Mobile Assisted Language Learning (MALL) Approach in Teaching Literature for the Enhancement of Vocabulary Skills

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Abstract

The study employed experimental design focusing on the enhancement of vocabulary skills using Mobile Assisted Language Learning (MALL) Approach through Kotobee app in teaching Literature. Moreover, the major purpose of the study is to enhance the vocabulary skills of the students. The respondents of the study are the students belong to the pilot implementation of Alternative Learning System (ALS) program. These students are the passers of A&E test (high school level) in Alternative Learning System (ALS) and the graduates of old Basic Education Curriculum. Based on their Pre-test in different English subjects, it was found that 10 or 30% of the students obtained satisfactory grade and 20 or 70% of the students obtained fairly grade. In gathering the necessary data, the researcher used two-group pre-test and post-test research instrument to assess the vocabulary skills of the students. Based on the findings, the pre-test scores of the control group and experimental group showed that they found it difficult to distinguish the meaning of the vocabulary words. Furthermore, the factors that affect the performance of both groups are the gap year of the students, exposure to the language, and the intervention was not implemented. In addition, the post-test scores of the control group on the post-assessment decreases compared to their pre-test scores. The observed reason was absenteeism due to work and family responsibilities. While the post-test scores of the experimental group improved after the implementation of MALL approach except for prefix due to lack of basic digital skills. As a result, the students were challenged on how to navigate the application. The findings revealed that there is no significant difference in the pre-test and post-test of the respondents' vocabulary skills under control group. Whereas, there is a significant difference on the pre-test and post-test scores of the respondents' vocabulary skills except in synonym under experimental group. There is a significant difference between the pre-test and post-test scores of the students who were taught under experimental and control groups.

Keywords: Mobile Assisted Language Learning (MALL) approach; Kotobee Application; Vocabulary Skills

1. Introduction

Education provides a platform for everyone to develop and enhance their capabilities and skills, leading to employability and the nation's total economic growth. However, some individuals do not have a chance to finish formal education due to some reasons. As a result, the Philippine Constitution of 1987

recognizes and promotes types of education other than formal education. According to Article IV, Section 2, paragraph (1) states that the state shall establish, maintain, and support a comprehensive, adequate, and integrated system of education relevant to the needs of the people and society; and paragraph (4) concisely encourages non-formal, informal, and indigenous learning systems, as well as self-learning, independent, and out-of-school study programs, particularly those that respond to community needs.

To give people an opportunity to access and complete basic education as an alternative to formal schooling, the Governance Act for Basic Education, also known as Republic Act 9155, establishes the Alternative Learning System (ALS). The Accreditation and Equivalency (A&E) program for the Alternative Learning System (ALS) is crucial in achieving Education for All (EFA) 2015's goal of "Universal Coverage of Out of School Youth and Adults in the Provision of Basic Learning Needs." Through the assistance of the Local Government Unit (LGU) and Non-governmental Organizations (NGO), ALS will undoubtedly improve the economic status of the Filipino people (Fernandez, 2013). The Bureau of Non-Formal Education, also known as the Bureau of Alternative Learning System, advocates providing high-quality education to the "deprived, depressed, and underserved" Filipinos by Executive Order 356. The ALS was specifically created to increase the percentage of students who participate in school and are functionally literate (Fajardo & Walag, 2020).

According to Guerrero (2007), considerable developments in the field of non-formal education in the Philippines occurred at the turn of the century, including changes in the idea, approach, focus, and outcomes. Students require a new set of skills to make significant improvements in the field in a complicated and continually changing future given the characteristics of the new century (Craig, 2012). These abilities are known as 21st-century skills. To succeed in today's rich and global economy, 21st-century abilities are required, including the ability to handle complex problems, collaborate and communicate effectively with others, independently acquire new skills and information, and adapt to quickly changing conditions (Gewertz, 2008). It is a challenge for mobile teachers to assist students in understanding and learning 21st-century abilities that will allow them to adapt and compete globally.

In this case, governments from all over the world have offered and put into practice solutions to enable people obtain education through non-formal and informal education in order to meet the problems posed by the changing world and information economy (Colardyn & Bjornavold, 2004). The development of new approaches and innovations will lead to the improvement of learning among ALS learners.

The K–12 Basic Education Curriculum for Alternative Learning System (ALS K–12) Learning Strand 1 Communication Skills (English) aims to improve the ability of out-of-school youth and adults to access, critically analyze, and efficiently use the information that is available in a variety of media in order to: effectively function as a member of the family, community, nation, and the world; and actively participate in community and economic development. Tindowen et al. (2017), on the other hand, discovered that the learners' level of progress in terms of communication is poor. If the students' vocabulary is lacking, they encounter significant difficulties understanding important language components. Without sufficient vocabulary, people cannot communicate and express their feeling both in from of spoken and written effectively.

