

The Integration of Mobile Assisted Language Learning (MALL) Approach in Teaching English Vocabulary and Writing Skills Among Grade 7 Students

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Abstract

Digital technology has revolutionized communication and interaction, making it challenging for teachers to keep students motivated. Mobile learning, particularly mobile-assisted language learning (MALL), offers flexible content and a bridge between technology and humans. MALL applications, such as Duolingo, helped learners learn vocabulary, access grammar exercises, improve writing skills, and increase reading comprehension. The Department of Education published Memorandum No. 173, Series of 2019, aiming to produce responsible citizens equipped with lifelong learning skills.

In Banza National High School, there were twenty-two non-readers based on Phil-IRI results for the 2022–2023 and 2023–2024 school years. To address this gap, this study aimed to integrate MALL, specifically Duolingo, for teaching English vocabulary and writing skills. The researcher had experienced difficulties teaching vocabulary and writing to her students, and the study aimed to demonstrate the Duolingo application's value in addressing reading-related issues. By understanding the potential of MALL and implementing it effectively, teachers can better support their students in embracing reading and learning.

Keywords: English Vocabulary; Writing Skills; MALL

1. Introduction

The advancement of digital technology, with its easy access to information, alters the way we communicate and interact with and within the environment (Fructuoso, 2015). In the digital age, teachers struggle to keep students motivated using materials that cannot compete with the number of stimuli and information available with a single click (Boudadi, 2020).

Teachers who want to incorporate digital technologies into their classrooms have another challenge: distinguishing between leisure and learning activities using digital tools and gadgets (Buckley, 2014). Mobile learning provides instructional content in a more flexible format in terms of time and location, altering the relationship between learning and learners. In the case of additional language learning, mobile devices employed in mobile-assisted language learning (MALL) are viewed as instruments that direct users to convenient access to word meaning in digital dictionaries and free educational apps (Gao, 2021).

Language learning methods grow in tandem with technological advancements. Mobile Assisted Language Learning, or "MALL," is a popular method for learning a second language that involves the use of cell phones and other devices. MALL is advantageous to language learners for a variety of reasons. First and foremost, the average language student owns a mobile phone. (More than 90% of individuals in industrialized countries own a cell phone, but only 40% own desktop computers. Furthermore, most people carry their phones wherever they go. This allows people to learn at any time and from any location. If students enjoy their language learning applications and activities, they will be motivated to continue studying outside of class (Kukulka, 2015).

There are various smartphone apps available for language learning. Some applications are developed expressly for this purpose. Others are instructional apps that can teach a variety of subjects, including languages. MALL is gaining popularity among people interested in learning a second language, and MALL applications have been used to learn vocabulary, access grammar exercises, improve writing skills, and increase reading comprehension. Duolingo is a MALL software that provides a variety of tasks for studying

the structural components of other languages (Chen, 2016). It is free for smartphones and tablets, and it is also a social media platform that links people who are learning languages, displaying how advanced they are in comparison to one another in the chosen language. Duolingo's game-like element may engage learners through motivation and competition (Fadilah,2022).

Existing research emphasize the importance of investigating technology's potential for education, as well as how contemporary students' attention is more likely to focus on visual and kinesthetics stimuli rather than traditional stimuli due to the intensity of their contact with technology outside of class (Costuchen, 2022). Mobile devices alter the relationship between content and learner, as well as between learning and enjoyment, and they serve as a bridge between technology and humans (Merwe,2015).

Consequently, the Department of Education published Memorandum No. 173, Series of 2019, on "Hamon: Bawat Bata Bumabasa (A 3 B's Initiative)," in which it outlines how it continuously carries out its mandate to produce accountable, productive citizens who are outfitted with crucial competencies and skills for lifelong learning. To make every learner a good reader, it is the duty of schools across the nation to assist students in improving their reading abilities (Lofranco, 2023).

