

THE IMPACT OF GRAMMAR STAR AS A MALL TOOL ON GRAMMAR MASTERY AND STUDENTS' PERCEPTIONS

Umi Hamidah¹, Dedy Subandowo², Fitri Palupi Kusumawati^{3*}, Bambang Eko Siagiyanto

Universitas Muhammadiyah Metro, Indonesia

umihamidah0402@gmail.com
dedy.subandowo@ummetro.ac.id
fitripalupi.1985@ummetro.ac.id
bambangekos6@ummetro.ac.id

Abstract

This study aimed to investigate the impact of Grammar Star as a Mobile-Assisted Language Learning (MALL) tool on students' English grammar mastery and to explore their perceptions of its use. This mixed-methods study employed a quasi-experimental pretest-posttest design involving 53 tenth-grade students of SMK Muhammadiyah Sekampung, with 24 students in the experimental group and 29 in the control group. The experimental group received grammar instruction using Grammar Star for six meetings, while the control group received conventional instruction. Data were collected through a 30-item grammar test, a 17-item perception questionnaire, and semi-structured interviews. Quantitative data were analyzed using the Wilcoxon Signed-Rank Test and Mann–Whitney U Test, while perception data were analyzed descriptively. The Wilcoxon test showed a significant difference between the experimental group's pretest and posttest scores ($Z = 4.171$, $p < .001$), with a large effect size ($r = .851$). The Mann–Whitney U Test also revealed a significant difference between the groups' posttest scores ($U = 135.000$, $Z = -3.818$, $p < .001$), with a large effect size ($r = .524$). Students' perceptions were generally positive, with item means ranging from 3.37 to 3.96. These findings suggest that Grammar Star can effectively support grammar mastery and provide a positive learning experience.

Keywords: Grammar Star, grammar mastery, mobile-assisted language learning, English grammar, vocational students

INTRODUCTION

Grammar is a fundamental component of English language learning because it enables learners to construct accurate and meaningful sentences (Richards and Renandya 2022). However, mastering grammatical structures, particularly English tenses, remains challenging for many EFL learners (Listia and Febriyanti, 2020). This challenge is also evident among vocational high school students, who are expected to develop practical English competencies while preparing for future professional environments. The need for an alternative approach to grammar instruction was identified at SMK Muhammadiyah Sekampung.

Preliminary data obtained from a grammar test administered to tenth-grade DKV students showed that the overall accuracy rate was only 46%. Most students experienced difficulties with subject–verb agreement, negative sentence formation, and the use of auxiliary verbs. In addition, informal interviews indicated that students perceived grammar as difficult and boring, while classroom activities were considered repetitive and monotonous. These findings suggest a need for more varied, interactive, and technology-supported approaches to grammar learning.

The development of mobile technology has created new opportunities for language learning. Mobile-Assisted Language Learning (MALL) refers to the use of mobile technologies, including smartphones and applications, to facilitate language learning. MALL provides portability, accessibility, flexibility, and opportunities for learners to practice language beyond the classroom (Murtiningsih et al., 2024). Burston (2014), in his review of two decades of MALL research, reported positive effects of mobile learning on language acquisition, particularly when applications provide interactive activities and immediate feedback. More recent studies have likewise reported positive effects of mobile-assisted and gamified learning on grammar accuracy, motivation, and engagement (Aratea & Pasubillo, 2024; Murtiningsih et al., 2024; Refat, 2022).

Several studies have specifically examined mobile applications for grammar learning. Yuliani (2025) found that the use of Busuu significantly improved students' grammar mastery, with mean scores increasing from 62.29 in the pretest to 83.19 in the posttest. However, the study employed a one-group pretest-posttest design and focused only on simple past and past continuous tenses. The absence of a control group limited the possibility of comparing the effectiveness of the application with conventional instruction.

Other studies have investigated popular MALL applications such as Duolingo and Grammarly. Maharani et al. (2024), for example, reported positive outcomes from the use of Duolingo in grammar learning, while Thao (2024) examined the use of Grammarly to improve grammatical accuracy in writing. Suherman et al. (2024) also found that gamified features such as points, feedback, and interactive tasks could enhance students' learning motivation. These findings demonstrate the potential of MALL and gamification for English learning; however, much of the existing research has focused on popular applications and has not specifically examined a gamified application designed for structured grammar practice.

One application that addresses this area is Grammar Star, formerly known as Speedy English Grammar. Developed by Wobble Monkey Games, the application is designed to support English grammar learning through structured lessons, interactive exercises, immediate feedback, and game-based features. It provides grammar lessons and activities that allow learners to repeatedly practice grammatical structures while receiving feedback on their performance.

