



The Effectiveness of Wayground Application in Enhancing Grammar Mastery of Students with Different Motivation

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Abstract

Grammar mastery is one of the most essential components in English language proficiency. However, many EFL students often deal with tenacious learning difficulties. They take place due to monotonous learning instructions and students' different learning motivation. The academic research examines the effectiveness of Wayground (formerly Quizizz) in increasing students' grammar mastery across varying levels of learning motivation. By using a quasi-experimental mixed-method design, the research involved 70 eleventh-grade students at SMA Negeri 1 Pecangaan, Jepara. They were assigned to an experimental group receiving instruction through Wayground and a control group receiving conventional methods. The research data were gathered through assessments of grammar mastery administered as pre-test and post-test, a questionnaire of learning motivation adapted from Gardner's Attitude/Motivation Test Battery, and a questionnaire of student perception. Quantitative data were analysed using paired-sample t-tests, independent-sample t-tests, and two-way ANOVA. Qualitative data served to enrich and support the interpretation of the findings. The results indicate that both instructional approaches led to significant improvements in students' grammar mastery. The experimental class achieved a higher mean gain score than the control class but the difference was not statistically significant. Furthermore, learning motivation and the interaction between instructional method and motivation did not have significant effect on grammar mastery improvement. Nonetheless, students reported positive perceptions of Wayground, principally regarding increased engagement, enjoyment, and the provision of immediate feedback. These findings suggest that Wayground represents a pedagogically beneficial supplementary tool for grammar instruction, especially for boosting active and enjoyable learning experiences in EFL classrooms.

Keywords: Wayground application; grammar mastery; learning motivation

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INTRODUCTION

Grammar mastery is a fundamental component of English language learning as it underpins students' ability to communicate accurately and effectively in both spoken and written forms. Good grammar mastery is very essential for both comprehending and producing language. It ensures that the sentences are constructed clearly and the meaning is conveyed clearly and accurately too. So, if the students want to master the four skills, they have to master grammar first. It is in line with (Azar & Hagen, 2011) that the process of looking at and practicing grammar becomes a springboard for expanding the learners' abilities in listening, speaking, reading, and writing.

There are some reasons why grammar is very important for students. The first is that students are frequently asked to produce assignments, essays, and reports. Their ideas will be conveyed logically and convincingly if they use the correct grammar. The second is that in the workplace, people usually cannot escape from making emails, reports, presentations, and the like, all of which must



be clear and grammatically correct. Grammar mastery equips the students to meet those requirements. However, in fact, although the curriculum continues reforming, there are still many students who have difficulty in understanding the fundamental grammatical concepts especially related to tense, subject-verb agreement, and complex sentence structure. This is so because as the students in EFL (English as a Foreign Language), their exposure to the authentic language is very limited.

In recent years, technology has become a vital component of education. It has been commonly and massively used in teaching and learning process in all school subjects. The integration of digital technology into language learning has increasingly become a key focus in educational innovation including English. It offers innovative solutions to enhance language learning. As English continues to serve as a global communication tool, mastery of grammar remains an essential component for students to achieve communicative competence. However, many students still struggle with grammar due to traditional, teacher-centered instructional methods that often fail to engage learners or respond to their individual needs. Grammar, as a basic aspect of language proficiency, often becomes problems for learners, especially in English as a foreign language context. The conventional grammar teaching method, which rely most on textbooks and rote memorization, have got lot of criticisms for being monotonous and relatively boring. The traditional grammar teaching, which focusses mainly on textbooks and memorizing, is considered boring and not successful in helping students remember and use grammar for a long time. The learning activities feel repetitive and boring, the students often just repeat rules or fill in grammar exercises without creativity or interaction, and the class usually becomes passive, with little engagement or motivation. Besides, the method is commonly ineffective in boosting long term memory. This means that the students may remember grammar rules only for a short time (e.g., for a test), the students do not deeply understand or internalize the grammar because the method relies heavily on rote memorization, and the students often forget the rules they memorized when they need to use grammar in real communication (speaking/writing), they often forget the rules they memorized. This challenge is even more apparent among students with varying levels of motivation, a factor widely recognized as one of the strongest predictors of successful second-language acquisition. As a result, to create more interactive and engaging learning experience, many teachers have turned to digital or online tools like mobile applications.

