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The Effectiveness of Pyramid Discussion Using Mobile Application in Enhancing English Speaking Competence

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ABSTRACT
This study aims to examine the effectiveness of the Pyramid Discussion method, supported by a mobile application, in enhancing students' English-speaking competence. A quantitative approach with a quasi-experimental design was employed, involving 58 students from two classes at SMK Nurul Hikmah Jonggol—29 students in the experimental group and 29 in the control group. Data on English-speaking competence were collected using a test instrument and analyzed through both descriptive and inferential statistics. Descriptive statistics were used to determine the mean, standard deviation, and standard error of the mean for the post-test scores, while inferential statistics were used to assess the effectiveness of the mobile-supported Pyramid Discussion method in improving the participants' English-speaking competence. The results indicate that the mean speaking score for the experimental group increased from 78.41 in the pre-test to 84.00 in the post-test, representing an improvement of 5.59 points. The Mann–Whitney U test revealed a statistically significant difference in the distribution of scores ($p < 0.001$). These findings suggest that integrating the Pyramid Discussion method with a mobile application serves as a promising alternative for teaching English-speaking skills.

Keywords: pyramid discussion, mobile application, English, speaking competence

Efektivitas Diskusi Piramida Menggunakan Aplikasi Seluler dalam Meningkatkan Kompetensi Berbicara Bahasa Inggris

ABSTRAK
Penelitian ini bertujuan untuk menguji efektivitas metode *Pyramid Discussion* (diskusi berjenjang) yang didukung oleh aplikasi seluler dalam meningkatkan kompetensi berbicara bahasa Inggris siswa. Penelitian ini menggunakan pendekatan kuantitatif dengan desain kuasi-eksperimen yang melibatkan 58 siswa dari dua kelas di SMK Nurul Hikmah Jonggol, yang terdiri dari 29 siswa dalam kelompok eksperimen dan 29 siswa dalam kelompok kontrol. Data kompetensi berbicara bahasa Inggris dikumpulkan menggunakan instrumen tes. Data penelitian dianalisis menggunakan statistik deskriptif dan statistik inferensial. Uji statistik deskriptif digunakan untuk menentukan nilai mean, simpangan baku, standar error mean data hasil postes kompetensi berbicara bahasa Inggris. Uji statistik inferensial digunakan untuk menentukan efektivitas metode *Pyramid Discussion* (diskusi berjenjang) yang didukung oleh aplikasi seluler dalam meningkatkan kompetensi berbicara bahasa Inggris anggota sampel. Hasil penelitian menunjukkan bahwa skor rata-rata kemampuan berbicara kelompok eksperimen meningkat dari 78,41 pada pretes menjadi 84,00 pada posttes, yang mencerminkan peningkatan sebesar 5,59 poin. Uji Mann–Whitney U menunjukkan adanya perbedaan yang signifikan secara statistik dalam distribusi skor ($p < 0,001$). Temuan ini menunjukkan bahwa mengintegrasikan *Pyramid Discussion* dengan dukungan aplikasi seluler dapat menjadi alternatif yang menjanjikan untuk pembelajaran keterampilan berbicara bahasa Inggris.

Kata kunci: pyramid discussion, aplikasi seluler, kompetensi berbicara, bahasa Inggris

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INTRODUCTION

Recent advancements in digital pedagogy have underscored the transformative potential of mobile applications in language learning, offering dynamic platforms for skill development beyond traditional classroom boundaries. Concurrently, pedagogical strategies that foster active student participation and collaborative learning have gained prominence in research, recognized for their efficacy in addressing the communicative demands of English as a Second Language (Bakhodirovna & Bakhtiyarovna, 2026; Sartini et al., 2024). While studies have explored the benefits of mobile applications for accessing materials and engaging in asynchronous learning (Sung & Liu, 2016), and independently examined collaborative techniques such as Pyramid Discussion for enhancing speaking performance (Buhari, 2019; Hasan, 2021), the integrated application of these two domains—specifically, leveraging mobile technology to support and amplify the efficacy of structured collaborative speaking exercises like Pyramid Discussion—remains an area requiring comprehensive investigation.