In the context of Banza National High School, there are twenty-two non-readers based on the Phil-IRI results for the school year 2022-2023 and twenty-six non-readers for the school year 2023-2024. As the reading coordinator, I know it is important to initiate action to address this gap. This study integrates MALL in general and Duolingo in particular for teaching English Vocabulary and Writing Skills. To help students eventually embrace reading and learning, this study aims to ascertain how well the Duolingo application works in resolving the issues. The researcher has a great deal of trouble teaching vocabulary and writing to her students during her five years of teaching. It is hoped that by conducting the study, the researcher will be able to demonstrate the value of the Duolingo application in addressing reading-related issues.

1.1 Statement of the Problem

This study integrates Mobile Assisted Language Learning (MALL) approach, specifically the

Duolingo Application in teaching English Vocabulary and Writing Skills among the grade 7 students of Banza National High School in Butuan City. Specifically, this study seeks to answer the following questions:

1. What is the pre-test level of English vocabulary proficiency and writing skills of the students in the control and experimental group?
2. What is the post-test level of English vocabulary proficiency and writing skills of the students in the control and experimental group?
3. Is there a significant difference on the pre-test and post-test level of English vocabulary proficiency and writing skills?
 - 3.1 Control Group
 - 3.2 Experimental Group
 - 3.3 Control and Experimental Group
4. What are the experiences of the students in using Duolingo Application?
5. What intervention program can be designed based on the results of the study?

2. Methodology

The quantitative method was employed by the researcher. As a result, the researcher collected empirical data. The researcher conducted quasi-experimental research, using pretest and post-test design.

Pretest and posttest were the research designs in which participants were given the same assessment measures before and after receiving treatment or being exposed to a condition, with the results used to establish if any changes could be attributable to the treatment or condition. A pretest-posttest control-group design was a more comprehensive variant in which participants were randomly allocated to a treatment or control group.

At the start of the study, all participants were tested, the intervention was administered to the

experimental group but not to the control group, and all participants were measured again. The presence of the control group enabled the researcher to discover any preexisting discrepancies between the groups and allowed her to ascribe variations more confidently in pre- and post-test scores to the treatment of interest.

3. Results and Discussion

This chapter presents the analysis and interpretation of the data obtained to provide answers to the problem cited in the statement of the problem.

Problem 1. What is the pre-test level of English vocabulary proficiency and writing skills of the students in the control and experimental group?

Table 1

Level of English vocabulary proficiency and writing skills of the students before integrating the Duolingo Application

Statistic	Control		Experimental	
	Raw Score	Mean Percentage Score	Mean Percentage Score	
Highest	16	85.0	10	62.5
Lowest	3	36.3	2	32.5
Mean	11.48	68.1	5.10	44.1
Median	8	55.0	6	47.5
Mode	4	40.0	5	43.8

Range	Description	Control		Experimental	
		Freq.	%	Freq.	%
90-100	Outstanding	-	-	-	-
85-89	Strongly Satisfactory (Passed)	2	10.0	-	-
80-84	Satisfactory (Passed)	1	5.0	-	-
75-79	Fairly Satisfactory (Passed)	-	-	-	-
Below 75	Did Not Meet Expectations (Failed)	17	85.0	20	100.0
Total		20	100.0	20	100.0

As shown in Table 1, 17 or 85% of the students in the control group did not meet the expectations, while 20 or 100% of the students in the experimental group also did not meet the expectations. Moreover,

only 1 or 5% of the students in the control group are at a satisfactory level. In addition, 2 or 10% of the students in the control group are at a strongly satisfactory level. Furthermore, nobody is at a fairly satisfactory or outstanding level. This means that the students' manifest difficulty in English vocabulary and writing skills.

Serroukh (2022) supports the pre-test results and states that traditional teaching and learning methods are ineffective. It places the lecturer or tutor in charge and relies on an economic assessment of all teaching and learning resources. This strategy makes students passive learners. Traditional teaching methods are primarily guided by the teacher, and students are taught in a sitting and listening format.

It is true that traditional expectations and department philosophies frequently allow us to continue with the lecture-based paradigm with some good results, as evidenced by many people's previous accomplishments, which cannot be disputed. However, it is frequently stated that the traditional technique does not provide students with valuable skills, and some even go so far as to claim that the traditional method causes students to lose information following tests (Tularam et al., 2018).

