Harnessing uLesson - Mobile E- Learning Application to Improve Students' Performance in English Grammatical Structure: Implications for Digitalizing Second Language Teaching

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Abstract

The poor performance of students in English Language and English Grammatical Structure in particular (as a component of English Language) in public examination in Nigeria is alarming and calls for concern. This may be so because of the role(s) of English Grammatical Structure in the overall performance of students in the subject. Thus, this study investigated the effects of uLesson - mobile learning application on students' performance in English Grammatical Structure in Obanliku Local Government Area, Cross River State, Nigeria. The study was carried out to determine whether uLesson - mobile learning application as a digital tool for second language teaching would improve students' performance in English grammatical structure. The study adopted quasi-experimental design that involved pre-test, post-test and control groups. One research question guided the study while one hypothesis was formulated and tested. A sample of 68 students were drawn from two secondary schools in the area. One intact class was used for the experimental and control groups. The instrument for data collection was English Grammatical Structures Performance Test (EGSSPT). The instrument was validated. The study question was addressed using the mean and standard deviation. Data collected for the hypothesis were analyzed using Analysis of Covariance (ANCOVA) at the 0.05 level of significance. A single hypothesis was examined at the significance level of 0.05. The result revealed that uLesson - mobile learning applications had significant effects on students' performance in grammatical structure. It was concluded that mobile learning applications is an effective technological tools that motivates secondary school students in mastering the core curriculum, renewed their confidence in learning and improved their performance in English grammatical structures. It was recommended that, mobile learning applications should be integrated as technological tools in the teaching/learning of English grammatical structure to enable students improve in their learning of English Language.

Keywords: Mobile learning applications, uLesson- mobile learning application, English grammatical structure, digitalizing second language teaching

Introduction

In this 21st Century, technology has been integrated in the teaching and learning process to aid the students to acquire the required knowledge. This is because of the huge potentials that Information and Communication Technology (ICT) has in improving knowledge acquisition by the leaners.

Thus mobile applications being part of ICT upshoot has a lot of bearing in teaching and learning in the world of today. Mobile applications are software explicitly designed for use on small, wireless computing devices such as smartphones and tablets instead of laptop and desktop computers. The mobile applications are suffused with information and skills of all sorts such as learning, teaching, exercising, among others for human growth and development. Mobile applications especially smartphones, are accessible to people of all levels including students. One of such mobile applications learning aid found in these application is uLesson.

uLesson is an online learning application specifically designed for secondary school students. It has the features that provides high-quality and interactive learning that also allows learners to go at their own pace. uLesson is a mobile learning application program that is usually installed on mobile devices (smartphones and tablet computers) to facilitate learning and improve academic performance. uLesson has the potentials to motivate students for the enhancement of positive academic performance. Badmus (2022) notes that with uLesson, learners have mastered the core curriculum, improved their test scores, and renewed their confidence in learning. This implies that uLesson mobile application is an effective ICT tool that improve students' learning and skills in modern classroom.

The new age of technological development has ushered in and improve leaning through mobile smartphones among other devices as against the primitive ways of disseminating Information and skills to learners. Apuke and Iyendo (2017) and Iyendo and Halil (2015) found that this technology has reshaped the educational practice in terms of improving academic learning and will be more feasible in the future. Thus, for a better understanding of English Language and English Grammatical Structures in particular, mobile learning application is necessary. English language is one of the second languages in Nigeria that is central and dynamic in its usage. Due to the country's (Nigeria) linguistic diversity, English serves as the lingua franca to make communication simple and accessible at all levels of human activity and social interaction. It is the medium of instruction in schools at almost all the levels. In support of the above assertions,

Timothy (2016) states that English language is not only serving educational purpose but also political, commercial and sociocultural purposes. This implies that English is playing a vital role in the development of the society in terms of education, political, economy, religion and the likes. It is not a surprise as Mahboob and Elyas (2014) have rightly called it a topic 'loaded with political, religious, social, and economic overtones'. Though English language is very vital for educational and social mobility in Nigeria, the performance in all the levels of education, especially secondary school level is still at wobbling stage. This is evident in the WAEC result. The pertinent question is; what is causing the poor performance? Could it be incompetence in the traditional way of teaching and learning grammatical structure?