Similarly, vocabulary is a necessary skill for learning the five macro skills of reading, speaking, writing, listening and viewing. Abuhabil et. al. (2021) stated that English vocabulary is crucial to the study of languages. Also, it is the most complex and challenging aspect of English for non-native speakers to fully master.

Active learning occurs in literary classes when students participate. This will not happen in a literature class unless students express themselves clearly. The vocabulary skills of the learners should be taken into

consideration. Lack of proper vocabulary makes it harder for students to comprehend what they are reading, which causes them to read less because it is challenging for them. As a result of not reading broadly enough to encounter and learn new words, they learn fewer words. According to Nation and Coady (2013) as stated in the study of Faculan (2017), one of the aspects that assist readers to extract information from a text is vocabulary expertise.

Positively, technology has contributed toward a language that is efficient, authentic, and motivating experience in learning (Kessler, 2018). As a result, language teachers and students are increasingly using digital technologies more (Healey, 2018). Moreover, mobile device use in the classroom has also been the subject of studies on language learning because it requires autonomy and interaction, which are central ideas in mobile assisted language learning (MALL) (Korkmaz, 2010).

This study explores the mobile assisted language learning (MALL) to enhance learning vocabulary through Kotobee app in Alternative Learning System (ALS) learners.

1.1. Research Questions

This study was aimed to identify the effect of using Mobile Assisted Language Learning (MALL) approach to the enhancement of vocabulary skills among Senior High School Students in Alternative Learning System during the school year 2022 - 2023. The following research questions were addressed in this study:

1. What is the pre-test score of the vocabulary skills of the students in the control and experimental group in terms of:
   1.1. Context Clues;
   1.2 Synonym;
   1.3 Antonym;
   1.4 Prefix;
   1.5 Suffix
2. What is the post-test score of the vocabulary skills of the students in the control and experimental group in terms of:
   2.1. Context Clues;
   2.2 Synonym;
   2.3 Antonym;
   2.4 Prefix;
   2.5 Suffix
3. Does a significant difference exist between the pre-test and post-test scores of the students in the vocabulary skills under control group?
4. Does a significant difference exist between the pre-test and post-test scores of the students in the vocabulary skills under experimental group?
5. Is there a significant difference between the pre-test and post-test scores of the students who were taught under experimental and control groups?

1.2. Definition of Terms

The researcher defined the following terminology to aid in comprehending the study.

Alternative Learning System. It refers to a group of respondents in a non-formal education program that gives opportunities to learners who cannot go to formal schooling but are interested to finish basic education.

Comprehension. It refers to the ability of the respondents to understand the meaning or importance of something.

English. It pertains to the subject area of the respondents and serve as the focus in this study.

Kotobee App. It refers to the application used in the study to enhance the vocabulary skills of the students.

Kotobee Author. It pertains to the application where the researcher created the lesson.

Kotobee Reader. It pertains to the application where the students can open and view the lesson online or offline.

MALL. Mobile Assisted Language Learning: this refers to the approach in the study that uses any device or application that helps in learning the target language.

M-learning. This refers to mobile learning where students use technology that will help develop their vocabulary skills.

Mobile. This is a device used by the respondents that is portable: mobile phone, slates, mp3, mp4 and laptops.

Vocabulary Skills. These refers to the skills being tested such as context clues, synonym, antonym, prefix and suffix.

21st Century Literature from the Philippines and the World. This pertains to the subject being studied by the respondents which includes various dimensions, genres, elements, structure and traditions of the 21st Century Literature.

1.3. Theoretical Framework

The Russian psychologist Aleksei Leontiev's Activity theory served as the foundation for this study. The entire work activity is the unit of analysis in activity theory, and it is broken down into the analytical elements of subject, tool, and object. The subject is the person being studied, the object is the intended activity, and the tool is the mediating mechanism used to carry out the action. This theory investigates how human actions are influenced and evolved by their surroundings. Context defined as any information that can be used to characterize an entity's situation. An entity is any individual, location, or thing that is thought to be important to the way a user and an application interact, including the user and the application themselves.

This study develops the interactions between students and teachers facilitated by mobile technologies. Moreover, the use of mobile devices during activities can reduce student anxiety and speed up the learning process.

It was used in the study to demonstrate a potential link between student academic achievement and vocabulary skills by incorporating mobile devices in teaching. The theory was served as the foundation of the study.

2. Review of Related Literature

Philippine Alternative Learning System

In the Philippines, Alternative Learning System is called to be “other side of basic education (Nato & Arzadon, 2015).” However, there is still a perception that ALS offers low quality of education. Non-Formal Education programs generated alternatives in making education more flexible, participatory, transformative and responsive to the needs of the learners. These are the conditions that must be maintained and strengthened in order for education to be the "great equalizer" in a world that has become increasingly demanding and competitive as a result of globalization.

English Language Learning

Language-rich environments are required for second language learners so that they can organically practice language and construct grammar through input (Douglas, 2017). Learning a language in both formal and informal settings is essential for developing proficiency. "Multilingual learners use and develop language through activities that intentionally integrate multiple modalities, including oral, written, visual, and kinesthetics modes of communication," according to the WIDA's Guiding Principles of Language Development (2019).

