy, direction, and persistence underlying human behavior and is particularly relevant when learners are required to engage with challenging learning tasks. In language learning, students who are more motivated are generally more willing to participate in learning activities, invest effort, and persist when they encounter difficulties. Therefore, students’ motivation is an important consideration in creating learning environments that encourage sustained involvement in English learning.

One instructional approach that may provide a more engaging learning environment is gamification. Deterding et al. (2011) define gamification as the use of game design elements in non-game contexts. In educational settings, gamification may involve elements such as points, rankings, competition, challenges, feedback, and time limits. These elements can change how students experience learning activities by providing clear tasks, performance information, and opportunities for

active participation. However, gamification should not be assumed to increase motivation automatically because its effects depend on the specific game elements used, the instructional context, and how learners experience those elements.

Empirical evidence indicates that gamification can have positive motivational effects, although the magnitude of these effects may vary. Sailer and Homner (2020), through a meta-analysis of gamification in learning, reported a small but statistically significant positive effect of gamification on motivational learning outcomes. Their findings suggest that gamification can contribute to students' motivational experiences when appropriately integrated into learning activities. Similarly, Sailer and Sailer (2021) examined gamified in-class activities in a flipped classroom context and found positive effects on students' intrinsic motivation and social relatedness, although not all psychological needs were affected in the same way. These findings are relevant to the present study because they indicate that the motivational value of gamification should be considered in relation to the specific instructional design rather than assumed to result from the presence of game elements alone.

One digital platform that incorporates gamified quiz features is ZepQuiz application. ZepQuiz application provides an interactive environment in which teachers can present quiz-based learning activities and students can respond to questions in real time. The platform can incorporate game-oriented features such as points, rankings, time challenges, immediate feedback, and competitive activities. Such features may provide students with opportunities to participate actively and receive information about their performance during learning activities. From the perspective of SDT, immediate feedback may potentially contribute to students' perceptions of competence, while active participation and interaction may contribute to motivational experiences. Nevertheless, these relationships should be interpreted as theoretical possibilities because the present study does not directly measure autonomy, competence, and relatedness as separate variables.

Previous research has provided initial evidence regarding the use of ZepQuiz application in educational contexts. Ramadhani and Sya (2025) examined a ZepQuiz-based teaching module through qualitative content analysis and focused on the structure and organization of game-based learning materials. Their study provides evidence that ZepQuiz application can be incorporated into interactive learning materials, although it did not directly examine students' motivation through a quasi-experimental design. Widyaningrum et al. (2025) investigated the use of Zep Quiz to improve students' learning motivation in Informatics at the junior high school level. Their study employed Classroom Action Research involving 30 seventh-grade students and used a motivation questionnaire to examine changes across two cycles. The study reported improvement in students' motivation after the implementation of ZepQuiz application. However, the study was conducted in Informatics rather than English and did not compare ZepQuiz application with a non-gamified instructional condition. These differences indicate that further research is needed to examine ZepQuiz application in English language learning and under a comparative experimental condition.

Research on gamified learning in EFL has also examined other digital platforms. Zhou (2024), for example, investigated digital game-based learning among Chinese EFL learners and reported positive motivational experiences, including enjoyment and aspects of intrinsic motivation. However, the study focused on digital game-based learning in general rather than specifically on ZepQuiz application or English grammar. Therefore, its findings provide broader support for examining gamified learning in EFL but cannot be interpreted as direct evidence of the effectiveness of ZepQuiz application for teaching modal auxiliaries. This distinction is important because the effects of a digital learning platform may vary according to the platform, instructional content, learning objectives, and learner characteristics.

The existing literature therefore indicates several areas that require further investigation. First, previous studies of ZepQuiz application have examined instructional materials, reading, Informatics, and broader learning contexts, but research

specifically examining ZepQuiz application in English grammar learning remains limited. Second, previous research on gamified learning has frequently examined learning achievement, language skills, engagement, or general motivational experiences rather than students' motivation in learning a specific grammatical topic. Third, limited research has examined the use of ZepQuiz application to teach modal auxiliaries among junior secondary EFL learners while comparing it with a non-gamified instructional condition. Therefore, the present study addresses this gap by investigating the effect of ZepQuiz application on students' motivation in learning modal auxiliaries among eighth-grade students.

