EDUCATIONAL JOURNAL
Homepage https://indojurnal.com/index.php/edu
eISSN 3110-1151 & pISSN 3110-1526
Vol. 1, No. 4, 2026
doi.org/10.63822/snjsaq31
PP. 2093-2101

The Effectiveness of MALL Through Duolingo in Speaking of 7th Grade Students at SMP Negeri 5 Sukawati

Ni Wayan Senia Remani[1], Ni Putu Ratni[2], I Putu Andre Suhardiana[3]
English Language Education Department, Dharma Acarya Faculty,
I Gusti Bagus Sugriwa Denpasar State Hindu University[1,2,3]

*Corresponding Author's Email: seniaremani667@gmail.com

Received: 06 14, 2026 | Accepted: 06 19, 2026 | Published: 06 21, 2026

ABSTRACT

This study aims to test the effectiveness of using MALL through Duolingo on the speaking skills of seventh-grade students at SMP Negeri 5 Sukawati. This study used a quasi-experimental research design. Participants were 75 seventh-grade students at SMP Negeri 5 Sukawati, divided into two classes. A speaking test was used to collect data through a pretest and posttest. Data were analyzed using inferential statistics and non-parametric tests, especialy the Mann-Whitney U test and Guade's ANCOVA. The test results showed a significant difference in post-test scores between the two groups after controlling for pre-test scores as a covariate using the Guade's ANCOVA test, with a p-value of 0.000, or lower than 0.05. These results indicate a significant difference between the experimental and control groups. The mean score for the experimental group was 71.08, while the mean score for the control group was 64.56. Therefore, it can be concluded that using Duolingo has a significant effect on students' speaking skills.

Keywords: *Duolingo, Speaking, Quasi-experimental.*

How to Cite:

Remani, N. W. S. ., Ratni, N. P. ., & Suhardiana, I. P. A. (2026). The Effectiveness of MALL Through Duolingo in Speaking of 7th Grade Students at SMP Negeri 5 Sukawati. Educational Journal, 1(4), 2093-2101. https://doi.org/10.63822/snjsaq31

INTRODUCTION

According to (Nurus et al., (2023), in Indonesia, English Language Teaching (ELT) is part of education, which is the way of learning skills and knowledge. In learning English knowledge and skills are very necessary. According to Alfuhaid, (2021), ELT not only covers teaching methods used in the classroom, but also in curriculum design, material development and assessment practices that together shape the language learning experience. Rahayu et al., (2025), stated that ELT practices have increasingly been influenced by the integration of digital technology, which offers new possibilities for creating immersive and interactive learning experiences beyond the limits of the physical classroom.

According to Alfuhaid, (2021), speaking is one of the most important basic skills in language learning that involves the productive ability to express ideas, thoughts, and feelings orally in a communicative context. Speaking is the process of exchanging ideas, feelings and various information that can build good relationships between people. In addition, Al Ayub Ahmed et al., (2022), also state that in the context of English as a Foreign Language (EFL), speaking ability is often considered as a key indicator of language proficiency, as it demonstrates learners' ability to use English functionally in real-life situations, rather than just understanding passively. As stated by Djahimo, (2018) the results of the study show that students often feel afraid and reluctant to try to express their opinions in speaking using English.

In the face of challenges in teaching and learning to speak, rapid technological advances have introduced innovative solutions, one of which is Mobile Assisted Language Learning (MALL). Mobile-Assisted Language Learning (MALL) has emerged as a significant innovation in education, offering flexible and accessible platforms for language learning Kuznetcova & Martens, (2023). MALL has benefits and many types of tools that can be used for students in learning. As well as learning vocabulary, there are many tools that they can use, some in the form of applications or websites that are certainly very easy to use or find by them. Among the various MALL tools available, language learning applications such as Duolingo have become popular for their interactive features, including voice recognition technology that allows users to practice pronunciation and receive instant feedback.