Furthermore, the success of any teaching strategy depends heavily on the students' motivation. Motivation influences how actively students participate, how much effort they invest, and how persistent they are in facing learning challenges. Highly motivated students are more likely to take initiative in exploring learning resources, completing grammar exercises, and applying grammar rules in communication. Meanwhile, students with low motivation frequently disengage, which limits their progress. Decy and Ryan's Self Determination Theory states that intrinsic and extrinsic motivation affects significantly on how students engage with learning tasks and digital tools. While some students may find mobile applications intrinsically motivating, others may depend on external rewards. Consequently, there is a need for learning tools that can effectively address individual differences in motivation and support students in improving their grammar performance. Based on the context, it is crucial to investigate how students with different motivations respond to the mobile application in the context of grammar learning.

One example of the mobile applications that is commonly used these days is Quizizz. It is a well-known online learning platform that provides a vast number of quizzes that teachers and students can use in their daily lessons. The website' quizzes can be copied and shared anytime and anywhere as long as the internet connection is available. The quizzes provided on the website are free to duplicate and distribute to students at any time. There are no restrictions on when users can



copy and share them. Quizizz is a free site that can easily accessed because of its user-friendly interface. In addition, teachers can also design their own quizzes or tests based on their own tastes and students' needs. Thus, it is obvious why many teachers would be extremely favour using Quizizz in their teaching and learning processes (Lim & Yunus, 2021).

As time goes by, Quizizz has evolved into Wayground. It was officially launched on June 24, 2025. The platform has been rebranded from Quizizz into Wayground to demonstrate the development from just a quiz tool into a more versatile, AI-supported supplemental learning platform for instruction, practice, and assessment. Wayground is also completed with its gamification elements, adaptive learning features, and customized grammar exercises. Wayground lets educators provide different versions of content for learners with different needs such as varying difficulty, read-aloud support, language translation, allowing modifications per student. The use of the application promises a shift from passive learning to active learning, from boring learning into more enjoyable learning activities.

A number of studies have examined the effectiveness of language learning application in improving vocabulary and speaking ability, meanwhile researches focusing exclusively on grammar mastery to students with different motivation are still restrictive. Educational applications, particularly mobile-based platforms and web-based platforms, have emerged as promising solutions to enhance learning outcomes. One such application is Wayground, a digital learning platform designed to offer interactive, gamified, and student-centered learning experiences. Wayground provides features such as grammar practice tasks, instant feedback, progress tracking, and reward systems that aim to increase engagement and facilitate mastery. These features align with the principles of technology-enhanced learning. The principles emphasize active learning, personalized feedback, and learner autonomy. Digital learning applications influence students differently depending on whether they have high, moderate, or low motivation. Motivation affects how learners engage with the app, how long they persist, and how much they benefit from the learning features provided. Despite the increasing popularity of digital learning tools, empirical research on the effectiveness of Wayground, specifically in improving grammar mastery, remains limited. Moreover, few studies investigate how such application interact with different levels of learner motivation. Since motivation may influence how frequently and effectively students use digital tools, understanding this relationship is crucial.

Based on this context, it becomes important to investigate whether the Wayground can significantly enhance students' grammar mastery and whether its effectiveness differs among students with high and low motivation. This research is designed to fill this gap by examining the role of Wayground as a supplementary learning tool and its interaction with the learner's motivation in improving grammar outcomes. In this study, the researcher intends to examine the effectiveness of Wayground in enhancing the grammar mastery of the eleventh-grade students of SMA Negeri 1 Pecangaan, one of the state schools in Jepara Central Java. Evaluating the effectiveness of Wayground application across the students' motivation levels is expected to provide deep and valuable insights for teachers, curriculum developers, and policymakers seeking to implement technology-based learning strategies.

The detailed objectives of this research are : (1) to evaluate the grammar mastery of students taught without using Wayground application. (2) to evaluate the grammar mastery of students taught using Wayground application. (3) to compare the effectiveness of Wayground application among the students with high, moderate, and low motivation. (4) to identify the benefits and challenges the students experience when using Wayground application for their grammar learning, particularly in relation to their motivational differences.