Based on the rationale above, the present study focuses on the use of ZepQuiz application as a gamified digital instructional medium for teaching modal auxiliaries. The experimental group receives grammar instruction using ZepQuiz application, while the control group receives instruction using non-gamified instructional media. Students' motivation is measured before and after the instructional treatment. Through this comparison, the study aims to determine the level of students' motivation in each group and whether there is a significant difference in motivation between students who learn modal auxiliaries using ZepQuiz application and those who learn through non-gamified instructional media. The study is therefore entitled "The Effect of ZepQuiz Application on Students' Motivation in Learning Modal Auxiliaries."

B. Research Question

Based on this rationale, the research questions of this study are formulated as follows:

1. What is the level of students' motivation in learning modal auxiliaries taught using the ZepQuiz application?
2. What is the level of students' motivation in learning modal auxiliaries taught with non-gamified teaching media?

3. How is significant the difference in students' motivation in learning modal auxiliaries between students taught using the ZepQuiz application and those taught using non-gamified instructional media?

C. Research Purposes

Based on this purpose, the objectives of the study are as follows:

1. To examine the level of students' motivation in learning modal auxiliaries taught using the ZepQuiz application.
2. To examine the level of students' motivation in learning modal auxiliaries taught with non-gamified teaching media.
3. To determine whether there is a significant difference in students' motivation in learning modal auxiliaries between students taught using the ZepQuiz application and those taught using non-gamified instructional media.

D. Research Significance

This study is expected to provide theoretical and practical contributions to English Language Education, particularly in relation to students' motivation, grammar instruction, and gamified digital learning.

1. Theoretical Significance

Theoretically, this study is expected to contribute to the discussion of students' motivation in English grammar learning by examining the use of a gamified digital quiz application in teaching modal auxiliaries. The study applies Self-Determination Theory as a theoretical perspective for understanding motivation and considers gamification as an instructional approach that may influence students' motivational experiences. The findings may therefore provide additional empirical evidence concerning the relationship between gamified instructional media and students' motivation in an EFL grammar-learning context.

2. Practical Significant

Practically, the results of this study are expected to be beneficial for several parties involved in English language teaching and learning, as outlined below:

- 1) For Teachers: The findings may provide English teachers with information about the potential use of ZepQuiz application as a gamified instructional medium for teaching grammar, particularly modal auxiliaries. Teachers may consider interactive quizzes, immediate feedback, points, rankings, and time-based activities when designing grammar-learning activities. The findings may also assist teachers in considering whether gamified digital media are appropriate for supporting students' participation and motivation in grammar learning.
- 2) For Students: The use of ZepQuiz application may provide students with an alternative learning environment in which grammar practice is presented through interactive and game-oriented activities. Immediate feedback may help students recognize their performance, while interactive quiz activities may provide opportunities for more active participation in learning modal auxiliaries.
- 3) For Future Researchers: The findings may serve as a reference for future researchers interested in gamification, educational technology, motivation, and English grammar learning. Future studies may investigate ZepQuiz application in different language skills, grammatical topics, educational levels, or learner populations, or examine other outcomes such as learning achievement, engagement, satisfaction, or technology acceptance.

E. Research Scope

This study focuses on examining the effect of the ZepQuiz application on students' motivation in learning English grammar, particularly modal auxiliaries. The study employs a quantitative approach with a quasi-experimental design involving an experimental group and a control group.

