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INNOVATION IN ACTION: TURNING IDEAS INTO REALITY

Chapter 31
EGGA 3.0 - Mastering English Grammar through Self-Directed Mobile Learning

Abdul Hadi Abdul Talip, Lilly Metom, Sueb Ibrahim, John Francis Noyan & Zubaidah Bohari

Universiti Teknologi MARA Sarawak Branch

lillymetom@uitm.edu.my

ABSTRACT

EGGA 3.0 (English Grammar Guide App 3.0) is an upgraded and improved version of the innovative mobile application for learning English grammar. This self-directed mobile learning app is developed as a tool to help learners master fundamental English grammar concepts independently. The application provides structured learning materials, focusing on five grammar categories: Parts of Speech in English, Tenses, Subject-Verb Agreement, WH-Questions, and Modals, which are organised on a digital bookshelf. Each category has clear and detailed notes with simple examples to make learning easier. After reading the learning material, learners can test their understanding by taking quizzes with multiple-choice questions. These quizzes do not have a time limit, but responses have to be entered in sequence, and only one attempt per question is allowed. The learners will receive an instant report with their score and grade once the quiz is completed. EGGA 3.0 enhances learning by fostering autonomy, providing instant feedback to the learners, and stimulating their interest through interactive material. As such, grammar becomes easy, fun, and effective for mobile device learners. This method helps students connect with the information in a meaningful way and pushes them to keep working on the grammar exercises. EGGA 3.0 offers a fun and personalised way to learn English grammar skills. This mobile app provides easy access to language resources, allowing learners to practise anywhere. In addition to classroom teaching, EGGA 3.0 offers a more casual way to learn language, which makes it more fun and useful for students. It leverages mobile technology to enhance engagement and accessibility in language learning. Based on the learners' feedback, the high mean scores showed that the users were satisfied with EGGA 3.0's overall multimedia elements, namely, its graphics, sound, textual content, interface, and usefulness. EGGA 3.0 was able to attract the learners' attention, and they displayed a desire to know more about the grammar learning app. Therefore, employing EGGA 3.0 for grammar learning may inspire students to develop and acquire their grammar abilities, offer a pleasant and dynamic learning environment for them, and give them a way to measure their own degree of grammatical knowledge.

Key Words: EGGA, English grammar, mobile-assisted language learning, grammar learning, self-directed assessment

1. INTRODUCTION

Mobile technology has changed education by allowing learning anytime and anywhere through mobile learning (M-learning). Mobile-assisted language learning (MALL) uses personal devices to give learners constant access to language resources (Fan et al., 2023; Kukulska-Hulme & Shield, 2008). MALL offers flexibility, personalisation, and social interaction, making language learning more appealing by combining mobile devices with online tools. To take advantage of these benefits, this paper presents the English Grammar Guide Application 3.0 (EGGA 3.0), an improved mobile application that focuses on teaching English grammar in a fun and effective way. The app aims to make grammar learning more enjoyable and help learners improve their skills more efficiently.

EGGA 3.0 is an improved mobile application that learners can use to learn fundamental grammar skills and assess their learning performance themselves. It is intended to be used as a self-directed assessment tool. By using the mobile platform, students can access study resources and take quizzes on Android-powered tablets or mobile devices (Figure 1). Parts of Speech in English, Tenses, Subject-Verb-Agreement, WH-Questions, and Modals are the five learning material categories that are currently offered in the learning app, which are arranged on a digital bookshelf (Figure 2). There are thorough, brief notes with straightforward examples for every category. After completing the self-instruction phase, students can take an exam to gauge how well they have understood the five grammatical categories on their own. Each category contains multiple-choice questions. After taking the quiz, a brief performance report with the score and grade will be shown (Figure 3).

Figure 1: EGGA 3.0 Mobile App

Figure 2: The digital bookshelf – My Mini Library

Figure 3: The quiz score and grade

2. LITERATURE REVIEW

The way grammar is taught in language learning has changed a lot over time. In the early 1900s, grammar became popular again in schools, but later on, teachers started focusing more on teaching grammar through writing instead of just memorising rules (Hammond, 2023). The old way of teaching grammar did not motivate students much, so new, more interesting methods were developed (Lin, 2022). One important change is the use of the

communicative language teaching approach, which helps students speak fluently and communicate well (Frederick, 2015). Also, using educational tools has made learning grammar more active and creative for both teachers and students (Tu, 2022). Today, because many people use mobile devices, teachers are adopting mobile learning to help students improve their grammar skills (Ganapathy et al., 2016). Research shows that students like using mobile apps for learning grammar. For example, Solibar (2019) found that students improved their grammar after using a mobile app. The app helped them learn in a fun and meaningful way. Solibar (2019) suggested that mobile apps should be used for all grade levels to make learning more interesting and less stressful. It is also important that students use grammar in real conversations, not just memorise rules.