Common Difficulties of Learning English Vocabulary

Abuhabil et al. (2021) revealed the linguistic challenges the students were having numerous ways to learn. Most of the students have difficulties in pronouncing the words, how to write and spell. As a result, students should be encouraged to figure out methods that are most useful for extending and preserving their vocabulary, such as using visuals, providing definitions, drawing, and providing feedback. Additionally, using role-playing to learn in groups or pairs has been developed for efficient vocabulary instruction. These strategies should be used by the teacher to help students learn language.

Problems Encountered in the ALS

Many studies have revealed that both ALS students and mobile ALS teachers face numerous challenges. One of the problems mentioned by Mercado (2015) students encountered difficulties with instruction, assessment, and evaluation. He also found out that there aren't enough classrooms or educational resources like manuals or textbooks. As a response, these issues must be addressed as soon as possible for the sake of the students. Since they are not regular students, they should be given special consideration. They are entitled to the proper education, so that they will have a brighter future.

History of MALL (Mobile Assisted Language Learning)

Every technological innovation contributes to existing applications, making them more efficient and convenient to use. Computer Assisted Language Learning (CALL) appears to be one of the most widespread methods of language learning that uses technology (Sen, 2022). CALL refers to computer-based language teaching and learning activities. However, CALL must keep up with the most recent needs and problems encountered by learners and teachers. Therefore, MALL has distinguished itself with features like ease of use and fostering ubiquitous learning by meeting needs of the learners. Mobile Assisted Language Learning (MALL) has been considered a subset of Computer Assisted Language Learning (CALL) (Klimova, 2019). MALL has been regarded as a digital technology and language learning offspring. Continuous access to a variety of learning contexts was found to be beneficial using MALL. In this regard, contexts for formal, informal, and blended learning might be used as examples.

Vocabulary

Vocabulary has been identified as an important component of second language learning in the classroom (Susanto & Fazlinda, 2016 cited in the study of Mauliza, et. al., 2019). Vocabulary demonstrates its significance in all language skills as a crucial component of the language element. Therefore, vocabulary is said to be the foundation of a language that should be studied first.

Given that languages are made up of words, teaching vocabulary is an essential part of learning a language (Alqahtani, 2015). Without words, it is nearly impossible to acquire a language; even human communication depends on words. Teachers struggle with how to instruct students in a way that produces satisfying outcomes. Moreover, teacher needs to get ready and determine the best approach to use with the students.

There are a variety of methods for teaching vocabulary. First, context clues strategy, context clues are guessing or determining the meaning of unknown words in a passage/text using words or phrases around them (Mauliza, et. al., 2019). This will help students develop their self-confidence so that they can figure out the meanings of words on their own. Context clues can be classified as synonyms and antonyms. Synonyms are words that have similar meaning while antonyms are words that have a general or specific opposite meaning, idea, or concept to another word, and each word may have multiple antonyms (Doàn, T. Q., 2020). If the synonym is more well-known than the word being taught, it may be utilized to help the students appreciate the various shades of meaning (Visnja Pavicic,2003 cited in the study of Abuhabil et. al., 2021). In addition, when one member of an opposite pair is understood, the meaning of the other can be understood with ease. This aids the students in comprehending the various shades of a word's meaning.

The lack of a vocabulary skills severely limits English learners' capacity to advance and achieve in their ability to grasp what they read and hear. Teachers should educate students such common roots and affixes in order to provide them a diverse vocabulary (Yurbatsi, 2015). A prefix is a word part that comes before a base word. It usually changes the meaning of the root word. A suffix is a word part comes after a base word. Learning suffixes and teaching students root words are both essential for enhancing students' overall reading comprehension skills so does learning suffixes also significantly expands students' vocabulary.

Use of Smartphones in Learning Vocabulary

In the present day, technology has a significant influence on people's lives. Han and Gurluyer (2017) found out that smartphones promote good thoughts and feelings for freshmen EFL students in terms of vocabulary learning. It can be said that the participants found smartphone-based EFL vocabulary acquisition to be useful, enjoyable, and effective. The results showed that there were significant differences between the pre-test and post-test perceptions of the participants towards the use of a smartphone application for vocabulary learning as a different technique. Because the participants are usually carrying their smartphones, they use them to learn terminology more easily and familiarly. The smartphone has unavoidably and swiftly become a necessary aspect of life since the beginning. As a result, the younger generation spends a significant amount of time on this device. From this perspective, mobile-assisted language learning offers a number of surprising advantages by utilizing a smartphone as a learning tool.