Previous studies on Speedy English Grammar have reported positive effects on grammar achievement. Najilah et al. (2024) found a significant difference between

students who used the application and those who received conventional instruction, while Rahmah et al. (2023) reported higher posttest achievement among students who learned using Speedy English Grammar.

Despite these findings, several gaps remain. First, relatively limited attention has been given to tense mastery as a specific area of grammatical competence. Second, although applications such as Duolingo, Busuu, and Grammarly have received considerable research attention, Grammar Star remains less explored, particularly in the Indonesian EFL context. Third, previous MALL studies have been conducted largely in university or senior high school settings, leaving vocational school contexts comparatively underexplored. Finally, quantitative studies have commonly focused on learning outcomes, while fewer studies have simultaneously examined students' perceptions and acceptance of mobile-assisted grammar applications.

The present study addresses these gaps by investigating Grammar Star in a vocational school context and focusing specifically on students' mastery of three English tenses: simple present, present continuous, and simple past. In addition to measuring learning outcomes, the study explores students' perceptions of Grammar Star in terms of its usefulness, ease of use, and learning motivation. This combination of learning outcomes and learner perceptions is intended to provide a more comprehensive understanding of the potential of gamified MALL for grammar instruction.

The study is also informed by the Technology Acceptance Model (TAM), particularly the concepts of perceived usefulness and perceived ease of use. In the context of this research, TAM provides a framework for understanding students' acceptance of Grammar Star and their perceptions of whether the application is useful and easy to operate for grammar learning.

Therefore, the novelty of this study lies in three aspects. First, it specifically investigates the mastery of three fundamental English tenses rather than grammar learning in general. Second, it examines a less-explored gamified MALL application, Grammar Star, among Indonesian vocational high school students. Third, it integrates students' learning outcomes with their perceptions of the application through a mixed-methods approach. These features distinguish the present study from previous research that has predominantly examined other mobile applications, different educational contexts, or only one dimension of learning.

Accordingly, this study aims to investigate the effect of using Grammar Star as a Mobile-Assisted Language Learning tool on tenth-grade students' mastery of English tenses at SMK Muhammadiyah Sekampung. Specifically, it aims to (1) examine the improvement in students' grammar mastery after learning through Grammar Star, (2) compare the grammar mastery of students taught using Grammar Star with those taught through conventional instruction, and (3) examine students' perceptions of using Grammar Star for grammar learning.

METHOD

Design

This study integrated quantitative and qualitative approaches to provide a comprehensive understanding of the research objectives. The quantitative component used a quasi-experimental pretest-posttest design involving an experimental group and a control group. The experimental group received grammar instruction using Grammar Star, whereas the control group received conventional instruction.

The treatment focused on three English tenses: simple present, present continuous, and simple past. The qualitative component consisted of a perception questionnaire and semi-structured interviews administered to students in the experimental group. The questionnaire focused on students' perceptions of the usefulness and ease of use of Grammar Star and their learning motivation.

Subject or Participant

The population consisted of tenth-grade students at SMK Muhammadiyah Sekampung in the 2025/2026 academic year. Two classes were selected using purposive sampling based on considerations including comparable English proficiency and the research schedule. X DKV 2 was selected as the experimental group, while X DKV 1 served as the control group. The experimental group consisted of 24 students, and the control group consisted of 29 students, resulting in 53 participants.

Data and Source of Data

The data in this study consisted of quantitative and qualitative data obtained from the participants. The quantitative data included students' grammar test scores and responses to the perception questionnaire, while the qualitative data consisted of students' responses obtained through semi-structured interviews. The grammar test data were obtained from 53 tenth-grade students of SMK Muhammadiyah Sekampung, consisting of 24 students in the experimental group and 29 students in the control group. The test consisted of 30 multiple-choice items administered as a pretest and posttest to measure students' grammar mastery. The test focused on three English tenses: simple present, present continuous, and simple past. The resulting scores were treated as quantitative data and used to examine changes in students' grammar mastery and differences between the experimental and control groups.

The perception data were obtained from the 24 students in the experimental group who used Grammar Star during the treatment. The data were collected through a 17-item questionnaire using a five-point Likert scale. The questionnaire measured students' perceptions of Grammar Star in terms of its usefulness, ease of use, and learning motivation. These data were ordinal quantitative data and were analyzed descriptively. In addition, qualitative data were obtained through semi-structured interviews with selected students from the experimental group. The interviews were conducted to obtain more detailed information about students' experiences, engagement, motivation, and perceptions when using Grammar Star for grammar learning.

Data Collecting Technique

The research was conducted through preparation, implementation, and evaluation stages. During the preparation stage, the researcher conducted preliminary observation, prepared the research instruments, consulted the instruments with the thesis advisor and English teacher, and coordinated the research schedule with the school.