LITERATURE REVIEW

Review of Related Previous Studies

A number of previous studies have investigated the use of digital quiz-based platforms in grammar instruction and reported largely positive outcomes. (Nurhalyza et al., 2024) found that the use of Quizizz significantly improved senior high school students' grammar accuracy in writing. (Ming Hui et al., 2021) reported that primary school students became more motivated and actively engaged in grammar learning when Quizizz was implemented during online learning. (Vu et al., 2024) demonstrated that high school students taught using Quizizz achieved significantly better grammar competence than those taught conventionally and expressed positive perceptions of the application.

Similarly, (Sinta et al., 2019) showed that Quizizz facilitated self-assessment and helped students identify their grammatical strengths and weaknesses, leading to improved grammar understanding. (Fadhilawati et al., 2022) reported substantial improvement in students' mastery of passive voice through Quizizz-based instruction. (Aminah & Amir, 2021) also confirmed that primary school students taught using Quizizz outperformed those taught using traditional methods.

However, not all studies reported statistically significant results. (Murtiningsih et al., 2024) found no significant difference between mobile-assisted learning and other instructional media, highlighting that technology integration does not automatically guarantee improved outcomes. These mixed findings indicate the importance of considering learner characteristics, instructional design, and contextual factors. The present study extends previous research by focusing on the rebranded Wayground platform and examining its effectiveness in relation to students' motivation levels at the senior high school level.

Related Theories

Mobile Assisted Language Learning(MALL) and Wayground Application

The technology development has provided various convenience generally in education and specifically in language education.

Mobile Assisted Learning (MALL) is one approach that uses mobile technology to enhance and support language learning. It is regarded as language learning in both real-world and virtual environment which is assisted by portable (handheld and wearable) devices as well as communication and social and social network technologies (Gunawardena et al., 2016). MALL is a way or method of learning languages by using mobile devices, such as smartphones, tablets, or other portable gadgets. These mobile technologies are used to improve (enhance) and help (support) students in learning a language through language learning apps (Duolingo, Memrise, etc.), online dictionaries, mobile quizzes, pronunciation tools, messaging platforms for practice, and mobile-based grammar or vocabulary exercises. So, the idea is that MALL makes language learning easier, more flexible, and more accessible because learners can practice anytime and anywhere using their mobile devices.

Along with the expansion of the wireless internet access and the increasing number of the mobile device owners, the use of the mobile devices to support language learning becomes more common. MALL(Mobile Assisted Language Learning) is different with CALL (Computer Assisted Language Learning) in terms of its personal and portable use that enable new ways of learning emphasizing continuity or spontaneity of access and interaction across different context of use. In general, MALL would be expected to use technologies such as mobile phones, MP3/MP4 players, PDAs, and palmtop computers (Kukulska-Hulme & Shield, 2008).

The teaching and learning process cannot be separated with assessment. Some kinds of online assessment tools which are usually used in English educational process are Quizizz (now Wayground), Kahoot, Classkick, and



Mentimeter. However, the focus of this study is on Wayground. According to (Yan mei et al., 2019), quizizz (now Wayground) is an online assessment platform that enables all students to practice together with their smart devices. Quizizz can be used for giving quizzes, tests, practice exercises, and learning activities. Through Quizizz, students can access and do these activities using smartphones, tablets, or laptops. Quizizz allows students to work on the tasks, questions, or exercises. Students can participate anytime and anywhere using personal gadgets like phones or tablets.

Technology Acceptance Model(TAM)

Technology Acceptance Model was a theoretical model introduced to address (1) Why end-users accept or reject information systems and (2) how user acceptance is affected by the design features of the system. It specifies the causal interrelationships between system design features, perceived usefulness, perceived ease at use, attitude toward using and actual usage behavior (Atchariyachanvanich et al., 2011). In educational contexts, students are more likely to adopt digital learning tools when they find them useful and easy to operate. Wayground's intuitive interface and interactive design are expected to positively influence students' attitudes and learning engagement.