The implementation of Mobile-Assisted Language Learning (MALL) through Duolingo in English classes offers a practical and innovative solution for developing students' speaking skills Budiyanto & Ridho, (2024). The use of Duolingo gives students repeated opportunities to practice speaking in a low-pressure environment. As explained by Alfuhaid, (2021), the app's voice recognition feature allows students to practice pronunciation and receive instant feedback on their accuracy, which is particularly beneficial for students who may feel anxious when speaking in front of their friends.

Previous research on the effectiveness of Duolingo in language learning has shown a significant impact on students' speaking abilities Azhima & Halim, (2024). However, there is a gap in previous research on Duolingo. Therefore, this study aims to determine the effectiveness of using MALL through Duolingo on the speaking abilities of 7th grade students of SMP Negeri 5 Sukawati, by comparing it with conventional learning media.

METHODS OF RESEARCH

Research Design

The design of this study was experimental the effectiveness of MALL through Duolingo in speaking of 7th-grade students at SMP Negeri 5 Sukawati was examined in this study using a quasi-

experimental research approach. Quasi-experimental design was a research design used to determine the cause-and-effect relationship between independent variables and dependent variables Zubair, (2022). The purpose of this study was to test the effectiveness of using MALL through Duolingo on the speaking skills of seventh-grade students at SMP Negeri 5 Sukawati. Both groups completed a pre-test and a post-test, with only the experimental group receiving the treatment using Duolingo.

Participants and Setting

This study was conducted at SMP Negeri 5 Sukawati. This study focused on seventh-grade students of SMP Negeri 5 Sukawati which this study used two classes: experimental group and control group. The Total population consists of 309 students. In this study, the sample consisted of students from VII C and VII D totaling 75 participants. Participants were selected through cluster random sampling. Researchers chose cluster random sampling as the sample selection technique because it eliminated the need to form new groups, making it more practical and efficient. In research using a quasi-experimental design, sample selection using cluster random sampling was the right solution, because it uses existing classes and eliminates the need to form new groups.

Procedures and Treatment

A pre-test was conducted at the first meeting, before the treatment to start the data collection process. Both groups, namely the experimental group and the control group, received the same pretest questions. After conducting the pretest, the next step was to implement the treatment. This treatment aimed to determine the effectiveness of MALL through Duolingo in improving students' speaking skills. The treatment was administered to the experimental group using Duolingo as the learning medium. The treatment was conducted over three meetings. The control group was taught using conventional media such as pictures or tests, and the learning process took place over three meetings. A post-test was conducted at the final meeting after the treatment was completed on the experimental group. This post-test was conducted to determine whether there were differences in scores between the experimental and control groups. This test also determined whether students' speaking skills were significantly affected by the use of the MALL through Duolingo. The instrument used in this study was a speaking test in the form of a performance-based assessment, this test aimed to determine the initial ability of students in English. The test questions were structured to enable students to demonstrate their content, grammar, vocabulary, pronunciation, and fluency usage. To ensure the validity and appropriateness of the instrument before use, it was validated by experts.

Data Analysis

Data analysis was conducted in three stages. First, descriptive statistics (mean, minimum, and maximum) were collected for the pretest and posttest results of both groups. Second, assumption testing was conducted using the Shapiro-Wilk normality test, because the sample size was below fifty, and the Levene test was conducted to test for homogeneity of variance. Third, hypothesis testing was conducted using the Mann-Whitney U test because the assumptions of normality and homogeneity were not met. Due to significant pretest differences, a non-parametric ANCOVA or Quade ANCOVA was also used, using pretest scores as a covariate to control for baseline differences and generate valid comparisons of posttest results.

RESULT AND DISCUSSION

Finding

The findings of this study were obtained from the Speaking Skill scores of students in the experimental and control classes. The experimental class was taught using the Duolingo Application, while the control class was taught using conventional media. Pretests and posttests were conducted to collect data. The pretest was conducted to measure students' initial speaking skills before the treatment was administered, while the posttest was conducted to measure students' Speaking Skills after the treatment was administered. The findings are presented through descriptive statistics, normality tests, homogeneity tests, and hypothesis testing using the Mann-Whitney U test and also ANCOVA Quade.