During the implementation stage, both groups completed the pretest before receiving instruction. The experimental group subsequently learned grammar using Grammar Star for six meetings, focusing on simple present, present continuous, and simple past tenses. The control group received conventional grammar instruction. After the treatment, both groups completed the posttest. The questionnaire was then administered to the experimental group, followed by semi-structured interviews with selected students.

Data Analysis Technique (how the result is analyzed)

The quantitative data were analyzed using SPSS. Because the posttest data did not meet the assumption of normality, non-parametric statistical tests were employed. The Wilcoxon Signed-Rank Test was used to examine the difference between pretest and posttest scores in the experimental group, while the Mann–Whitney U Test was used to compare posttest scores between the experimental and control groups.

Effect sizes were also calculated to determine the magnitude of the observed differences. For the Wilcoxon test, effect size was calculated using $r = |Z| / \sqrt{N}$. The same formula was applied to the Mann–Whitney test. Students' questionnaire responses were analyzed descriptively using item means, while interview responses were examined thematically according to the main areas of students' perceptions.

RESULT AND DISCUSSION

Result

Students' Grammar Mastery

The descriptive statistics showed an increase in students' grammar scores after the treatment. The experimental group had a pretest mean of 30.67 (SD = 9.45) and a posttest mean of 78.54 (SD = 19.56). Meanwhile, the control group obtained a pretest mean of 33.66 (SD = 10.23) and a posttest mean of 55.00 (SD = 16.46).

Table 1. Descriptive Statistics of Grammar Test Scores

Group	N	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD
Experimental	24	30.67	9.45	78.54	19.56
Control	29	33.66	10.23	55.00	16.46

The results indicate that both groups improved after instruction; however, the increase in the experimental group was substantially greater than that of the control group.

For the first research question, the Wilcoxon Signed-Rank Test was conducted on the 24 students in the experimental group. The analysis revealed a statistically significant difference between the pretest and posttest scores, $Z = 4.171$, $p < .001$. The effect size was $r = .851$, indicating a large effect. Thus, students' grammar mastery significantly improved after learning through Grammar Star.

For the second research question, the Mann–Whitney U Test was used to compare the posttest scores of the experimental and control groups. The result showed a statistically significant difference, $U = 135.000$, $Z = -3.818$, $p < .001$. The effect size was $r = .524$, which represents a large effect. Therefore, students who learned through Grammar Star demonstrated significantly different and higher posttest performance than students who received conventional instruction.

Students' Perceptions of Grammar Star

The questionnaire results indicated generally positive perceptions of Grammar Star. All 17 questionnaire items were answered by the 24 experimental-group students, and the item means ranged from 3.37 to 3.96. The highest mean was found for Question 12 ($M = 3.96$), while the lowest mean was found for Question 11 ($M = 3.37$). Overall, students tended to agree that Grammar Star was useful, easy to use, and supportive of their motivation and engagement in grammar learning.

The interview findings supported the questionnaire results. Students reported that Grammar Star helped them understand grammar more easily, made learning more enjoyable, and increased their interest and motivation. Students also described the application as easy to use and understandable.

DISCUSSION

The quantitative findings indicate that Grammar Star was effective in supporting students' grammar mastery. The experimental group demonstrated a substantial increase from a pretest mean of 30.67 to a posttest mean of 78.54. More importantly, the Wilcoxon test showed a statistically significant improvement with a large effect size ($r = .851$). This indicates that the improvement was not only statistically significant but also substantial in magnitude.

The findings may be explained by the characteristics of Grammar Star as a gamified mobile learning application. The application provides structured grammar materials, interactive exercises, immediate feedback, and game-like features such as points and progress levels. These features allow students to practice grammatical structures repeatedly and receive immediate information about their performance. Such repeated and interactive practice may help students reinforce their understanding of grammatical forms.

The comparison between the two groups further strengthens this finding. The Mann–Whitney U Test showed a significant difference between the experimental and control groups, with a large effect size ($r = .524$). This suggests that the experimental group's higher posttest performance was not simply related to improvement over time but was also associated with the instructional treatment using Grammar Star.

This finding is consistent with previous research on mobile-based grammar learning. Yuliani (2025) found that students' grammar scores significantly improved after using Busuu as a MALL application. However, the present study differs in its use of a control group and its focus on three tenses. Previous research by Najilah et al. (2024) and Rahmah et al. (2023) also reported positive effects of Speedy English Grammar, the application formerly known as Grammar Star, on students' grammar achievement. The present study extends these findings by examining the application in a vocational school context and by combining achievement data with students' perceptions.