Problem 2. What is the post-test level of English vocabulary proficiency and writing skills of the students in the control and experimental group?

Table 2

Level of English vocabulary proficiency and writing skills of the students after integrating the Duolingo Application

Statistic	Control		Experimental	
	Raw Score	Mean Percentage Score		Mean Percentage Score
Highest	15	81.25	20	100.00
Lowest	2	32.50	13	73.75
Mean	8.1	55.38	15.9	84.63
Median	6	47.50	17	88.75
Mode	5	43.75	17	88.75

Range	Description	Control		Experimental	
		Freq.	%	Freq.	%
90-100	Outstanding	-	-	4	20.0
85-89	Strongly Satisfactory (Passed)	-	-	6	30.0
80-84	Satisfactory (Passed)	2	10.0	6	30.0
75-79	Fairly Satisfactory (Passed)	2	10.0	1	5.0
Below 75	Did Not Meet Expectations (Failed)	16	80.0	3	15.0
Total		20	100.0	20	100.0

As shown in Table 2, 16 or 80% of the students in the control group did not meet the expectations, while 3 or 15% of the students in the experimental group did not meet the expectations. Additionally, there are 2 or 10% of the students in the control group who are at a fairly satisfactory level, and only 1 or 5% of the students in the experimental group who are also at a fairly satisfactory level. Then, there are 2 or 10% of the students from the control group who are at the satisfactory level, while there are 6 or 30% of the students from the control group who are also at the satisfactory level.

Moreover, there are 6 or 30% of the students in the experimental group who are at a strongly satisfactory level. Also, there are 4 or 20% of the students from the experimental group who are at the outstanding level. However, nobody from the control group is at a strongly satisfactory and outstanding level.

The increase in the scores of the experimental group in the post-test in terms of understanding English vocabulary and writing skills notably improved. The data implies that the students who are exposed to the Duolingo application perform better and manifest a deeper understanding of the learning competencies included in the study.

The objective of Duolingo is to help users comprehend and use languages Savvani (2019). Duolingo focuses on vocabulary and writing. Duolingo has evolved into a tool that allows students to extend their vocabulary, and teachers utilize it in the classroom to help students learn language (Sam, 2020). Using Duolingo, one idea is to help students learn new words using games so that they will not become bored while studying, and Duolingo is one of the games that students can play for this purpose (Abitov, 2017)

Duolingo is a realistic and helpful tool that might be utilized as a foreign language course to improve students' skills and increase student engagement (Jabbar & Felicia, 2015). Duolingo can be utilized to assist students in the learning process (Alfuhaid, 2021).

Problem 3. Is there a significant difference on the pre-test and post-test level of English vocabulary proficiency and writing skills within the Control Group, within the Experimental Group, and between the Control and Experimental Group?

Table 3

Result of the test of difference on the English vocabulary proficiency and writing skills within the control group (without using the application)

Paired T Control Pre and Post				
	N	Mean	StDev	SE Mean
Before	20	52.56	18.02	4.03
After	20	55.19	14.87	3.33
Difference	20	-2.63	5.32	1.19
95% CI for mean difference: (-5.11, -0.14)				
T-Test of mean difference = 0 (vs not = 0): T-Value = -2.21 P-Value = 0.040				
Decision	Reject Ho			
Remarks	Significant Difference			

As shown in Table 3, the mean of the pre-test is 52.56 compared to the mean of the post-test, which is 55.19, and the difference is -2.63. Apart from this, the computed standard deviation of the pre-test is 18.02, while the standard deviation of the post-test is 14.87, and the difference is 5.32. Moreover, the computed standard error mean in the pre-test is 4.03, and in the post-test is 3.33, and the difference is 1.19. Hence, the null hypothesis is rejected, and there is a significant difference between the pre-test and post-test scores even without using the Duolingo Application.