Tabel 1. Descriptive Statistical Analysis of Pre-Test

Pre-Test	N	Min	Max	Mean	Std. Deviation	Variance
Experimental	39	44	84	53.03	8.090	65.447
Control	36	44	84	58.56	8.614	74.197

Based on the table above, both groups had the same minimum score, which was 44 and both groups had the same maximum score, which was 84. The mean score from the experimental group was 53.03, while the control group was 58.56. These results indicated that there is a difference in the mean score between the experimental group and the control group, this meant that both groups had different abilities before the treatment was conducted.

Tabel 2. Post-Test Difference Between Experimental Group and Control Group

Post-Test	N	Min	Max	Mean	Std. Deviation	Variance
Experimental	39	52	92	71.08	7.972	63.547
Control	36	52	92	64.56	9.028	81.511

Based on these results, the experimental group that learned using Duolingo obtained higher scores than the experimental group that learned using conventional learning media. The mean score after post-test in the experimental group was 71.08, while the control group obtained 64.56. This shows that the mean score of the experimental group was higher than that of the control group. These results indicate that the experimental groups obtained higher scores after receiving treatments.

Tabel 3. Normality Test of Pre-Test Experimental Group and Control Group

Test of Normality

Group	Shapiro-Wilk		
	Statistic	Df	Sig.

Score	Pre-Test Experiment	.760	39	.000
	Pre-Test Control	.864	36	.000

Based on the table above, the results of the Shapiro-Wilk normality test show that the pre-test values of both the experimental and control groups were .000. Since the p-value was lower than 0.05, it can be concluded that the pre-test values of both the experimental and control groups were not normally distributed.

Tabel 4. Normality Test of Post-Test Experimental Group and Control Group

Test Of Normality

	Group	Shapiro-Wilk		
		Statistic	df	Sig.
Result	Post-Test Experimental	.949	39	.078
	Post-Test Control	.840	36	.000

Based on the table above, the result of the Shapiro-Wilk the normality test showed that the posttest values in the experimental group were .078, while the post-test values of the control group were .000. Since the p-values in lower than 0.05, it could be concluded that the post-test values of the experimental group were normally distributed, however the posttest values of the control group were not normally distributed.

Tabel 5. Homogeneity Test of Pre-Test Experimental Group and Control Group

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Score	Based on Mean	.026	1	73	.873
	Based on Median	.018	1	73	.893
	Based on Median and with adjusted df	.018	1	71. 962	.893
	Based on trimmed mean	.080	1	73	.778

Based on the table above, it shows that the significance value of the pre-test result between the experimental group and the control group was .873. The Levene Statistical result is F (1,73) = .005, p = 873. Because the value obtained was higer than 0.05, it could be concluded that the pre-test values of the experimental group and the control group were homogeneous.

Tabel 6. Homogeneity Test of Post-Test Experimental Group and Control Group

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Score	Based on Mean	.135	1	73	.715

Based on Median	.001	1	73	.969
Based on Median and with adjusted df	.001	1	62.111	.969
Based on trimmed mean	.036	1	73	.850

Based on the table above, it shows that the p value of the post-test data between the experimental group and the control group was .715. The Levene Statistical result was F (1,73) = .135, p = .715. Because the value obtained was higer than 0.05, it can be concluded that the post-test values of the experimental group and the control group was homogeneous.

Tabel 7. Pre-Test Rank Table of Mann-Whitney U Test

Ranks				
	Class	N	Mean Rank	Sum of Rank
Hasil	Pre-Test Experimental	39	29.42	1147.50
	Pre-Test Control	36	47.29	1702.50
	Total	75		

Based on the ranks table, the lower mean rank of the experimental group was 29.42, while the mean rank of the control group was 47.29. Based on this data, it shows that the experimental group received lower pre-test scores than students in the control group.