Grammatical structure is one of the aspects of English Language that is of interest to the researcher and vital for the improvement of students' learning of the language. Alvarez (2017) notes that English grammar is one of the English language competences consisting of a system of language which must be comprehended and mastered by English language students. According to Nelson and Greenbaum (2015), grammar refers to some set rules that allow speakers to combine words in their language into larger units. Grammar is the study of words and the ways words work together; an invisible force that guides individuals as they put words together into sentences. The focus on English learning should be on raising awareness of the importance of grammar training, particularly among English language teachers who use grammar instruction. Richards and Reppen (2014) opined that grammar teaching has gained its rightful place in the language curriculum. People now agree that grammar is too important to be ignored, and that without a good knowledge of grammar, learners' language development will be severely constrained (p. 145). This implies that grammar is central to the learning of language since its concern with the study of how words work.

The senior secondary school English curriculum reflects the English grammatical structures to have the topics and text items which include present, future and past tenses, adjective, adverb, question tags, adverbial clauses, countable and uncountable nouns, active and passive verbs forms, intonation, among others. Apart from their text item forms, these items are replete in all aspect of

English language learning experience in classroom. For instance, in essay and letter writing, mechanical accuracy is always on check to observe their proper usage in sentence construction and verb concord among others. All this give credence to the importance giving priority to the learning of English grammatical.

Some previous researches have shown that mobile learning application is one of the ICT tools that enhance the teaching and learning of English Language. The use of ICT devices in the teaching and learning process also help the learners to acquire the necessary skills that is needed in real life situation. There have been intense global campaigns for the introduction of Information and Communication Technology (ICT) for the utilization of e-learning resources in the teaching – learning process (Owulu et al 2016). This implies that the desired quality of education can be improve through the use of technology since it enables teachers to use creative instructional approaches to teach students.

There is no doubt that the number of mobile cellular network subscribers is on the increase and the role the network technologies are playing in shaping and improving lives is appreciated by its users. McQuiggan et al (2015) found that mobile technologies transform our daily lives in ways such as connectivity, communication and cooperation. Mobile devices (specifically smartphones and tablet computers) aim to change the way of learning and teaching methods innovatively (Kuzu, 2014). McQuiggan et al (2015) defined mobile learning as instant and optionally accessible, anywhere and anytime learning, which helps us create our knowledge, satisfy our curiosity, collaborate with others and enrich our experiences.

The use of information and communication technology (ICT) creates a powerful learning environment and it transforms the learning and teaching processes in which students deal with knowledge in an active, self-directed and constructive ways (Volman & Van Eck, 2001). Students were not only to acquire an in-depth knowledge of their school subjects but also to understand how they can generate new knowledge, using information and communication technology (ICT) as a tool (Sanmi, 2016).

The Nigeria national policy for information technology (FRN, 2001) emphasizes the need for the implementation of ICT tools in education for three major objectives viz:

- to empower the students with ICT skills.
- to prepare the students for competitiveness in a global environment, integrate ICT into the mainstream of education and training and;
- establishment of multifaceted ICT institutions, as centres of excellence.

The mobile learning applications are programs usually installed on mobile devices (smartphones) to facilitate learning and improve learning. Globally, "People around the world have adopted this new and exciting technology as one of the most important required facility in their everyday life" (Fawareh & Jusoh, 2017). The explosion of smartphones and its related devices has greatly transformed teaching and learning in developed nations where developing nations are not the exception (Tagoe, 2014). This implies that the use of mobile learning through smartphones is changing the chalkboard classroom to the technological advance one for conducive learning environment.

Several recent empirical studies have examined the academic effectiveness of mobile learning (m-learning) applications, particularly in enhancing student engagement, knowledge retention, and academic achievement. The findings across various contexts suggest that mobile learning applications are significantly effective in improving academic outcomes, for instance Demir and Akpinar (2018) carried out a study on the effect of mobile learning applications on undergraduate students' academic achievement, attitudes toward mobile learning and animation development levels in Turkey. Quasi-experimental design was used in the study. Participants of the study were students of the Buca Faculty of Education at Dokuz Eylul University in Turkey. The experiment was conducted during the first semester of 2013-2014 academic year. A mobile learning-based strategy was used in experimental group ($n = 15$), while the control group participated in a lecture-based classroom ($n = 26$). An attitude scale was used to measure the

students' attitudes toward mobile learning, and achievement test was used to examine the effect of mobile learning applications on the students' achievement.