The research was conducted at SMPN 1 Majalaya during the second semester of the academic year. The participants are eighth-grade students from two intact classes. The experimental class 8C, consists of 36 enrolled students, while the control class 8D, consists of 34 enrolled students, resulting in a total of 70 students initially involved in the two classes. However, not all students were able to complete both the pre-test and post-test because of absence during the data collection process. Therefore, only students who provided the required pre-test and post-test data were included in the final analysis. The final analyzed sample 8C, consists of 31 students from the experimental class and 28 students from 8D the control class, resulting in a total of 59 students. The experimental group receives English grammar instruction on modal auxiliaries using the ZepQuiz application, whereas the control group receives instruction using non-gamified instructional media. The instructional content is limited to modal auxiliaries, particularly can, may, and must, which are taught in relation to meanings such as ability, permission, obligation, and possibility.

Students' motivation is measured using a motivation questionnaire administered before and after the instructional treatment. The data obtained from students who completed the required measurements are analyzed quantitatively using statistical procedures through SPSS. The study focuses on students' motivation as the dependent variable and does not examine other learning outcomes such as grammar achievement, language skills, or long-term retention. The study is limited to the use of ZepQuiz application as the gamified instructional medium and does not compare ZepQuiz application with other gamified digital quiz platforms. It also does not examine teachers' perceptions, students' technological readiness, or institutional factors related to digital learning. Since the study uses intact classes and the final analysis includes only students with complete pre-test and post-test data, the findings are interpreted within the context of the participating students and are not intended to represent all eighth-grade EFL learners.

F. Conceptual Framework

Gamification refers to the incorporation of game design elements into non-game contexts (Deterding et al., 2011). In educational settings, gamified learning may incorporate elements such as points, competition, rankings, challenges, time limits, and immediate feedback. Previous research indicates that gamification can have positive effects on motivational outcomes, although these effects depend on the design and implementation of the learning environment (Sailer & Homner, 2020; Sailer & Sailer, 2021).

The theoretical perspective underlying the present study is Self-Determination Theory. SDT explains motivation in relation to three basic psychological needs: autonomy, competence, and relatedness. In a learning environment, students may experience competence when they receive feedback and recognize their progress, autonomy when they experience active involvement and meaningful participation, and relatedness when they experience positive social interaction. However, the present study does not directly measure these three needs as separate variables. Therefore, they function as a theoretical explanation of how a gamified learning environment may influence students' motivation rather than as mediating variables tested in the study.

In the present study, ZepQuiz application serves as the independent variable, while students' motivation in learning modal auxiliaries serves as the dependent variable. ZepQuiz application provides interactive quiz activities and game-oriented features such as points, rankings, competition, time limits, and immediate feedback. These features may create a different learning experience from non-gamified instructional media. The control group receives instruction using non-gamified instructional media while maintaining the same general grammatical learning objectives.

Thus, the conceptual relationship in this study can be represented as follows:

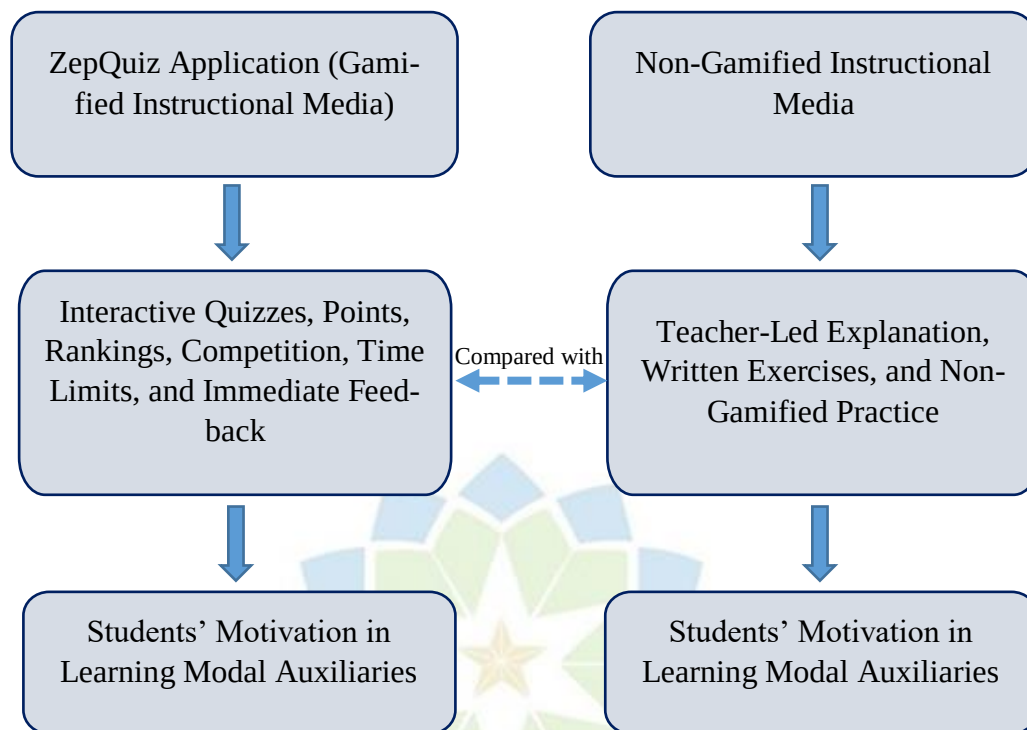


Figure 1. 1 Conceptual Framework

As illustrated in Figure 1.1, the conceptual framework of this study begins with the context of English as a Foreign Language (EFL) learning, in which grammar is an important component of language learning. Modal auxiliaries are one area of English grammar that requires students to understand both grammatical forms and the meanings they convey, including ability, permission, obligation, and possibility. Previous research has indicated that Indonesian EFL learners may experience difficulties in acquiring and using English modal verbs, particularly in relation to their semantic and functional use (Putri & Natsir, 2025). Therefore, an appropriate instructional approach is needed to support students in learning modal auxiliaries.

One instructional approach that may provide a more interactive learning environment is gamification. Gamification involves the use of game design elements in non-game contexts and may include points, competition, rankings, challenges,

time limits, and immediate feedback (Deterding et al., 2011; Dicheva et al., 2015). Previous research has indicated that gamification can have positive effects on motivational learning outcomes, although its effects may depend on how the game elements are integrated into the instructional process (Sailer & Homner, 2020). In the present study, ZepQuiz application is positioned as a gamified instructional medium that provides interactive quizzes, points, rankings, competition, time limits, and immediate feedback. These features are expected to provide students with a more interactive learning experience and encourage their active participation in grammar-learning activities.

The framework further positions students' motivation as the dependent variable. Students' motivation in this study refers to their willingness and psychological involvement in learning modal auxiliaries, which can be reflected through their interest, engagement, effort, and persistence in learning activities. From the perspective of Self-Determination Theory, motivational experiences may be influenced by the extent to which the learning environment provides opportunities for active involvement, feedback, and meaningful interaction (Ryan & Deci, 2017). However, autonomy, competence, and relatedness are used in this study as a theoretical perspective for understanding motivation and are not examined as separate mediating variables.

In the experimental condition, students receive grammar instruction using the ZepQuiz application. The application provides interactive quiz activities and game-oriented elements, including points, rankings, competition, time limits, and immediate feedback. In contrast, the control group receives instruction using non-gamified instructional media, including teacher-led explanations, written exercises, and non-gamified practice activities. Both groups receive instruction on the same general topic of modal auxiliaries, while the instructional medium differs between the two conditions.

Based on this framework, the use of ZepQuiz application is expected to produce a different motivational learning experience from non-gamified instructional

media. The experimental group is expected to demonstrate a different level of motivation after receiving instruction through ZepQuiz application, while the control group receives instruction without gamified elements. Therefore, the study compares students' motivation between the two instructional conditions to determine whether there is a significant difference in students' motivation in learning modal auxiliaries. The conceptual relationship can consequently be summarized as the comparison between ZepQuiz application as a gamified instructional medium and non-gamified instructional media, with students' motivation in learning modal auxiliaries as the dependent variable.

G. Research Hypothesis

Based on the research questions and conceptual framework, the hypotheses of this study are formulated as follows.