Grammar Mastery in English Language Learning

Thornby (1999) in (Hestningsih, 2016) states that grammar is a description of the rules that govern how a language sentence is formed. While grammar mastery is the knowledge and ability to use the grammatical rules of language and use them effectively in communication. In other words, grammar mastery in learning English refers to a learner's ability to understand, apply, and use the rules of English grammar accurately and effectively in both written and spoken communication. In communication, whether it is in the form of spoken or written, grammar plays an important role. It helps to convey the meaning accurately. Incorrect or poor grammar can cause confusion or misunderstanding. The existence of grammar acts as a universal rule that makes it possible for people from various backgrounds to converse in the same language. This is very important considering that English is one of the most frequently used international languages. The grammar mastery itself increases confidence while speaking or writing. Whether in casual conversation, academic settings, or professional environments, good grammar reflects competence and credibility.

Much more than just rules and sentence structures, grammar provides the foundation that enables precision, clarity, and coherence in both written and spoken communication. For English learners, a powerful grammar mastery not only helps them to avoid misunderstanding but also increases confidence in expressing ideas in a variety of academic, professional, and everyday contexts. Moreover, understanding grammar fosters critical thinking because here the learners are required to analyze and create meaning intentionally. (Azis Mubarak et al., 2025)

Students' Motivation in Language Learning

There are many factors influencing students' success in language learning. One of them is motivation. The motivation here may come from within or outside themselves. There are some students whose reasons to learn language are because they love the subject, because they love the culture, etc. However, there are also those whose reasons to learn language because they have to take it as it is a compulsory subject at school, because it is one of requirements to apply for jobs, etc.

(Duc Thuan & Author, 2021) says that two major attributes that influence how well a student learn a language are attitude and motivation. In line with that, Gardner (1985) in (Seven, 2020) states that motivation is an essential contributor



to language achievement in terms of linguistic outcomes, which generally involves the knowledge of language like vocabulary, grammar, and pronunciation as well as the four fundamental skills of language including listening, speaking, reading, and writing. The learner's motivation such as desire, interest, and drive to learn plays a central role in determining how well the students achieve linguistic competence in a new language.

Interaction between Technology and Motivation

Learning a foreign language can be a challenging process for students. They need motivation and support in this period. Teachers should be active and creative to find the appropriate method to teach their students. If not, it is very possible if the students can easily lose their desire and spirit to study. One of the ways to arouse students' interest is by using technology. That is because the technological equipment like interactive whiteboard, TV, computer, laptop, tablet, projector, smart phone with its many kinds of application, and many other audio video equipment provide authentic materials. For the English language learners, they can learn the language by watching or listening western movies, songs, television programs, etc. in which all of them are authentic materials as they are delivered by native speakers.

The use of technology in the classroom brings a lot of benefits for the students. With the use of technology in the classroom, the students will have a chance to see the real world in the classrooms. As a result, they can be motivated easily. Stepp-Granny (2000) in (Binnur GENC ILTER, 2009) says that classrooms equipped with technology increase the students' motivation due to the interactive nature of the activities. According to Wang (2004) in (Kalanzadeh et al., 2014), language learners will be able to improve their language skills when they have actual and desirable communication aspects. Utilizing computers and other technological devices offers the students sense of freedom and encouragement. With the help of technology, the students will be more engaged, motivated, and active in the language learning process.

METHOD

Research Design

This research uses a quasi-experimental design. (Goundar, 2012) states that an experimental research establishes the cause-effect relationship and does the comparison, but the cause is manipulated. The cause, that is the independent variable makes the difference. The effect, that is the dependent variable is dependent on the independent variable. This research examines the main effects of the two independent variables, mainly the learning methods (Using Wayground vs. traditional) and motivation (high, moderate, and low) on the dependent variable, that is grammar mastery. To improve the data interpretation, this study uses mixed method, with the quantitative data quantifying the effectiveness and the qualitative data providing the students' deeper insights about the use of Wayground application in their language learning.

According to (John W, 2017) mixed method is an inquiry method which involves gathering both the quantitative and the qualitative data, combining them, and applying unique designs that may incorporate the philosophical assumptions and theoretical frameworks. The fundamental premise of this method is that by combining both the quantitative and the qualitative approaches will provide a more complete understanding about a research problem than by using only one approach.

Reserach Participants

The participants comprised 70 eleventh-grade students from SMA Negeri 1 Pecangaan in the 2025/2026 academic year. The experimental group were assigned



to 34 students taught using Wayground app. remaining 36 students formed the control group taught using conventional instructional methods.