The Efficiency of Mobile Assisted Language Learning (MALL) in Vocabulary Learning

Istanbul (2020) examined Mobile Assisted Language Learning (MALL) using Memrise vocabulary learning application. The Memrise application aims to teach vocabulary in foreign languages and contribute to language development by helping retain the vocabulary studied. In his study, he used two separate classes the experimental and control groups. The Memrise application was installed on the phones of the experimental group. The experimental group used the Memrise application in addition to regular classroom instruction, while the control group only had regular classroom instruction. According to the findings of the study, the control group was more successful in the pre-tests than the experimental group. However, the experimental group showed very high success in post-tests compared to their pre-test results, while the control group did not increase

their success level. The only reason that the experimental group was more successful in the post-tests was the inclusion of a mobile vocabulary learning application in their language course. According to the results, the Memrise vocabulary learning application is influential in the learning process. The fact that the pre-test and post-test successes of the experimental and control groups were quite different led to the conclusion about how useful it would be to use such applications in language education. The use of mobile applications in addition to traditional teaching methods positively affected the success rate.

Mobile Assisted Language Learning in Older Adults

There is still a shortage of study on older individuals' adoption and usage of mobile technology to facilitate self-directed second language acquisition in an increasingly ageing, multilingual, and digitalized world. The study of Puebla, C. et al. (2022) investigated the extent to which seniors residing in Germany (aged 60) engage in mobile-assisted language learning (MALL) and the factors encouraging or discouraging them from using language learning apps by conducting a web-based survey (n = 208) and a series of in-depth individual interviews (n = 22). The findings demonstrate that despite participants' active involvement in language learning and significant online usage of digital technology, they were reluctant to fully grasp the potential of MALL. Self-perceived digital literacy and openness to new innovations are important determinants favoring the use of language learning apps in older adults, as resources, mobile devices, and other technology. To interpret these findings in light of theoretical perspectives on mobile learning and education among (older) persons it highlights the need of considering the unique needs of late-life learners in future language learning app implementations.

MALL as a Vocabulary Enhancement Tool

Abdelatif & Ahmed (2019) revealed that students who participated in the study were more likely to use their smartphones for learning vocabulary. Due to the widespread usage of mobile technologies and its accessibility from anywhere at any time, utilizing smart phones to study languages like English has therefore become a crucial learning priority. Most students can seldom be found without being in contact with their mobile devices, which they use in a number of ways. Students can improve their language skills by using dictionaries, learning apps, or even social media. It has been demonstrated that MALL as a learning tool may capture the interest of students since it is autonomous, modern, and simple to use, as well as capable of offering pedagogical ways of learning.

MALL on Vocabulary Acquisition

Van & Thanh (2021) revealed a statistically significant improvement on MALL employment increased learners' receptive language comprehension and vocabulary size when the exam was administered. During the intervention, students' perceptions and attitudes toward MALL changed vividly, particularly in terms of cognitive, emotional, and future activities. Almost two-thirds of students stated MALL improved their grades involvement in classroom activities as a result of the cognitive component. Thus, MALL is beneficial when used effectively, in an academic setting since it aids in the language acquisition process. Language learners who use portable devices can improve their learning capacity by using different apps. Furthermore, greater use of mobile devices and student data necessitates the implementation of mobile learning activities. As a result, educators must exercise caution when using MALL.

Mobile Learning and Mobile Assisted Language Learning

Cakmak (2019) presented a conceptual framework of MALL design principles and dimensions adopted from prior studies, explored the concept of MALL in conjunction with learning theories and problems, and then reviewed existing MALL studies. This study, with their extensive focus on MALL applications in language classes, surely add to the field of MALL research. Some of them emphasized the significance of

pedagogical awareness for m-learning participants such as learners, teachers, researchers, content developers, and designers.as well as the technological concerns that underpin efficient MALL implementations. Future MALL stuudy must provide a solid balance between instructional methods and technology possibilities in order to fully fulfill the potential of MALL. The framework of MALL design concepts and dimensions described in this study can aid in the development and realization of MALL applications.

Developing Interactive E-book

Yulianto (2022) developed an interactive e-book for Grade 10 students using Kotobee author application. The study employed ADDIE model in developing the e-book; analyze, design, develop, implement, and evaluation. Based on the expert judgement, this interactive e-book is categorized good in terms of content and display. The content allows the students to learn new thing with some activities and task. After implementation phase, the students feel the interactive e-book gives positive impact that helps them in learning English either at school or at home. The e-book gives benefits to the students in learning English related to descriptive text supported by the elements and the activities in it.

Using Kotobee Application an Interactive E-book

As cited in the study of Siano & Potane (2022) e-books are a collection of informational texts published in digital format for study (text, photos, graphics, audio, video, and/or animation. Although not all the students are proficient in using technology, e-books have several advantages including text and video display. It can improve how well students retain their lessons. Similarly, it was found out that using Self-Learning Module digital copies (interactive e-book) with the Kotobee reader app encourages satisfactory academic performance among students.

Furthermore, it was revealed that there was a statistically significant difference in how well students did on their tests before and after using Kotobee app. Students achieved higher scores in the posttest than in the pretest which implied that students gained better understanding after they were used to the digital copies of Self-Learning Material (SLM) via Kotobee interactive e-book.