In order to evaluate the animations developed by students, a rubric was used. For exploratory analysis, interviews were conducted with students. The findings suggest that mobile learning may promote students' academic achievement. Both groups had significantly high attitude scores toward mobile learning. Furthermore, the students appreciated mobile learning as an approach that may significantly increase their motivation.

In a similar study conducted by Owulu, Ntamu and Monity (2016) on ICT Utilization and Students' academic performance in Christian Religious Studies in Calabar Municipality, Nigeria. The researchers employed a survey research design. The population comprised all the 6,567 Christian Religious Studies students in Senior Secondary School, class two (SS2) in Calabar Municipality in Cross River State. The sample of the study was made up of 411 SS2 students offering Christian Religious Studies from ten secondary schools in the area. A Questionnaire titled "ICT Utilization and Students' Variable Questionnaire" (IUSVQ) and a 20 item CRK Achievement Test (CAT) were designed by the researcher for data collection. The data were analyzed through the use of simple regression analysis. The result showed that, the correlation coefficient of .832 is significant at .05 level. It is also noticed that the correlations between ICT utilization and academic achievement are positive (which implies significant positive relationship). The positive correlations imply that as e-learning resources utilization increases, academic achievement increases and vice versa.

In a study carried out by Deebom and Zite (2016) on effectiveness of Information Communication Technology (ICT) in Teaching and Learning in Public Senior Secondary Schools in Ogoni Area, Rivers State. The researcher employed descriptive survey design. The population consisted of all Senior Secondary Two (SS2) Students and teachers in the twenty (20) selected Public Senior Secondary Schools in four Local Government Areas of Ogoni, Rivers State. The sample of the study was made up of 300 students and 100 teachers totaling 400 respondents. Simple

random sampling technique was adopted for the study in the selection of sample. Questionnaire titled "Questionnaires for Teachers/Students' Effectiveness on Information and Communication Technology Utilization in the Classroom (QTSEICTUC)". The data were analyzed through the use of statistical mean and standard deviation. The result showed that teachers and students in Ogoni Area of Rivers State are not utilizing the e-learning resources in the teaching and learning processes in senior secondary schools. The researchers concluded that e-learning resources are not extensively utilized in senior secondary schools in the area of this study because of the constraints to effective utilization of e-learning resources such as incessant power failure, high cost of acquisition of ICT facilities and shortage of trained qualified personnel.

Bawa and Bagudo (2020) carried out a study on the effects of mobile instructional app on undergraduate students' academic performance in Economics in Sokoto State, Nigeria. The study found among other that the app was academically effective. There was significant difference in the achievement of the undergraduate students exposed to mobile instructional app and those taught using blended approach (F (1, 58) = 13.649, p. A study by Odeh, Ezugwu, and Ugwu (2023) in Nigerian tertiary institutions found that students who used mobile learning applications (e.g., Google Classroom, Moodle mobile app) had significantly higher academic performance than those relying on traditional face-to-face learning methods. The study attributed this improvement to the flexibility, multimedia resources, and instant feedback available via mobile platforms. In their quasi-experimental study, Ali, Ullah, and Khan (2023) conducted research among undergraduate students in Pakistan using mobile apps such as Edmodo and Kahoot. The findings revealed increased engagement and participation, leading to improved test scores and better retention of course content compared to the control group.

Adu and Adebayo (2022) investigated mobile learning in secondary schools in Ghana and found that the use of applications such as uLesson and Khan Academy allowed students to learn at their own pace, which led to a significant improvement in mathematics test results. The study emphasized the role of personalized feedback in enhancing student learning outcomes. A study by

Chen et al. (2024) in Taiwan examined the impact of mobile-assisted language learning (MALL) using the Duolingo and HelloTalk apps. The experimental group demonstrated higher motivation and achievement in English language tests compared to the control group, with a significant p-value of < 0.05. Ibrahim and Ahmad (2023) conducted a mixed-method study in Malaysian universities, reporting that mobile learning applications supported students with different learning styles and needs, leading to improved academic performance across disciplines such as engineering, business, and education.