Reserach Instruments

Three instruments were used in this study: (1) a grammar mastery test focusing on the Simple Present Tense, (2) a learning motivation questionnaire adapted from Gardner's Attitude/Motivation Test Battery (AMTB), and (3) a student perception questionnaire toward the use of the Wayground application.

The grammar test was conducted to measure the students' grammar mastery. The test was done before the lesson (pre-test) and after the lesson (post-test) both to the treatment and control classes. The grammar text here was limited to the material of Simple Present Tense. The questions in the test focus on the uses of simple present tense, for example to show general truth, habits, facts, and present states or conditions. While the forms of the questions include completing sentences with the right auxiliaries (is, am, are, do, does) and also the suitable verbs (with-s or -es or without -s or -es). The point is that here the researcher tested the students' understanding about the sentence patterns of Simple Present Tense both in the form of nominal and verbal sentence.

The first questionnaire mainly learning motivation questionnaire adapted from Gardner's Attitude/Motivation Test Battery (AMTB) was conducted to identify the students' motivation levels and the second questionnaire mainly student perception questionnaire was organized to identify the students' perceptions towards Wayground application. Both questionnaires utilized a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

All the instruments were tested for validity and reliability prior to data collection.

Technique of Data Analysis

The data of this research belongs to quantitative and qualitative data. The quantitative data were analysed through descriptive statistics, paired-sample t-tests, independent-sample t-tests, and two-way ANOVA. In addition, the qualitative responses obtained the questionnaire of participants' perception were examined descriptively to complement and support the quantitative findings.

RESULT AND DISCUSSION

Result

Validity and Reliability of Research Instruments

Prior to the hypothesis testing, all research instruments were subjected to validity and reliability analyses. The questionnaires of the students' learning motivation, adapted from Gardner's Attitude/Motivation Test Battery, primarily comprised 20 items. After the validity testing, the 15 items were recalled, yielding a Cronbach's Alpha coefficient of 0.925. It indicates high reliability. The test of grammar mastery, which consists of 25 multiple-choice items, demonstrated acceptable validity ($r > r\text{-table}$) and high reliability as measured by the KR-20 formula ($KR-20 = 0.894$). In addition, the questionnaires of students' perception also exhibited strong internal reliability or consistency with a Cronbach's Alpha of 0.935. Overall, these findings indicate that all research instruments were suitable for data collection.



Table 1. Reliability Coefficients of Research Instruments

Instrument	Number of Items	Reliability Index	Interpretation
Motivation Questionnaire	15	0.925	Highly reliable
Grammar Mastery Test	25	0.894	Highly reliable
Student Perception Questionnaire	22	0.935	Highly reliable

Description of Students' Learning Motivation

The students' learning motivation was assessed using a validated questionnaire adapted from Gardner's Attitude/Motivation Test Battery (AMTB). Based on the obtained scores, students were classified into three categories: low, moderate, and high levels of motivation. The distribution of students' motivation levels across both classes is presented in Table 2.

Table 2. Distribution of Students' Learning Motivation

Motivation Level	Control Class (n=36)	Experimental Class (n=34)
Moderate	12 (33%)	15 (44%)
High	24 (67%)	19 (56%)
Total	36 (100%)	34 (100%)

The table indicates that none of the students in either class group were classified as having low motivation category. In the control group, 67% of students were identified as highly-motivated and 33% of students were categorized as having moderate motivation. Likewise, in the experimental group, 56% of students exhibited high motivation, while 44% of students were demonstrated moderate motivation. This relatively-balanced distribution suggests that both groups possessed comparable motivational profiles or characteristics prior to the treatment, thereby supporting the fairness of comparing the Wayground app's instructional effects and conventional teaching methods.

Students' Grammar Mastery Achievement

The students' grammar mastery was assessed using pre-test and post-test measures. Both the experimental and control groups exhibited improvement on their performance. However, the experimental group achieved a higher gain score.