Mobile-Assisted Language Learning and Its Effects on Learner's Speaking Development

Aliakbari & Mardani (2022) explored the effects of MALL on the speaking skills of the students the findings of the t-test revealed that there was no significant difference between the score of mobile learning and face-to-face classes in the pretest, while there was a significant difference between the two groups' scores in the posttest. Therefore, the study indicated that mobile learning classes were more effective than face-to-face classes in developing the learners' speaking skill.

The findings of this study demonstrated that learners who participated in mobile learning classes outperformed those who participated in face-to-face classes, and these classes had a beneficial impact on improving learners' speaking skill. It can be concluded that the students' progress in this skill was due to the privacy provided by mobile learning, which made it easier for the instructor to discover the individual's weaknesses and strengths by listening to the voices several times attentively. Another major factor in students' success with mobile learning was the number of opportunities for learners to access and utilize the vast amount of available material on the Internet for educational purposes and assignments.

However, problems regarding the effectiveness of MALL still continues since communication happens in a conversational setting.

3. Research Design and Methodology

3.1 Research Design

The study employed Quasi-experimental research design using two-group Pre-test- Post Test in particular. It is suitable for measuring variables to groups and compares the result before and after the treatment.

It was used to see if there was a significant difference on the utilization of mobile assisted language learning approach through Kotobee app for the enhancement of vocabulary skills among Alternative Learning System (ALS) learners.

3.2 Research Participants

The population of this study is composed of thirty (30) Grade 11 Senior High School students who are enrolled in Alternative Learning System. Since they belong to the pilot implementation of ALS Senior High, there were only 30 students in the school. These learners were passers of Accreditation and Equivalency Test and graduates of old Basic Education Curriculum. The age of the students ranges from 20-35 years old. Majority of them are working, married and had children.

3.3 Research Data Gathering Procedure

The respondents participated in the study for five (5) lessons in their 21st Century Literature from the Philippines and the World subject. The learning modality of the students was blended. The researcher met the respondents every Friday for the Face-to-Face learning and Modular learning every Monday to Thursday. Participants in the study were tested using different teaching approaches (experimental group, mobile assisted language learning approach; control group, traditional approach). The researcher provided a checklist of the respondents' mobile devices to make sure that all the learners in experimental group contributed in the study. Both groups took part with the same pre-test and post-test to see whether mobile assisted language learning approach using Kotobee app have positive effect on their vocabulary skills.

The study used Mobile Assisted Language Learning (MALL) Approach which deals with the use of mobile technology in language learning. The implementation of MALL approach is through the use of the Kotobee application. It is an interactive e-book wherein the students can access the lesson thru Kotobee reader. In the experimental group, the researcher made her lesson in Kotobee author app which contained image, gallery, link, anchor, questions, video, audio, audio sync, container widget, equation wherein the respondents accessed it through Kotobee reader app on their mobile phones during class. The contents of interactive e-book were based on the Most Essential Learning Competencies (MELCS) as prescribed by the Department of Education. Since the respondents were in blended learning modality, students can access and visualize video lectures and home works outside the classroom. They were able to read, watch, reflect and answer the lecture via mobile phones. While in the control group, the lessons were given in the traditional classroom, mainly includes teaching materials such as handouts, textbooks, pictures and chalk plus talk.

At the beginning of the study, the researcher administered pre-test to identify the vocabulary skills of the students. The test contains fifty (50) items for different vocabulary skills including: (1) context clues; (2) synonyms; (3) antonyms; (4) prefixes; and (5) suffixes.

After performing the treatment, they were given a parallel version of the pre-test but different content for the post-test to evaluate the impact of the treatment on them.

In gathering the data, the researcher performed the following procedure:

(1) Organizing Teaching Procedure

a. The installation of applications on students' mobile devices.

b. The preparation of Lesson Exemplar and instructional materials for every session. The use of mobile devices in the teaching and learning process for vocabulary enhancement.

c. Construction of the test to be administered.

(2) Pre-test

Prior to the intervention, a pre-test was given to determine the student's prior vocabulary skill level.

The 50-question vocabulary pre-test instrument is a multiple-choice type.

(3) Treatment

After administering the pre-test, the following steps were administered to the respondents:

The researcher introduced the lesson to the students, as well as the use of the Mobile Assisted Language Learning approach through Kotobee app. The researcher discussed the lesson through Kotobee app. After the discussion and explanation, the students answered the activities provided by the researcher, which assesses the students' understanding of the vocabulary/words used in the statement.

(4) Post-test

After the intervention, a post-test with 50 multiple-choice questions were given to see if the MALL approach had any effect on the enhancement of students' vocabulary.

4. Results and Discussion

This chapter presents the result of the data gathered from the respondents' responses after the conduct of the study. It also provides the researcher's analysis and interpretation of data gathered in conjunction with their corresponding implications. Likewise, presentation of the different tables was based on the stated problems in the study.