Research problem

The researchers' observations and findings revealed the poor performance of students in English Language in Obanliku Local Government Area. This observation calls for serious attention. The worry expressed by West African Examination Council (WAEC) Chief Examiners on English Language show that for the past five years, students' performance keeps dwindling in Public Examination. The report revealed that the results of English Language in West African Examination Council (WAEC) 2018 - 2022shows the percentage pass of 54.59%, 64.18%, 81.7% and 76.36% respectively. The improvement in some years is not much. One expects at least above average or excellence performance. Some critical comments made in the report centered more on students' weakness in the area of structural format construction of loose sentences and abuse of the basic rules of grammar. The reports further revealed that many students exhibit poor knowledge of grammatical rules, have difficulties in presenting their answers in simple and correct English language, faulty sentence constructions, wrong spelling of words, wrong use of adjectives, inappropriate use of verbs, poor knowledge of the use of tenses, indiscriminate use of capital letters and wrong use of punctuations like question marks.

This shows that many students still have a limited understanding of grammatical conventions. Such worrisome comments on students' failure in the public examination seem to point accusing finger at the English Language. This is because English Language teachers have not integrated technological tools such as mobile learning applications in teaching the subject. In view

of this, the researcher is interested to find out the reason(s) for the poor performance in English Language, in other words, the researcher wants to find out if uLesson - mobile learning application has effects on students' performance in English Grammatical Structure. It is against these backdrops that the researcher deemed it fit to determine the effects of uLesson - mobile learning application on secondary school students' performance in English

Research question

What is the difference in the mean scores of students taught English grammatical structure using uLesson mobile learning applications and those taught using conventional strategies?

Research Hypothesis

There is no significant difference in the mean scores of students taught English grammatical structure using uLesson - mobile learning applications and those taught using conventional strategies.

Material and methods

The participants of the study are Senior Secondary School two (SS2) students in the public secondary schools in Obanliku, Local Government of Cross River State. The study adopted quasi-experimental design that involved pre-test, post-test and control groups. A sample of 68 students was drawn from two secondary schools in the area. The teaching covered six (6) weeks concurrently with the mobile learning-based strategy using uLesson - mobile learning application on English grammatical structure in one intact class was used for the experimental group (n = 30), while one intact class for the control group participated in a conventional method (n = 38). The instrument for data collection was English Grammatical Structures Performance Test (EGSPT) to measure students' performance in English Grammatical Structure. The test had twenty (20) items covering English grammatical structure. The instruments were validated by experts by Language Education and Measurement and Evaluation experts respectively. The reliability coefficient of EGSPT yielded a high-reliability coefficient of .79 and it was obtained via Cronbach alpha

reliability. The content validity was determined using tables of specification which guided the development of the items for the performance test

Implementation of uLesson in the experimental group

1. Selection and Orientation Phase

- Student Selection: SS2 students with similar academic backgrounds and baseline test scores in English Language were selected from a public secondary school. They were randomly assigned to either the experimental group (uLesson) or control group (conventional teaching).
- Orientation Session: The experimental group underwent a one-week orientation on how to use the uLesson app, including how to:
    - Navigate lessons
    - Access grammar modules
    - Engage with quizzes and assignments
    - Use the offline content download feature
- Device Provision: Students were provided with smartphones or tablets (those that did not already own one), preloaded with the uLesson app and relevant data bundles to enable uninterrupted access to the learning content.

2. Weekly Instructional Delivery through uLesson

Each week followed a structured lesson plan aligned with the grammatical topics in the SS2 English Language curriculum.

Week-by-Week Breakdown

Week 1 – Parts of Speech

- uLesson Content Accessed: Interactive videos explaining nouns, verbs, adjectives, etc., with Nigerian examples.
- Learning Activities:
    - Watch explainer animations

- Complete auto-graded quizzes on identifying parts of speech in sentences
- Participate in reflection prompts (e.g., "Create five sentences using different parts of speech")

Week 2 – Subject-Verb Agreement

- uLesson Content:
  - Concept videos demonstrating agreement rules using real-life conversation simulations.
- Learning Activities:
  - Exercises involving error correction in subject-verb mismatches
  - Peer collaboration through app-based forums moderated by the teacher

Week 3 – Tenses and Their Usage

- Content Used:
  - Video series on present, past, and future tenses
  - Visual timelines embedded in lessons to show tense changes
- Practice Tasks:
  - Fill-in-the-blank exercises
  - Short paragraph writing assignments submitted via the app