Table 4

Result of the test of difference on the English vocabulary proficiency and writing skills within the experimental group (using Doulingo application)

Paired T Experimental Pre and Post				
	N	Mean	StDev	SE Mean
Before	20	44.13	7.69	1.72
After	20	85.19	7.74	1.73
Difference	20	-41.063	2.268	0.507

95% CI for mean difference: (-42.124, -40.001)
 T-Test of mean difference = 0 (vs not = 0): T-Value = -80.97 P-Value = 0.000

Decision	Reject Ho
Remarks	Significant Difference

As shown in Table 4, the mean of the pre-test is 44.13 compared to the mean of the post-test, which is 85.19, and the difference is -41.063. Apart from this, the computed standard deviation of the pre-test is 7.69, while the standard deviation of the post-test is 7.74, and the difference is 2.268. Moreover, the computed standard error mean in the pre-test is 1.72, and in the post-test, it is 1.73, and the difference is 0.507. Hence, the null hypothesis is rejected. There is a significant difference between the pre-test and post-test scores.

Table 5

Result of the test of difference on the English vocabulary proficiency and writing skills between control and experimental group

Paired T Mean Gain Between Control and Experimental Groups				
	N	Mean	StDev	SE Mean
Control	20	2.63	5.32	1.19
Experimental	20	41.06	2.27	0.51
Difference	20	-38.44	6.31	1.41

95% CI for mean difference: (-41.39, -35.49)
 T-Test of mean difference = 0 (vs not = 0): T-Value = -27.25 P-Value = 0.000

Decision	Reject Ho
Remarks	Significant Difference

As shown in Table 5, the mean of the control group is 2.63, while the mean of the experimental group is 41.06, and the difference is -38.44. The computed standard deviation of the control group is 5.32, whereas the experimental group is 2.27, and the difference is 6.31. Furthermore, the standard error mean of the control group is 1.19; however, the experimental group is 0.51, and the difference is 1.41. Therefore, the null hypothesis is rejected. There is a significant difference between the control and experimental groups, and this could be attributed to the integration of the Duolingo application.

This finding is similar to the Aulia et al. (2020) study, which indicated that students in the experimental group who utilized a language learning application performed better than those in the control group. This indicates that language-learning software can help students improve their vocabulary achievement scores (Koivisto & Hamari, 2014).

Furthermore, the findings are consistent with previous research conducted by Ali & Deris (2019), which demonstrated that Duolingo had a positive effect on language learning development when used alone or in conjunction with other applications, with learners remembering 80–100% of words when they repeated the exercise after 24 hours (Koivisto & Hamari, 2019).

Problem 4. What are the experiences of the students in using Duolingo Application?
Table 6
Most numbered responses on the experiences of the students in using Duolingo Application.

Experiences of the students
I am happy/excited to learn English using Duolingo Application. (x18)
I prefer to use a computer rather than tablet when using Duolingo Application. (x16)
I like/love the quizzes in the Duolingo Application because it has chunking questions. (x12)
Through Duolingo Application, I learned some unfamiliar words and the correct spelling. (x11)

As shown in Table 6, 18 of the students from the experimental group are happy with using the Duolingo Application, while 16 students prefer to use computers in using the said application. Moreover, there were 12 students who loved the quizzes in the Duolingo Application, and there were 11 students who responded that they had learned some unfamiliar words and the correct spelling of a word. Hence, the students from the experimental group performed well and had a positive attitude towards the Duolingo Application.

This result is similar to Alemi (2016); Education is the process of acquiring knowledge and skills. Learning English is a skill-based process that requires a variety of methods and tactics. Technological advancements have had a significant impact on schooling today. The use of technology is the most recent solution to the issue of learning English. As English language learning methods evolve, Duolingo continues to innovate new ways to learn languages on a mobile phone or computer (Ajisoko, 2020).

Problem 5. What intervention program can be designed based on the results of the study?

Table 7

A WORKSHOP PROGRAM

I. PROGRAM TITLE	Workshop Program on the Integration of Mobile Assisted Language Learning Approach (MALL) in Teaching English Vocabulary and Writing Skills
II. IDENTIFYING DATA	
A. Proponent	Ms. Angellet Joy M. Moyon
B. Implementing Entity	Banza National High School
C. Venue	SBM Room-Banza NHS
D. Time Frame	May 17, 2024 7:30am-4:30pm
E. Program Beneficiaries	1 School Principal 1 Master Teacher 6 English Teachers
F. Program Cost	2,096

As shown in Table 7, a workshop program proposal is being designed on the Integration of Mobile Assisted Language Learning Approach (MALL) in Teaching English Vocabulary and Writing Skills. The said program is participated by 1 School Principal, 1 English Master Teacher and 7 English Teachers. The result of this study must be addressed through an SLAC session. Thus, this program is proposed.