Table 3. Grammar Mastery Scores Based on Motivation Level

Motivation	Class	Pretest Mean	Posttest Mean	Gain
High	Experimental	40.84	60.21	19.37
High	Control	44.50	61.83	17.33
Moderate	Experimental	32.53	48.53	16.00
Moderate	Control	45.67	53.67	8.00
Total	Experimental	37.18	55.06	17.88
Total	Control	44.89	59.11	14.22

Table 3 indicates that both groups demonstrated improvement in grammar mastery from pretest to post-test. Nevertheless, the experimental group constantly recorded higher gain scores than the control group across both levels of motivation. Highly-motivated students in the experimental group achieved the highest gain score (19.37), then followed by highly-motivated students in the control group (17.33). Likewise, moderately-motivated students in the experimental group exhibited greater improvement than their counterparts with similar motivation levels in the control group. Overall, these results indicate that the implementation of Wayground app led to a positive contribution to grammar learning, particularly in enhancing students' learning gains.

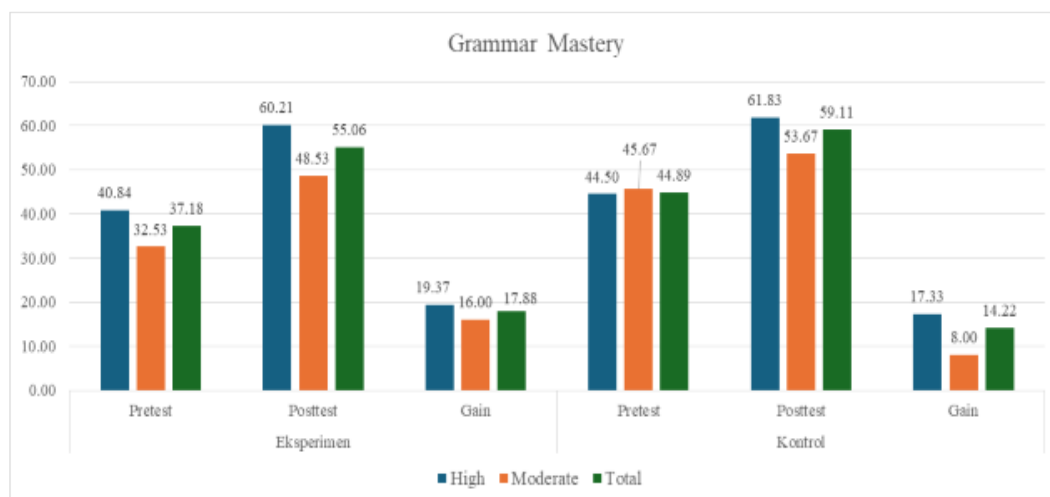


Figure 1. Comparison of Grammar Mastery Gain Scores Between Classes

The figure illustrates that the experimental class achieved a higher mean gain score compared to the control class.

Assumption Tests: Normality and Homogeneity

Before conducting inferential statistical analyses, normality and homogeneity tests were performed to ensure that the data met the assumptions required for parametric testing. The normality test results indicated that all pretest and post-test scores in both classes were normally distributed ($p > 0.05$). In addition, the homogeneity test showed that the variances between the control and experimental classes were homogeneous. These results confirm that further statistical analyses using t-tests and ANOVA were appropriate.

Inferential Statistic Analysis

The paired-sample t-tests revealed statistically significant differences between the pre-test and post-test scores in both groups ($p < 0.05$), suggesting that



each instructional methods was effective in improving grammar mastery. In addition, independent-sample t-tests analyses revealed no statistically significant differences in grammar mastery between students with high and moderate levels of motivation in either class.

Table 4. Paired Sample t-Test Results for Grammar Mastery

Class	t-value	df	Sig. (p)	Interpretation
Control	4.119	35	0.001	Significant improvement
Experimental	7.446	33	0.001	Significant improvement

A two-way analysis of variance (ANOVA) was performed to investigate the effects of instructional teaching method (Wayground instruction vs conventional instruction), learning motivation, and the interaction between these variables on students' grammar mastery improvement.