Spoken communication constitutes a fundamental component of language acquisition, enabling individuals to articulate ideas effectively and cultivate social connections (Buhari, 2019; Fatimah & Ismahani, 2025; Kariadi et al., 2025). Despite prolonged periods of instruction, a notable challenge persists, with some students struggling to achieve fluency in English. Indeed, spoken language is an omnipresent facet of daily existence, often overlooked in its significance (Thornbury, 2005). To enhance their speaking proficiency, students can engage in collaborative practice sessions with peers. Moreover, learners develop the capacity to comprehend spoken English, discerning meaning from the distinct characteristics of natural speech (Walker & Matthew, 2010). Human listeners exhibit a pronounced sensitivity to the unique vocal attributes of speech, exemplified by their capacity to identify numerous individuals solely through their voices in contexts such as telephone or radio exchanges (Barrass, 2006).

Concurrently, educators play a pivotal role in fostering speaking development by actively promoting frequent practice among students. Beyond encouragement, instructors can evaluate students' oral proficiency to facilitate targeted skill enhancement (Eshboyeva & Kizi, 2026; Simanjuntak, 2024). The evaluation of speaking proficiency is inherently a multi-faceted process. While assessment developers are central to the speaking assessment cycle, a broader spectrum of stakeholders, including test-takers, interlocutors, raters, and score users, actively contribute to this comprehensive endeavor (Louma, 2004).

Advances in digital technology have prompted universities to integrate mobile applications into English language learning. Various mobile-based learning applications—such as Google Classroom, Padlet, Flip (Flipgrid), Microsoft Teams, and even artificial intelligence-based apps—have made it easier for students to access materials, engage in discussions, and practice speaking in a flexible manner. However, in practice, these technologies are still primarily used as a medium for delivering course materials and collecting assignments rather than as tools capable of fostering active oral interaction. As a result, students continue to face limitations in developing their speaking skills because opportunities for collaborative speaking practice remain relatively scarce.

A problem that students sometimes face is that they are still unable to use the target language effectively, both in academic settings and in everyday conversation. Some of them are also afraid of making mistakes, so they are reluctant to participate. In the context of English language instruction, it is important for instructors to meet students' real-world professional demands. This leads instructors to seek ways to develop and evaluate their teaching practices to improve student performance. Some instructors still rely on outdated speaking teaching methods, such as repetitive drills, listening exercises, and memorizing dialogues. Students can benefit from technological advancements. Learning media can be understood as tools used in the learning process and to achieve learning objectives (Hikmah, 2019).

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Meanwhile, mobile application-assisted learning provides opportunities for teachers and students to explore new knowledge, share information, think critically, improve skills, and change their perspectives on teaching and learning concepts (Kusmaryani et al, 2018).

Lecturers prepare the best methods to help students improve their English skills, particularly their speaking skills. Instructors can use several approaches when teaching English. One approach considered effective for use in language classes is the Pyramid Discussion. The Pyramid Discussion is a group activity that is beneficial for students. This activity requires a sequence of different stages (Hasan, 2021). In this activity, discussions involve pairs and groups. Students participate in pair work, groups of four, and groups of eight. This process continues until the students are divided into the two largest groups in the class. Then, these groups share their ideas in a plenary session or whole-class discussion.

In a Pyramid Discussion, instructors help students build self-confidence by practicing and rehearsing the arguments they have used. The idea behind the Pyramid Discussion is that students should reach a consensus by the time they reach the top of the pyramid. To provide a clear understanding of the Pyramid Discussion as a strategy for teaching speaking, here are the steps for conducting it:

Step 1:
The instructor writes the assignment or question on the board.
Step 2:
Next, pair up the students and ask them to discuss the question; afterward, have them draw a conclusion.
Step 3:
Once the students have reached an agreement with their partners, the instructor combines the pairs into groups of four. At this stage, students must first report their conclusions and the reasons behind them, then reach a consensus as a group.
Step 4:
After the groups of four have reached a conclusion, the instructor can combine them into groups of eight. They repeat the same procedure: presenting their conclusions and then reaching a consensus as a larger group.
Step 5:
The lecturer continues to combine groups until the entire class is integrated.

Learning activities that use the Pyramid Discussion method encourage students to use appropriate language forms involving, for example, persuasion, arguments, logical questions, and rational exposition.