The overall aim of the workshop program is to train English teachers on the Integration of Mobile Assisted Language Learning Approach (MALL) specifically, the Duolingo Application in Teaching English Vocabulary and Writing Skills.

Precisely, the participants are expected to:

- a. Understand the Duolingo Application's Features.
- b. Explore Vocabulary Acquisition and Writing Skills.
- c. Promote Active Engagement.
- d. Integrate Duolingo Application in English Class.

4. Conclusions and Recommendations

Summary

This study aimed to integrate mobile-assisted language learning. (MALL) approach, specifically the Duolingo application in teaching English Vocabulary and writing skills among the grade 7 students of Banza National High School in Butuan City. The pretest and posttest designs were used in the study, which involved 40 students who were given a 20-item test. The independent variable in this study was the Duolingo application, and the dependent variable was the students' English vocabulary proficiency and writing skills.

The questionnaire that was used as the pre-and posttest was constructed by the researcher and validated by the experts. The competencies used in making the test were taken from the English Curriculum Guide for Grade 7. The Mobile Assisted Language Learning (MALL) approach, specifically the Duolingo application, was integrated into the English lesson as a treatment to determine if there was a significant difference in the English vocabulary proficiency and writing skills of the students before and after integrating the Duolingo application.

Findings

The following are the findings of the study:

1. Most of the students in the control and experimental groups did not meet the expectations or failed the pre-test. This means that the students manifested difficulty in English vocabulary and writing skills.
2. Most of the students in the control and experimental group passed the post-test.
3. There was a significant difference within the control group, within the experimental group and between control and experimental group in the English vocabulary proficiency and writing skills of the students before and after integrating the Duolingo application.
4. Most of the students were enjoying learning English vocabulary and writing skills and were looking forward to using the Duolingo application in the future.

5. A Workshop Program on the integration of Duolingo Application in Teaching English Vocabulary and Writing Skills was designed with the participation of the English teachers of Banza National High School.

Conclusions

Based on the findings of the study, the following conclusions are drawn.

1. The pre-test scores provide information that is used to determine whether students do well or poorly in terms of English vocabulary proficiency and writing skills.
2. The use of a Mobile Assisted Language Learning (MALL) approach, specifically the Duolingo application, motivates students to learn, maximizes enjoyment and engagement by capturing the learner's interest, and promotes ongoing learning by incorporating productive game design and game elements into the learning environment.
3. The usage of the Mobile Assisted Language Learning (MALL) strategy, specifically the Duolingo application, improves the grade 7 students' English vocabulary proficiency and writing skills.
4. The students are enjoying learning English vocabulary and writing skills and are excited to use the Duolingo application in the future.
5. Based on the results of the study, A Workshop Program on the integration of Duolingo Application in Teaching English Vocabulary and Writing Skills was designed with the participation of the English teachers of Banza National High School.

Recommendations

Based on the conclusions drawn, the following recommendations are offered for consideration.

Teachers. To make the lesson in class more effective, aside from the standard way of teaching, teachers may use learning applications like Duolingo. Using Duolingo is a great tool for teachers. This application assists students in finding new terms, learning new words more easily, understanding the topic,

memorizing new words more effectively, and enhancing their writing skills.

Students. Duolingo may assist students in mastering their vocabulary and writing skills. Students may utilize this app for learning because it is both free and effective. It is not only helpful to assist students in learning languages but also in using and practicing vocabulary and writing in everyday situations.

School Administrators. May encourage and promote innovative changes in the teaching technique and strategies in the classroom to cater to students' needs.

Future Researchers. They may further examine the integration of the Duolingo application in teaching English and consider other variables not included in the present study.

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