Week 4 – Sentence Types and Structure

- uLesson Resources:
  - Charts and animations showing simple, compound, and complex sentence forms
  - Model questions with instant feedback
- Activities:
  - Sentence construction tasks
  - Identify sentence types from sample passages

Week 5 & 6 – Concord and Punctuation

- Digital Lessons:

- Video sessions and drill practices on punctuation marks and their placement

- Interactive Practices:
  - Grammar games (e.g., punctuation drag-and-drop)
  - Peer review of punctuation in short passages

3. Teacher's Role in Facilitating uLesson Integration

- Blended Facilitation:
  - Although the primary instruction was delivered through uLesson, the teacher acted as a facilitator, ensuring students followed through lessons and completed assessments.
  - Weekly virtual check-ins (via WhatsApp or Google Meet) were conducted to address challenges and reinforce grammar rules.
- Feedback and Monitoring:
  - Teachers used the uLesson dashboard to track students' progress, time spent on modules, and performance analytics.
  - Students with low scores were offered personalized remedial tasks via the app.

4. Assessment and Evaluation

- Formative Assessment:
  - Weekly in-app quizzes and assignments were graded automatically.
  - Interactive feedback helped students learn from mistakes immediately.
- Summative Assessment:
  - At the end of the 5-week intervention, both the experimental and control groups were administered a standardized English Grammatical Structures Performance Test (EGSPT).
  - Results were compared to evaluate the effect of the uLesson intervention.

5. Observed Outcomes

- Improved Engagement: Students reported increased motivation due to the app's gamified quizzes and video-based content.
- Enhanced Performance: Experimental group showed significant improvement in grammar tests compared to the control group.
- Self-Paced Learning: Learners appreciated being able to replay videos and revisit topics at their own pace.

Overall, the uLesson mobile application provided a flexible, engaging, and interactive platform for SS2 students to master English grammatical structures. Through structured weekly lessons, embedded quizzes, multimedia resources, and real-time feedback, the app not only supported cognitive understanding but also enhanced learners' confidence and grammatical accuracy. The experiment demonstrated the potential of mobile learning technologies in supplementing traditional English instruction, particularly in resource-limited settings.

Results and Discussion

Mean and Standard Deviation were used to answer the research questions while Analysis of Covariance (ANCOVA) was used to analyze collected data for the hypothesis at 0.05 level of significance.

Research question

What is the difference in the mean scores of students taught English grammatical structure using mobile learning applications and those taught using conventional strategies?

To answer this research question, descriptive statistics was employed, and the result presented in Table 1. The result presented in Table 1 revealed that the mean scores of students taught English grammatical structure using mobile learning applications (7.6667) is greater than the mean gain score of learners' who are taught with conventional method (3.5556). This implies that students taught English grammatical structure using mobile learning applications has greater effects on English grammatical structure than those taught with conventional method.

Table 1: Mean of pre-test and post-test scores of the of use mobile learning applications in English grammatical structures in the treatment and control groups

Treatment groups	N	Pre-test mean scores	Post- test mean scores	Mean gain scores
Mobile learning	30	7.3333	15.0000	7.6667
Conventional method	36	6.1111	9.6667	3.5556