Table 5. Two-Way ANOVA Results

Source	F	Sig.	Partial Eta Squared
Class	1.314	0.256	0.020
Motivation	2.105	0.152	0.031
Class × Motivation	0.464	0.498	0.007

The findings indicate that the instructional method, learning motivation, and their interaction did not produce statistically significant effects on grammar mastery improvement. Likewise, no effect of significant interaction was identified between instructional method and motivation. Nevertheless, the analysis of effect size indicated that motivation exerted the greatest practical influence, although the magnitude of the effect was relatively small. This implies that despite the statistical differences were not identified, learning motivation remains an important factor in supporting the students' learning outcomes.

Students' Perceptions on Wayground Application

Students' responses to the perception questionnaire revealed positive attitudes toward the use of Wayground. Most students agreed that Wayground made grammar learning more enjoyable, interactive, and motivating.

Table 6. Summary of Students' Perceptions Toward Wayground

Response Category	Percentage
Strongly Agree	18–35%
Agree	38–53%
Neutral	18–38%
Disagree	<10%
Strongly Disagree	0%

These findings suggest that although the statistical impact of Wayground on grammar mastery was modest, the application contributed positively to students' learning experiences and engagement.

Discussion

The detailed objectives of this research are : (1) to evaluate the grammar mastery of students taught without using Wayground application.(2) to evaluate



the grammar mastery of students taught using Wayground application. (3) to compare the effectiveness of Wayground application among the students with high, moderate, and low motivation. (4) to identify the benefits and challenges the students experience when using Wayground application for their grammar learning, particularly in relation to their motivational differences.

With respect to the first research question, the research results indicate that students who received conventional instruction showed a statistically significant improvement in grammar mastery. Nevertheless, the extent of this improvement was comparatively lower than the extent of this improvement observed in the experimental group.

In response to the second research question, students who were instructed using the Wayground app also demonstrated a statistically significant improvement in grammar mastery, achieving higher mean gain scores than the students in the control class. The interactive features, gamified elements, and immediate feedback offered by Wayground app appear to facilitate active learning and strengthen grammatical understanding, which aligns with the principles of Mobile Assisted Language Learning.

The third research question explored the influence of students' motivation levels on the improvement of grammar mastery. The findings indicated no statistically significant differences between the students with high and moderate motivation in either group. However, the students with higher motivation constantly attained higher mean scores, supporting Gardner's (1985) assertion that motivation plays a contributory role in learning success, even when statistical significance is not perceived.

The two-way ANOVA findings further indicated that instructional method, learning motivation, and their interaction did not have statistically significant effects on the improvement of grammar mastery. Nevertheless, the analysis of effect size revealed that motivation demonstrated the strongest practical influence among the examined variables. This finding underscores the importance of motivation as a supporting factor in language learning and highlights the need to consider motivational aspects when developing instructional strategies.

With regard to the fourth research question, the students' perceptions toward the Wayground app were principally positive. The students indicated that Wayground app made grammar learning more pleasant, minimized boredom, promoted active participation, and offered immediate feedback. The perceptions are consistent with some previous studies which reported that digital quiz-based platforms enhance the learners' engagement and motivation. Furthermore, these results findings align with Technology Acceptance Model, which highlights perceived usefulness and ease of use as determinant factors influencing the adoption of technology in educational settings or learning contexts.

Overall, although the statistical impact of Wayground on grammar mastery improvement was modest, its pedagogical benefits in terms of engagement and learner experience are evident. Therefore, Wayground can be considered an effective supplementary tool that complements conventional grammar instruction rather than replacing it entirely.

CLOSING

Conclusion

This research concludes that Wayground app potentially enhance the students' grammar mastery effectively. It is obviously indicated by significant gains between the pre-test and post-test results. the improvement was not significantly different from conventional instruction, Wayground offered added value in terms of student engagement and positive learning experiences. Motivation did not significantly influence grammar mastery improvement; however, it remained a relevant and important factor in accounting for variations in learning outcomes. Accordingly, Wayground app can be recommended as an alternative and



supplementary instructional tool to enrich the practice of grammar teaching for EFL learners, predominantly in creating meaningful and enjoyable learning environments.

Suggestion

Based on the research findings, English teachers are advised to incorporate Wayground app as a supplementary tool to enhance the students' involvement and engagement in learning grammar in classroom learning. In addition, future studies are encouraged to investigate the use of Wayground app over extended intervention periods, across a wider range of grammar topics, and with more diverse learner populations to further evaluate Wayground app's effectiveness.

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