3. METHODOLOGY

A total of 54 students from UiTM Sarawak participated in this study. Their ages ranged between 18 and 24 years. The sample included diploma and degree students in their first and second semesters, drawn from various academic disciplines such as engineering, fine arts, agriculture, architecture, sports science, accounting, computer science, and business to ensure diverse representation. The participants were nominated by their class lecturers, who had been briefed by the researchers on the operation of the mobile application used in the study. Selection criteria included their roles as class representatives, varying levels of English proficiency (from average to advanced), and availability to participate. After trying the mobile app, the participants gave their feedback in a prepared questionnaire.

The study employed the Usability Instrument questionnaire, chosen for its strong validity and reliability, with a Cronbach's Alpha of 0.972 indicating high internal consistency. The instrument comprised three sections: (1) Respondents' Profile, (2) Evaluation of Multimedia Elements, and (3) User Satisfaction. Responses were measured on a five-point Likert scale, with satisfaction levels determined by the mean scores of each item, following the approach outlined by Landell (1997).

4. RESULTS & DISCUSSION

4.1 Results

The participants evaluated EGGA 3.0 based on several multimedia components: graphics, sound, interactivity, text, interface, and overall usefulness. The feedback was overwhelmingly positive across all categories, as follows:

- Graphics: Respondents appreciated the attractive colour scheme, clear visuals, and easy-to-understand explanations.
- Sound: The audio elements were rated highly for clarity, appropriateness, timing, and relevance.
- Interactivity: Users found the interactive features intuitive, easy to navigate, consistent, and well-designed, with an appropriate number of buttons and links.
- Text: The textual content was considered clear, concise, and easy to follow.
- Interface: Participants praised the user-friendly design, clear instructions, well-organised information, and helpful visual feedback.

- Usefulness: The application was seen as a valuable tool for learning, practising, and revising English grammar. Users also found it motivating and enjoyable.

Table 1 shows the mean scores and standard deviations of all the multimedia elements in EGGA 3.0. The overall analysis revealed that all multimedia elements in EGGA 3.0 received high mean scores ranging from 4.34 (SD=0.613) to 4.61 (SD=0.603). The results suggest that the participants were generally satisfied with all the multimedia elements in the mobile app, highlighting the effectiveness of the software in supporting English grammar learning and providing a positive user experience.

Table 1: The mean scores of all of the Multimedia Elements in EGGA

Items	N	Mean	Std. D
Graphic	54	4.49	0.515
Sound	54	4.34	0.613
Interactivity	54	4.46	0.531
Text	54	4.60	0.610
Interface	54	4.44	0.680
Usefulness	54	4.61	0.603
Valid N (listwise)	54		

4.2 Discussion

The positive feedback from the 54 participants highlights the effectiveness of EGGA 3.0 as a learning aid for improving English grammar. The high ratings across all multimedia elements suggest that the app successfully combines engaging visuals, clear audio, and interactive features to create an enjoyable learning environment. Particularly notable is the usefulness of the self-assessment exams, which allow learners to monitor their progress and identify areas for improvement. This feature supports personalised learning and encourages active engagement, which are key factors in language acquisition. Moreover, the intuitive interface and well-organised content make the app accessible to a wide range of users, including those who may not be tech-savvy. By providing a flexible, on-the-go learning experience, EGGA 3.0 complements traditional classroom instruction and helps learners practise grammar anytime and anywhere. In conclusion, the EGGA 3.0 mobile application demonstrates strong potential as a practical and motivating tool for English language learners. Its effective multimedia design and interactive features contribute to a positive user experience and support successful grammar learning outcomes.

5. CONCLUSION

The evaluation of EGGA 3.0 shows that it is an effective and user-friendly tool for learning English grammar. Participants responded positively to its multimedia components, including graphics, sound, interactivity, text, and interface design. The app's self-assessment exams and engaging features make grammar practice accessible, motivating, and enjoyable. Overall, EGGA 3.0 demonstrates strong potential to enhance English language education through innovative mobile technology.

6. RECOMMENDATION

Future research should explore the long-term effectiveness of EGGA 3.0 in improving English grammar proficiency over extended periods. Studies could investigate how consistent use of the app impacts learners' grammar skills compared to traditional classroom methods or other digital tools. In addition, research could also examine the app's usability and learning outcomes across diverse learner groups, including different age ranges, language backgrounds, and proficiency levels. Incorporating qualitative methods, such as interviews or focus groups, may provide deeper insights into user experiences and motivation.

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