Table 1 Pre-test Scores of the Control Group in Vocabulary Skills

Control (Pre-test)	Context Clues		Synonyms		Antonyms		Prefix		Suffix	
	f	%	**f**	%	**f**	%	**f**	%	**f**	%
9.00-10.00	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0
7.00-8.00	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0
5.00-6.00	**4**	27	**1**	7	**2**	13	**3**	20	**4**	27
3.00-4.00	**10**	67	**11**	73	**10**	67	**9**	60	**11**	73
0.00-2.00	**1**	7	**3**	20	**3**	20	**3**	20	**0**	0
	15	100	**15**	100	**15**	100	**15**	100	**15**	100

Legend: *9.00-10.00 Advanced* *7.00-8.00 Proficient* *5.00-6.00 Approaching Proficiency*
3.00-4.00 Developing *0.00-2.00 Needs Improvement*

Table 1 reveals the pre-test scores of the respondents under control group in the five vocabulary skills such as context clues, synonym, antonym, prefix and suffix. It can be gleaned that majority of the control group received scores ranging from 3.00-4.00 with the verbal interpretation of Developing. This implied that the respondents demonstrated a limited understanding of the words among the five vocabulary skills. That resulted to a number of factors related to language instruction. Also, most of the students were the graduates of old curriculum which means the gap year and not being expose to the target language are the major reasons for the low performance. Since most of them graduated about 5-10 years ago, they had a limited vocabulary knowledge which made them difficult to choose appropriate meaning of the words. Hence, according to Student Conservation Association the year gap of the students' learning tended to perform low in class. Therefore, students learn new words more effectively when they encounter them frequently and in a variety of contexts.

Table 2 Pre-test Scores of the Experimental Group in Vocabulary Skills

Treat (Post-test)	Context Clues		Synonyms		Antonyms		Prefix		Suffix	
	f	%	**f**	%	**f**	%	**f**	%	**f**	%
9.00-10.00	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0
7.00-8.00	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0
5.00-6.00	**8**	53	**6**	40	**3**	20	**3**	20	**4**	27
3.00-4.00	**5**	33	**7**	47	**8**	53	**8**	53	**8**	53
0.00-2.00	**2**	13	**2**	13	**4**	27	**4**	27	**3**	20
	15	100	**15**	100	**15**	100	**15**	100	**15**	100

Legend: *9.00-10.00 Advanced* *7.00-8.00 Proficient* *5.00-6.00 Approaching Proficiency*
3.00-4.00 Developing *0.00-2.00 Needs Improvement*

The pre-test results for the experimental group are shown in Table 2 for the five vocabulary skills, including context clues, synonyms, antonyms, prefixes, and suffixes. It can be seen that no one from the students gained a score of 9.00-10.00 and 7.00-8.00 with verbal interpretation of Advanced and Proficient in different vocabulary skills. It implies that they also have difficulties in identifying the meaning of the words as expected since they were not yet given any intervention. Vocabulary intervention can help students focus on the instruction and expand their vocabulary. Also, word learning is aided by repeated exposure to words in a variety of context therefore it is essential to innovate creative learning approaches to enrich their vocabulary knowledge. Similarly, Kozhevnikova (2019) stated that the development of vocabulary is vital in learning a second language and is extremely difficult without the exposure to the language.

Table 3 Post-test Scores of the Control Group in Vocabulary Skills

Control Post	Context Clues		Synonyms		Antonyms		Prefix		Suffix	
	f	%	**f**	%	**f**	%	**f**	%	**f**	%
9.00-10.00	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0
7.00-8.00	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0
5.00-6.00	**3**	20	**0**	0	**0**	0	**2**	13	**1**	7
3.00-4.00	**9**	60	**8**	53	**11**	73	**8**	53	**8**	53
0.00-2.00	**3**	20	**7**	47	**4**	27	**5**	33	**6**	40
	15	100	**15**	100	**15**	100	**15**	100	**15**	100

Legend: *9.00-10.00 Advanced* *7.00-8.00 Proficient* *5.00-6.00 Approaching Proficiency*
3.00-4.00 Developing *0.00-2.00 Needs Improvement*

Table 3 shows the post-test scores of the respondents under control group in vocabulary skills. It revealed that respondents who got scores ranging from 5.00-6.00 with the verbal interpretation of Approaching Proficiency decreased compared to their pre-test scores. This implies that there are factors that affect the performance level of the students after the instruction using traditional method. One of the factors is absenteeism, instead of attending the learning session, some students choose to work in order to earn money and support their families' fundamental needs. In line with the study of Flores (2022) he found out that some students lose interest in attending ALS program because they were focus more on earning a living. Furthermore, majority of the respondents are females who were married and had children, they were challenged by responsibilities such as childcare and domestic works as well as their job that they had a hard time balancing between work, family and study. Since the only method to learn the lesson for the control group was to be present at the session, the aforementioned factors influenced the respondents' low performance. Therefore, the students are required to have time management to balance their work, family and education. Additionally,

according to studies time management can boost a student's motivation and success.