The positive questionnaire and interview findings provide additional support for the use of Grammar Star. Students generally perceived the application as useful, easy to use, and motivating. These perceptions are consistent with the principles of the Technology Acceptance Model, which suggests that perceived usefulness and perceived ease of use are important factors in users' acceptance of technology.

The interview findings also indicate that the gamified and interactive characteristics of the application contributed to students' engagement. Students reported that grammar learning became more enjoyable and that they felt more enthusiastic when using the application. These findings are in line with previous research suggesting that interactive and game-based elements can support motivation and engagement in mobile-assisted language learning.

Overall, the findings suggest that Grammar Star has potential as a supplementary tool for grammar instruction. However, its role should not necessarily replace teacher-led instruction. Grammar Star primarily provides structured and form-focused practice, while teachers can provide contextualized and communicative activities that allow students to apply grammatical knowledge in meaningful situations.

CONCLUSION

The findings demonstrate that Grammar Star had a significant and substantial effect on students' English grammar mastery. The experimental group showed a significant improvement between the pretest and posttest scores, with a large effect size ($r = .851$). In addition, the experimental group performed significantly differently from the control group on the posttest, with a large effect size ($r = .524$). Students also demonstrated generally positive perceptions of Grammar Star, particularly regarding its usefulness, ease of use, and ability to make grammar learning more engaging.

These findings suggest that Grammar Star can be used as a supplementary medium for teaching English grammar, particularly for tense-focused learning. Teachers are encouraged to integrate mobile-based applications with classroom instruction rather than relying on the application alone. Future researchers may examine Grammar Star with larger samples, longer treatment periods, or other language skills and learning contexts.

REFERENCES

- Aratea, M. L., & Pasubillo, M. A. C. (2024). Effects of Game-Based Learning on Improving Grammar Skills of Grade 9 Students. *Journal of English as A Foreign Language Teaching and Research*, 4(2), 43–60.
<https://doi.org/10.31098/jefltr.v4i2.2445>
- Burston, J. (2014). The reality of mall: Still on the fringes. *CALICO Journal*, 31(1), 103–125. <https://doi.org/10.11139/cj.31.1.103-125>
- Listia, R., & Febriyanti, E. R. (2020). EFL Learners' Problems in Using Tenses: An Insight for Grammar Teaching. *IJET (Indonesian Journal of English Teaching)*, 9(1), 86–95. <https://doi.org/10.15642/ijet2.2020.9.1.86-95>
- Murtiningsih, S. R., Wati, N. P. T. A., & Haryadi, D. (2024). The Effectiveness of Mobile Applications in Developing Students' English Grammar Skills. *E3S Web of Conferences*, 594. <https://doi.org/10.1051/e3sconf/202459405008>
- Najilah, I., Sudirman, A., & Munawaroh, T. (2024). The effectiveness of Speedy English Grammar application on students' grammar mastery in simple past tense. *Journal of English Pedagogy and Applied Linguistics (JEPAL)*, 4(2). <https://doi.org/10.32627/jepal.v4i2.876>
- Rahmah, A. M., Apud, & Amalia, I. (2023). Using Speedy English Grammar in learning English grammar. In *Proceedings of the 2nd Annual International Conference on Islamic Education and Language (AICIEL 2023)*.
<https://ftk.uinbanten.ac.id/journals/index.php/aiciel/article/view/9712>
- Refat, N. (2022). *IMPACT OF UTILISING A MULTIMEDIA-BASED TENSE TOOL ON STUDENTS' MOTIVATION, COGNITIVE LOAD AND LANGUAGE LEARNING EXPERIENCE NADIA REFAT DOCTOR OF PHILOSOPHY UNIVERSITI MALAYSIA PAHANG*.
- Richards, J. C., & Renandya, W. A. (2022). *Methodology in Language Teaching An Anthology of Current Practice*. 1–30.
<https://doi.org/10.13140/RG.2.2.36344.72962>
- Ulviani, M. (2025). The Impact of Error Feedback on Students' Writing Accuracy in Indonesian Language Learning. <https://doi.org/10.21203/rs.3.rs-7625125/v1>
- Vu, P. T. (2024). Using Grammarly in Enhancing Students' Grammatical Accuracy in English Writing: A Case at a Private College in Hanoi. *Proceedings of the AsiaCALL International Conference*, 6, 81–96.
<https://doi.org/10.54855/paic.2466>
- Zalfa Maharani, R., Dian Danayanti Degeng, P., & Azwar Razali, K. (2024). THE USE OF MOBILE ASSISTED LANGUAGE LEARNING TO IMPROVE ENGLISH GRAMMAR FOR SENIOR HIGH SCHOOL STUDENTS. *JOLLT Journal of Languages and Language Teaching*, 12(3), 1455–1466.
<https://doi.org/10.33394/jollt.v%vi%i.11041>