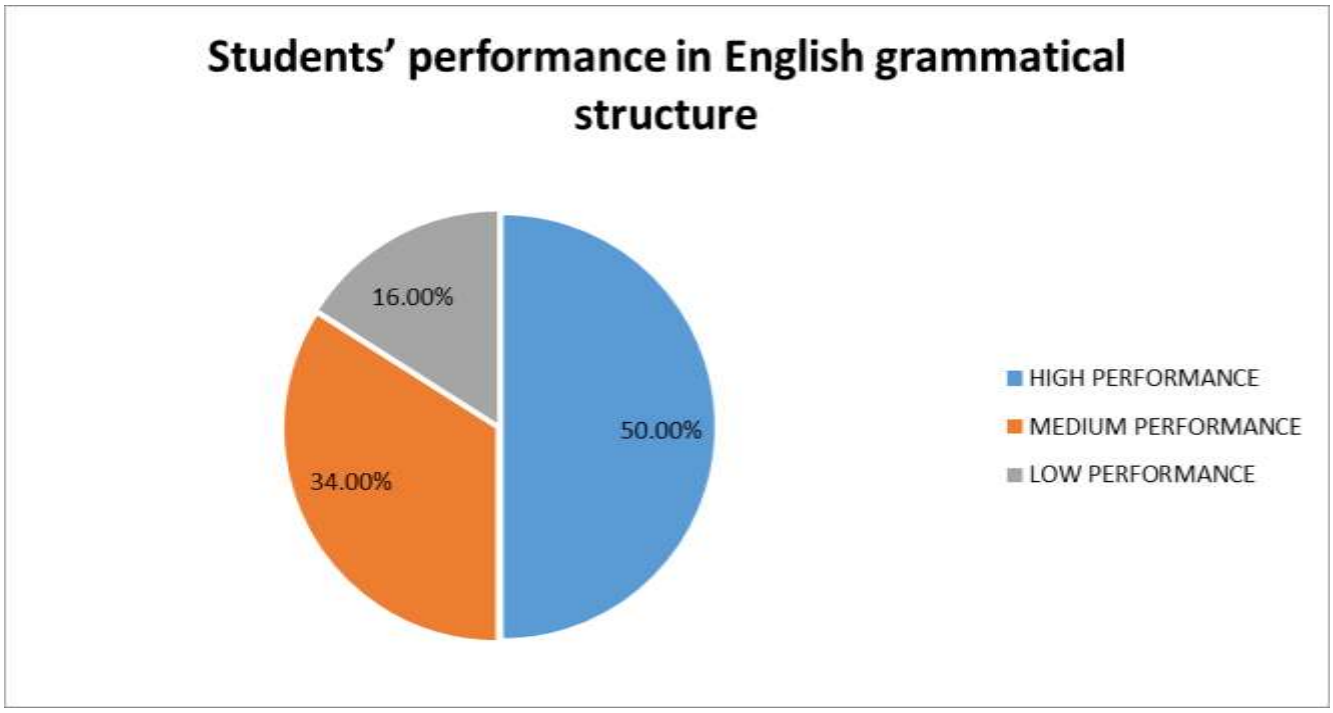

Figure 1: Pie chart showing level of students' performance in English grammatical structure when using uLesson mobile learning application

Research hypothesis

There is no significant difference in the mean scores of students taught English grammatical structure using mobile learning applications and those taught using conventional strategies.

To test this research hypothesis, Analysis of Covariance (ANCOVA) was used to analyze collected data for the hypothesis at 0.05 level of significance. The results presented in Table 2 below shows that there is a significant difference in the mean scores of students taught English grammatical structure using mobile learning applications and those taught using conventional strategies (F=157.100: p=.000). Therefore, the null hypothesis was rejected at .05 level of significance. The result also shows the partial Eta squared estimate which is a measure of effect size as .714. This implies that treatment accounted for 71.4 percent of variance observed in the post-test scores of mobile learning applications. Also the adjusted R squared value is .743. This suggest that about 74.3 percent of the variation in the dependent variable (mobile learning applications) can be accounted for or by difference treatment and pre-test.

Table 2: One-way Analysis of Covariance (ANCOVA) on the effect of treatment on students' performance in English grammatical structures

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	466.770[a]	2	233.385	95.053	.000	.751
Intercept	450.781	1	450.781	183.594	.000	.745
Pre-test	1.315	1	1.315	.536	.467	.008
METHOD	385.731	1	385.731	157.100	.000	.714
Error	154.685	63	2.455			
Total	10270.000	66				
Corrected Total	621.455	65				

a. R Squared = .751 (Adjusted R Squared = .743)

Discussion of findings

The result revealed that there was a significant main effect of treatment – using mobile learning applications on English grammatical structure. As shown in Table 2 indicates that there is a significant main effect of treatment. The improvement of students' performance in English

grammatical structures could be attributed to the motivation and interactions with the mobile learning applications. The finding is also in consonance with Demir and Akpinar (2018) who found that mobile learning promotes students' academic achievement and that students appreciated mobile learning as an approach that may significantly increase their motivation. The finding is in agreement with Bawa and Bagudo (2020) finding that mobile app was academically effective.

The finding is also in consonance with Owulu, Ntamu and Monity (2016) who found that the correlations between ICT utilization and academic achievement are positive (which implies significant positive relationship). The implication of this finding is that language teachers should use technological tools such as ULesson mobile learning application that would help the students interact with the leaning process. This would significantly boost students' performance in the topic by motivating and encouraging them to acquire English grammatical structure lessons.