Table 4 Post-test Scores of the Experimental Group in Vocabulary Skills

Treat Post	Context Clues		Synonyms		Antonyms		Prefix		Suffix	
	f	%	**f**	%	**f**	%	**f**	%	**f**	%
9.00-10.00	**2**	13	**0**	0	**0**	0	**1**	7	**0**	0
7.00-8.00	**4**	27	**3**	20	**1**	7	**1**	7	**3**	20
5.00-6.00	**9**	60	**10**	67	**9**	60	**9**	60	**8**	53
3.00-4.00	**0**	0	**2**	13	**5**	33	**3**	20	**4**	27
0.00-2.00	**0**	0	**0**	0	**0**	0	**1**	7	**0**	0
	15	100	**15**	100	**15**	100	**15**	100	**15**	100

Legend: *9.00-10.00 Advanced* *7.00-8.00 Proficient* *5.00-6.00 Approaching Proficiency*
3.00-4.00 Developing *0.00-2.00 Needs Improvement*

Table 4 shows the posttest scores of the respondents under experimental group in vocabulary skills. It was noticed that after the implementation of MALL approach through Kotobee application where the students can access it inside and outside the school, there were 2 out of 15 or 13% of the respondents and 1 out of 15 or 7% of the respondents received scores in Context Clues and Prefix ranging from 9.00-10.00 with the verbal interpretation of Advanced. This means that the students somehow developed their vocabulary skills after the intervention. The outcome implied that the respondents under experimental group performed well after the integration of the Mobile Assisted Language Learning approach through Kotobee App. It was evident that students exposed to Kotobee interactive e-book have satisfactory achievement level than students who exposed in a traditional instruction. In addition to this, Abdelatif (2019) identified that MALL is an effective tool for giving students real-world practice opportunities for their vocabulary learning. Yet, for language learning, the cost and technologies associated with mobile devices should be considered.

However, 1 out of 15 or 7% of the respondents gained 0.00-2.00 score in prefix after the intervention made which means that there still things to consider in using mobile devices. This implied that aside from being unexposed to the language, was the lack of basic digital skills which includes being able to navigate the application. Although the Department of Education provided tablets for the students to use, still using it can be difficult for them due to their inexperience and lack of exposure to mobile technology. Therefore, ICT integration is needed to help learners work on their own and do authentic tasks.

Table 5. Test of Significant Difference Between the Pre-test and Post-test Scores of Control Group

Variables	Pretest		Posttest		t	df	Sig. (2-tailed)
	Mean	SD	Mean	SD			
Context clues	3.87	0.92	3.40	1.06	0.048	29	0.058
Synonym	3.33	0.90	2.60	0.83	0.016	29	0.082
Antonym	3.47	1.13	2.87	1.13	0.033	29	0.063
Prefix	3.47	1.30	3.20	1.08	0.389	29	0.052
Suffix	4.00	0.93	2.87	0.92	0.003	29	0.059

Table 5 illustrates the pre-test and post-test responses of the control group. It shows that there is

difference between the pre-test and post-test mean scores among the five vocabulary skills. The mean scores of the pre-test are higher than the mean score of the post-test. This implied that there were factors that affect the results of the tests. One of the observed factors was some students were not present in the school during the lessons due to their responsibilities such as work and family. Also, the content of the vocabulary tests was not based from the lessons which made them hard to distinguish the meaning of the words.

However, this difference among the vocabulary skills is not significant at 0.05 level. Therefore, it can be concluded that there is no significant difference between the pre-test and the post-test mean scores of the control group who were taught with traditional method. This means that the performance of the students remained the same since they were not exposed in any interventions. Likewise, Jitendra et al., (2004) as cited in Massachusetts Comprehensive Assessment System mentioned that instructional intervention provides specific explanation and contextual information, as well as encourage students to use vocabulary expressively, have been shown to be successful with learners who struggle with vocabulary.

Table 6. Test of Significant Difference Between the Pre-test and Post-test Scores of Experimental Group

Variables	Pre-test		Post-test		t	df	Sig. (2-tailed)
	Mean	SD	Mean	SD			
Context clues	4.33	1.35	6.60	1.35	2.710	29	0.000
Synonym	4.13	1.36	5.73	1.22	0.001	29	0.052
Antonym	3.33	1.11	5.07	0.96	7.700	29	0.001
Prefix	3.47	1.36	5.20	1.74	8.000	29	0.000
Suffix	3.53	1.13	5.47	1.46	4.200	29	0.000

Table 6 shows the analysis of the experimental group before and after the treatment. The comparison of the responses between the pre-test and post-test are different. The mean scores of the post-test result is higher than the pre-test result. This implied that the intervention using MALL is effective that resulted to the increase of post-test mean scores compared to pre-test mean scores. Therefore, the difference in context clues($p=0.000<0.05$), antonym($p=0.001<0.05$), prefix and suffix ($0.000<0.05$) is significant at 0.05 level while the difference in synonym ($0.052>0.05$) is not significant at 0.05 level. This means that among the five vocabulary skills, the respondents found it hard to identify the similar meaning of the word. It was noticed that the reason is the content of the test item. No reference to the lesson was made in the vocabulary test which resulted to low performance.