Tabel 8. The Result of Hypothesis Testing

Test Statistic	
Mann-Whitney U	367.500
Wilcoxon w	1147.500
Z	-3.613
Asymp. Sig. (2-tailed)	.000

Based on the results using the Mann-Whitney U test, a significant difference was found between the pre-test results of the experimental and control groups. The significance value was 0.000, which was lower than 0.05. These results indicate that the experimental and control groups had significant differences, which means that the two groups did not have the same abilities before treatment.

Tabel 9. Descriptive Statistics Result from ANCOVA

Descriptive Statistics			
Dependent Variable: Unstandaridzed Residual			
Group Treatment	Mean	Std. Deviation	N
Control	-14.6925287	14.21852008	36
Experimental	13.5623342	10.76573311	39
Total	.0000000	18.89692282	75

Tabel 10. Hypothesis Testing Result from ANCOVA

Test of Between-Subjects Effects					
Dependent Variable: Unstandaridzed Residual					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	14944.874[a]	1	14944.874	95.032	.000
Intercept	23.912	1	23.912	.152	.698
Group	14944.874	1	14944.874	95.032	.000
Error	11480.059	73	157.261		
Total	26424.933	75			
Corrected Total	26424.933	74			

a. R Squared = ,566 (Adjusted R Squared = ,560)

The adjusted residual mean score of the experimental group taught using Duolingo (M = 13.56, SD = 10.77, n = 39) was higher than that of the control group taught using the conventional teaching method (M = −14.69, SD = 14.22, n = 36). This suggests that students who learned through Duolingo demonstrated better speaking ability than those who learned through the conventional teaching method. The hypotheses tested were as follows:

1. If the significance value (Sig.) < 0.05 then H0 is rejected
2. If the significance value (Sig.) > 0.05 then H0 is accepted

The results of this study indicated a significant difference between the experimental and control groups. This showed that the use of Duolingo had a positive impact on students' English language learning abilities, particularly in speaking. It could be concluded that the use of Duolingo is effective in improving the speaking skills of 7th grade students at SMP Negeri 5 Sukawati.

Discussion

The results of this study show a significant influence on students' speaking ability through the use of Duolingo as a MALL-based learning medium compared to learning using conventional media. There are several factors that influence the results of this study to be significant, one of which is the use of technology. With the flexibility and accessibility provided by MALL, this will certainly be very helpful for students in learning. The use of Duolingo as a technology-based learning medium greatly encourages active student participation during the learning process.

Another factor that significantly influenced the results of this study was the gamification feature in Duolingo. The gamification features available in Duolingo include XP (experience points), levels, daily challenges, and rewards. The gamification features in Duolingo make students feel like they are learning in a game-like manner, as each student completes a level and daily challenges on Duolingo will earn experience points and receive a reward at the end of the lesson after successfully completing one level. The gamification features in Duolingo make students feel like they are learning in a game-like manner, as each student completes a level and daily challenges on Duolingo will earn experience points and receive a reward at the end of the lesson after successfully completing one level.

With these features, students become more interested and enthusiastic in participating in the learning process during the treatment. This shows that gamification effectively increases students' interest

and enthusiasm for learning compared to conventional teacher-centered learning methods. This causes students to be more active in doing speaking exercises independently through Duolingo to improve their speaking skills. It is proven that students' speaking skills have improved significantly after regularly practicing using Duolingo. Therefore, the improvement that occurs in students' speaking abilities is not only caused by the use of technology such as smartphone in the learning process, but the gamification features provided by Duolingo are able to increase students' interest and enthusiasm for learning. Therefore, Duolingo is in line with cognitive learning theory, because it helps students to be actively involved through structured practice, repeated cognitive engagement and direct feedback to gradually learn and develop skills, especially speaking.

Previous studies have also found similar results to the findings of this study. Silalahi et al. (2023), stated that grade VII junior high school students taught using Duolingo showed significant improvement in speaking skills compared to the control group. Another study by Rosita (2023), found that the Duolingo app had a significant effect on students' speaking skills in monologue tasks, with the experimental group's score increasing by 10.85 points, from the 68.97 to 79.82, while the control group's only increased by 3.21 points, from 60.72 to 72.93. Overall, all of this previous research supports the conclusion that Duolingo is effective for teaching speaking, and this is consistent with the findings of the study conducted at SMP Negeri 5 Sukawati.