1. Null Hypothesis (H_0): There is no significant difference in students' motivation in learning modal auxiliaries between students taught using the ZepQuiz application and those taught using non-gamified instructional media.
2. Alternative Hypothesis (H_1): There is a significant difference in students' motivation in learning modal auxiliaries between students taught using the ZepQuiz application and those taught using non-gamified instructional media.

H. Previous Studies

Previous studies are reviewed to establish the empirical foundation of the present study and to identify the research gap concerning ZepQuiz application, gamification, and students' motivation in English learning.

Research on application has begun to examine, Ramadhani and Sya (2025) examined a game-based learning teaching module using ZepQuiz application through qualitative content analysis. Their study focused on the organization of instructional content and learning activities in a ZepQuiz-based teaching module. The study provides evidence that ZepQuiz application can be incorporated into interactive instructional materials. However, the study did not directly examine

students' motivation through a quasi-experimental comparison. Therefore, its findings provide contextual evidence regarding the use of ZepQuiz application but do not establish its effect on students' motivation.

In a related study, Widyaningrum et al. (2025) investigated the use of Zep Quiz application to improve students' learning motivation in Informatics at the junior high school level. The study involved 30 seventh-grade students and employed Classroom Action Research based on the Kemmis and McTaggart model. Data were collected using a learning motivation questionnaire and analyzed quantitatively using descriptive statistics. The researchers reported improvement in students' motivation after the implementation of ZepQuiz application. However, the study was conducted in Informatics rather than English language learning and did not employ a comparison group using non-gamified instructional media. Therefore, the present study extends this line of research to an EFL grammar context and a comparative quasi-experimental design.

Similarly, Labibah (2024) examined the use of gamification in English learning with the aim of increasing students' motivation and engagement. The study employed a qualitative approach using classroom observation, interviews, and documentation. The findings indicated positive changes in classroom atmosphere, student motivation, and participation following the use of gamification. However, because the study used a qualitative approach, it did not statistically test differences between a gamified and non-gamified instructional condition. The present study therefore provides a different methodological perspective by using a quantitative quasi-experimental design.

Another study by, Zhou (2024) examined digital game-based learning among Chinese EFL learners. The study reported positive effects on learners' enjoyment and aspects of motivational experience in an EFL context. The study is relevant because it provides empirical evidence concerning the relationship between digital game-based learning and learner motivation. However, the research focused on digital game-based learning rather than specifically on ZepQuiz application and

did not focus on grammar learning or modal auxiliaries. The present study therefore narrows the focus to a specific gamified quiz platform and a specific grammatical topic.

Meanwhile, Sailer and Sailer (2021) examined gamified in-class activities in a flipped classroom context and compared gamified activities with non-gamified learning activities. Their findings indicated positive effects on students' intrinsic motivation and social relatedness, although the effects were not identical across all psychological needs. This study is relevant to the present research because it demonstrates that the motivational effects of gamification can be examined through a comparison between gamified and non-gamified learning conditions.

Based on the previous studies, several research gaps can be identified. First, research specifically examining ZepQuiz application in English grammar learning remains limited. Second, existing ZepQuiz application studies have focused on contexts such as Informatics, reading, or instructional materials rather than modal auxiliaries as a specific grammar topic. Third, studies investigating motivation through gamified learning have not sufficiently examined ZepQuiz application in a quantitative quasi-experimental comparison with non-gamified instructional media. Therefore, the present study addresses these gaps by examining the effect of ZepQuiz application on students' motivation in learning modal auxiliaries among eighth-grade EFL learners.

The novelty of the present study lies in the combination of three specific elements: ZepQuiz application as the gamified instructional medium, students' motivation as the dependent variable, and modal auxiliaries as the grammatical learning topic. In addition, the study compares the ZepQuiz application treatment with non-gamified instructional media using a quasi-experimental design. Through this design, the study seeks to provide empirical evidence concerning whether the use of ZepQuiz application is associated with a significant difference in students' motivation in learning modal auxiliaries.