It is concluded that there is a significant difference between the pre-test and post-test in terms of context clues, antonym, prefix and suffix of the experimental group who were taught using MALL approach through Kotobee App. This implies that students gained better performance when they were exposed to Mobile Assisted Language Learning (MALL) approach. Van and Thanh (2021) pointed out that learners who use portable devices improve their learning by using applications. Although, synonym is not statistically significant considering the reasons mentioned above, it is necessary to provide more vocabulary activities regarding the use of synonyms. Also, the construction of the vocabulary test must be based on the lessons so that the students will be familiar with the context.

Table 7. Test of Significant Difference Between the Pre-test and Post-test Scores of Control and Experimental Group

Test	Control		Experimental		t	df	Sig. (2-tailed)
	Mean	SD	Mean	SD			
Pre-test	18.13	2.42	18.80	3.59	0.506	29	0.082
Post-test	14.93	2.60	28.07	3.17	1.800	29	0.000

Table 7 illustrates the pre-test and post-test responses of the respondents under control and experimental group. The pre-test and post-test mean score of the experimental group (M=18.80, M=28.07) is higher than the mean score of control group (M=18.13, M=14.93). This only means that students under experimental group performed better than control group. It was noticed also that the post-test mean score of the experimental group using MALL approach was 13.14 higher than control group using traditional approach. This implies that MALL approach using Kotobee application enhance the vocabulary skills of the respondents.

However, the difference in the pre-test scores of the control and experimental group is not significant at 0.05 level ($p=0.082>0.005$). This indicates that no significant difference was discovered because neither group received any kind of intervention. Hence, the difference in the post-test scores under control and experimental is significant at 0.05 level ($p=0.000<0.005$). This illustrates that the increase of the mean score of experimental group compared to control group was identified. As a result, MALL is an effective approach to improve the vocabulary skills of the students

Therefore, it can be concluded there is a significant difference on the post-test scores of the students who were taught under experimental and control groups, though there is no significant difference on their pre-test scores as expected because they did not know the lesson yet. This implies that students under experimental found it easy to identify the vocabulary words with the help of mobile technology. Experimental group outperformed in vocabulary skills than the students under control group. This result is in line with the study of Khubyari and Narafshan (2018) that showed that due to the portability and accessibility of mobile phones, students prefer learning the language using these devices. Since the last quarter of the 20th century have made it necessary for teachers to use technology as a tool in teaching and learning, Mobile Assisted Language Learning is an assistive aid for vocabulary development.

5. Conclusion

In the light of the aforementioned findings, it can be concluded that there is a significant difference between the pre-test and post-test scores of the respondents who were taught using traditional method and MALL approach using Kotobee app in terms of context clues, synonym, antonym, prefix and suffix. Though both groups performed low in the pre-assessment due to gap year, not being expose to the language and as expected since no intervention was made where there is no significant difference, the experimental group outperformed the control group in the post-assessment, resulting in a significant difference. Therefore, MALL approach using Kotobee app is an educational tool that are used to foster beneficial changes in students' learning and experience and also help teachers create their own digital learning materials and make the teaching and learning more interactive.

It can be inferred that Mobile Assisted Language Learning Approach (MALL) using Kotobee application is beneficial to Alternative Learning System Learners because it enables them to learn the language inside and outside the classroom. As well as they can access and view the material whenever and wherever they want. Therefore, the use of MALL through Kotobee application increases the students' engagement and vocabulary development.

6. Recommendation

Based on the findings of the study and the conclusion drawn, the following are recommended.

- Since this study revealed that Mobile Assisted Language Learning (MALL) approach through Kotobee app is effective on the enhancement of vocabulary skills. It is therefore recommended that teachers may create MALL vocabulary activities and encourage students to use MALL apps as language learning resources to learn the target language. Teachers may continue to emphasize the recognized needs of students in the teaching-learning process, innovate, and give help for the individual needs of students in order to boost literacy improvement and address gaps in order to produce globally competitive learners.
- Since the study demonstrated a substantial difference in student performance, the effectiveness of MALL was determined. It is recommended that more study can be done to identify how certain mobile tools integrated with appropriate pedagogical practices might be used to improve students' learning performance. Also, it is recommended to use large sample size in a formal education since the study was limited only to 30 students in a non-formal education.
- School administrators may give opportunities for teachers to increase their professional growth so that they can handle the changing needs of their students effectively. They may conduct seminars and trainings regarding different interventions and carefully assess the proposed intervention prior to the implementation.

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