CONCLUSION

This study aimed to test the effectiveness of using MALL through Duolingo on the speaking skills of seventh-grade students at SMP Negeri 5 Sukawati. Based on the research findings and discussions, the use of MALL through Duolingo had a positive impact on students' speaking ability. Based on the result of the hypothesis test using the Mann-Whitney U test with a significant value of 0.000, which was lower than 0.05, based on the results of the hypothesis test, it showed that the experimental group and the control group had different baseline conditions before the treatment was administered. Then the hypothesis was tested using a non-parametric test, especially ANCOVA Guade's, using the posttest score as the dependent variable and the pretest score as the covariate. The ANCOVA test results obtained a p-value of 0.00 lower than 0.05, based on the ANCOVA test results there was a significant difference between the experimental group and the control group. Therefore, it could be concluded that the use of MALL through Duolingo in students' speaking skills has proven effective. The use of Duolingo in training students' speaking skills through available interactive features such as speech recognition features, automatic corrections, and point systems after completing the exercises.

REFERENCE

Alfuhaid, S. R. (2021). The Utilisation of Duolingo to Enhance the Speaking Proficiency of EFL Secondary School Students in Saudi Arabia. *English Language Teaching*, *14*(11), 9. https://doi.org/10.5539/elt.v14n11p9

Ahmed, A. A. A., Hassan, I., Pallathadka, H., Keezhatta, M. S., Haryadi, R. N., Al Mashhadani, Z. I., Attwan, L. Y., & Rohi, A. (2022). Mall And Efl Learners' Speaking: Impacts Of Duolingo And Whatsapp Applications On Speaking Accuracy And Fluency. *Education Research International*,

2022. Https://Doi.Org/10.1155/2022/6716474

Azhima, F., & Halim, A. (2024). The Integration of Duolingo in Classroom Setting: A Case Study of its Impact on English Language Learning. *Riwayat: Educational Journal of History and Humanities*, *7*(3), 877-890.

Ayu Enjeli Silalahi, I., Maulana, I., & Dwi Febrina Sarumaha, I. (2023). *The Use Of Duolingo Application To Enhance Junior High School Students' Speaking Ability* (Vol. 7, Number 2).

Bela, R., & Rosita, A. (N.D.). *The Effectiveness Of Duolingo Application Towards The Students' Speaking Skill In Monologue Text At The Eighth Grade Of Smpn 1 Gending Thesis*.

Budiyanto, D., & Ridho, M. R. (2024). The Effect Of Duolingo In Teaching Speaking. *English Community Journal*, *8*(1), 39–47.

Djahimo, S. E. P. (2018). Student Anxiety And Their Speaking Performance: Teaching Efl To Indonesian Student. *International Journal Of Social Sciences And Humanities*. Https://Doi.Org/10.29332/Ijssh.V2n3.235

Shortt, M., Tilak, S., Kuznetcova, I., Martens, B., & Akinkuolie, B. (2023). Gamification in mobile-assisted language learning: A systematic review of Duolingo literature from public release of 2012 to early 2020. *Computer Assisted Language Learning*, *36*(3), 517-554.

Nurus Sufiyah Lailatul Hidayah, Faidatuz Zahroini Hasyim, & Abidatul Azizah. (2023). Mastering Language Skills: Exploring Key Aspects In Elt (English Language Teaching). *Digital Bisnis: Jurnal Publikasi Ilmu Manajemen Dan E-Commerce*, *2*(3), 386–405. Https://Doi.Org/10.30640/Digital.V2i3.1589

Rahayu, P., Eripuddin, E., Yu Jin, N., & Dinata, B. A. (2025). The Effect Of Using Duolingo Application On Students' Speaking Skill In Higher Education. *Al-Ishlah: Jurnal Pendidikan*, *17*(4), 6160–6171. Https://Doi.Org/10.35445/Alishlah.V17i4.7635

Zubair, A. M. (2022). *Experimental Research Design-Types & Process*.