There are three advantages to using the Pyramid Discussion strategy, as follows (Hiratsuka, 2021):

1) This approach stimulates and engages students and provides a tangible purpose for English language practice.
2) Even the weakest students can contribute something when working in pairs. Since one of the goals is to build confidence in using English and to improve fluency, total accuracy can be overlooked.
3) All students practice listening and speaking at all times; in other words, they get the most out of the exercise by actually using English.

In the digital age—or the information age—science and technology are advancing at an ever-increasing pace. Institutions across various fields are leveraging technology for their development, including in the field of education. Faculty members have begun implementing mobile application-based learning. The Fourth Industrial Revolution is digital-based. Advances in technology and information have ushered the current generation into the world of digital literacy. The digital age has become an integral part of contemporary society, particularly in the world of education. This reality has made it easier and faster for people to access information and has opened up greater opportunities for them to seek out a wide variety of information (Anam et al, 2021).

Mobile applications offer many features, such as instant messaging via social media, web browsing, video players, voice recorders, and more. These features can be integrated into teaching and learning in ways that influence pedagogical approaches such as inquiry-based learning, self-directed learning, and assessment (Sung & Liu, 2016). Some examples of mobile applications include Talk: English Speaking Practice, Cake, Elsa Speak, BBC Learning English, and Babbel.

How effective is the use of the Pyramid Discussion method, supported by a mobile application, in improving students' English speaking competence? This constitutes the research question of this study.

This study aims to examine the effectiveness of the Pyramid Discussion method, supported by a mobile application, in enhancing students' English speaking competence. This is the objective of this research.

Speaking in a second language or a foreign language is often considered the most difficult of the four language skills. When attempting to speak, learners must organize their thoughts and encode those ideas into the vocabulary and syntactic structures of the target language. Speaking is the ability to produce language and share ideas (Pratiwi & Ayu, 2020). Strong English speaking proficiency is essential for college students. Students can always practice using English to ensure that communication flows well and smoothly. Speaking requires not only an understanding of how to produce linguistic competencies—such as grammar, pronunciation, and vocabulary—but also an understanding of sociolinguistic competencies, such as when, why, and how to speak (Zuhriyah, 2017).

Speaking skills are among the most important communication skills in the world. People use them to convey important information about others. This is especially true when speaking English—when we need to communicate with people in other countries, we must learn and use these skills. In teaching English speaking, instructors must be able to motivate students so they can speak English fluently and accurately. Speaking instruction is important for students to develop language skills in college so they can improve their skills in the future. They learn to express themselves with their peers. This is the most important way for them to build relationships with people from other countries in this era of globalization (Crisianita & Mandasari, 2022).

Prior research has established the pedagogical value of structured discussion formats for improving speaking skills, with studies like Buhari (2019) demonstrating that the Pyramid Discussion approach can significantly enhance both student speaking performance and classroom interaction. Similarly, Hiratsuka (2017) explored the implementation of Pyramid Discussion with pre-service teachers, highlighting its potential for developing communicative competence. Concurrently, the integration of mobile applications in language education has been recognized for its capacity to foster engagement and provide flexible learning opportunities (Karabatzaki et al., 2018; Kusmaryani et al., 2018). However, existing literature often examines these elements—specific discussion strategies and mobile technology integration, in isolation. For instance, while Leong & Ahmadi (2017) identified crucial factors influencing speaking proficiency such as motivation and anxiety, and mobile applications are recognized for their potential to address these (Sung & Liu, 2016), few studies have investigated the synergistic effect of combining a structured collaborative strategy like Pyramid Discussion with the technological affordances of mobile applications specifically for the purpose of improving students' English speaking competence.

Despite the established benefits of Pyramid Discussion for fostering active speaking practice and the growing integration of mobile applications in English language learning, a notable void exists in empirical research that synergistically investigates their combined impact. Existing studies have predominantly focused on either the implementation of discussion strategies (Buhari, 2019; Hasan, 2021) or the general utility of mobile

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applications for language acquisition (Karabatzaki et al., 2018; Kusmaryani et al., 2018). Consequently, there is a lack of empirical evidence specifically addressing how the structured, collaborative nature of the Pyramid Discussion, when augmented by the interactive and accessible features of mobile applications, influences students' English speaking proficiency. This study aims to bridge this gap by empirically evaluating the effectiveness of this integrated approach.