The finding is in agreement with Odeh, Ezugwu, and Ugwu (2023) who found that students who used mobile learning applications (Moodle mobile app) had significantly higher academic performance than those relying on traditional face-to-face learning methods. The study attributed this improvement to the flexibility, multimedia resources, and instant feedback available via mobile platforms. The finding is also in agreement with Ali et al (2023) whose findings revealed increased engagement and participation, leading to improved test scores and better retention of course content compared to the control group. The findings supported Adu and Adebayo (2022) who found that the use of applications such as uLesson and Khan Academy allowed students to learn at their own pace, which led to a significant improvement in mathematics test results. The study emphasized the role of personalized feedback in enhancing student learning outcomes.

The findings also supported Chen et al. (2024) who found that the experimental group demonstrated higher motivation and achievement in English language tests compared to the control group, with a significant p-value of < 0.05. Support for Differentiated Learning Needs. The finding is in agreement with Ibrahim and Ahmad (2023) who found that mobile learning applications

supported students with different learning styles and needs, leading to improved academic performance across disciplines such as engineering, business, and education.

Conclusion

uLesson mobile learning applications is an effective technological tools that motivates secondary school students in Obanliku Local Government Area of Cross River State in mastering the core curriculum, renewed their confidence in learning and improved their performance in English grammatical structures. Students' achieve significantly better in English grammatical structures when they use and interact with mobile learning applications. It is evident from the study that the conventional strategies of teaching English grammatical structures could be improved upon through the use of mobile learning applications in order to improve their performance in English grammatical structures. The fact established in this study has it that, using mobile learning applications to teach students English grammar can help students acquire the language's basic building blocks more effectively.

Implications of the study for Teaching English as a Second Language

- The significance of incorporating technology into ESL training is highlighted by uLesson's success. To improve students' learning outcomes and experiences, educators should investigate and use a variety of digital tools and applications.
- The efficacy of uLesson implies that individualized instruction catered to the requirements and learning preferences of each student might result in better English grammatical performance. To accommodate a diverse student body, ESL teachers should work to deliver individualized education and make use of adaptive technologies.
- Students may learn at any time and from any location with the flexibility and accessibility of mobile e-learning apps like uLesson. Similar strategies can be used by ESL teachers by giving students access to tools and materials outside of the classroom, which will enable ongoing language practice and reinforcement.

- The impact of uLesson on pupils' mastery of grammar structure was probably influenced by its interactive elements. To actively engage students and encourage a deeper comprehension and memory of English grammar ideas, ESL teachers should include interactive exercises, tests, and multimedia content in their classes.
- The advantages of blended learning, which blends traditional classroom instruction with online learning resources, are demonstrated by uLesson's success. ESL teachers can create a more dynamic and productive learning environment by combining digital resources with in-person education.
- The effect of uLesson on student performance emphasizes how crucial continuous evaluation and feedback are to ESL training. To pinpoint areas for development and adjust training appropriately, teachers should routinely evaluate their students' grammar progress and give prompt feedback.
- Teachers may need professional development opportunities and training in order to successfully incorporate technology such as uLesson into ESL classroom. Investments in teacher training programs that emphasize integrating digital resources and optimizing their influence on student learning outcomes should be made by educational institutions such as schools.

Recommendations

Based on findings, it was recommended among others that:

- Educational policymakers and school administrators should formally integrate mobile learning applications into the English language curriculum at the secondary and tertiary levels. This integration can enhance student engagement, promote self-paced learning, and improve mastery of grammatical structures.
- Regular professional development workshops should be organized to equip English language teachers with the skills to effectively use mobile learning tools. Emphasis should

be placed on selecting appropriate apps, managing digital classrooms, and integrating mobile technology with traditional pedagogical methods.

- Rather than replacing conventional teaching entirely, a blended learning approach should be encouraged. This involves combining mobile learning applications with traditional classroom methods to maximize learning outcomes and cater to different student learning styles.
- To ensure equitable access and inclusion, schools and education ministries should invest in providing mobile devices and reliable internet connectivity to students, especially in underserved or rural areas. Partnerships with tech companies or NGOs could help reduce costs and improve accessibility.
- Education stakeholders should continuously evaluate the effectiveness of the specific mobile applications used in teaching grammar. Only evidence-based, pedagogically sound, and age-appropriate applications should be recommended for classroom and home use.

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