This research offers a novel contribution to the field by investigating the synergistic effect of the Pyramid Discussion strategy, renowned for its structured collaborative learning, and the ubiquitous integration of mobile applications in contemporary education. Unlike previous studies that examined these components in isolation, this paper presents the first empirical examination of how the combined implementation of Pyramid Discussion, facilitated by mobile application functionalities, can specifically enhance students' English speaking competence. This integrated approach is novel in its potential to not only leverage the inherent benefits of structured dialogue but also to capitalize on the personalized learning, immediate feedback, and enhanced accessibility afforded by mobile technology, thereby offering a more comprehensive and modern pedagogical solution for speaking skill development.

METHOD

This study is an experimental study, specifically using a quasi-experimental design, and the collected data were analyzed quantitatively. An experimental research design is a research method used to investigate the effect of a specific treatment on another variable under controlled conditions. An experimental research design can be defined as a research method grounded in the philosophy of positivism (Sugiyono, 2010, Fraenkel et al., 20212; Razak, 2017). This design is used to study a specific population or sample; data are collected using research instruments and analyzed quantitatively or statistically to test predetermined hypotheses. Additionally, in this design, a pretest is administered before the treatment, and a posttest is administered after the treatment. This research design is called a pretest-posttest nonequivalent group design because it involves two groups: an experimental group and a control group. The researcher selected two classes as the sample groups: an experimental class and a control class. In this study, the researcher used the Pyramid Discussion strategy for the experimental class and provided only an explanation of the material to the control class.

The data collection techniques used in this study were pretests, posttests, and documentation. The pretest aimed to assess the students' proficiency in spoken English before the intervention began. During the pretest, students were required to speak English while expressing their opinions on a topic such as leisure time. The results of this test served as an evaluation before the Pyramid Discussion strategy was implemented in the classroom. The posttest was then administered after the students received different treatments (class X MPLB 6 was taught using the Pyramid Discussion strategy, while class X MPLB 5 was taught without any specific strategy). Based on the test scores, this study will examine the effect of the Pyramid Discussion strategy on students' speaking ability. These scores will then be compared with the pretest results. In this context, the researcher aims to determine the extent to which the Pyramid Discussion strategy influences students' speaking skills. The researcher will use a camera to take photos during the teaching and learning process.

The quantitative data was then presented in numerical form. In this study, two groups were involved. The first group was the experimental group, in which participants received instruction using the Pyramid Discussion learning method supported by a mobile application. The second group was the control group, in which participants learned through conventional teaching methods and media.

After the data were collected, normality test was conducted. The normality test was performed to determine whether the data followed a normal

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distribution and was calculated using the SPSS software. Next, to measure the difference between the pretest and posttest scores Mann–Whitney U test was conducted. The questionnaire used a 4-point Likert scale: very agree, agree, disagreel, and very disagree. The questionnaire results were then calculated and presented as percentages. The sample for this study consisted of tenth class students at SMK Nurul Hikmah Jonggol. The experimental class (X MPLB 6) comprised 29 students, and the control class (X MPLB 5) comprised 29 students. Sampling is the process of selecting units (e.g., people, organizations) from a population of interest so that by studying the sample, we can generalize our research results back to the population from which they were selected (Fulcher, 2014).

RESULTS

The determination of the effectiveness of the "Pyramid Discussion" method—supported by a mobile application—in enhancing the English-speaking competence of students at SMK Nurul Hikmah Jonggol is analyzed through several stages. These stages begin with the presentation of pre-test and post-test results for English-speaking competence among students in the control group and the experimental group at SMK Nurul Hikmah Jonggol, followed by prerequisite testing and an assessment of the effectiveness of the Pyramid Discussion method (supported by a mobile application) in improving the students' English-speaking competence. The full analysis is presented in the points below.

1. Pretest and Post-test Results for the Control Group

Descriptive statistics for the English speaking competence pretest data of the control group show a mean of 75.451 and a standard deviation of 5.810 (N = 29). Descriptive statistics for the English speaking competence post-test data of the control group show a mean of 73.863 and a standard deviation of 4.642 (N = 29) (Figure 1).

Descriptive Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Pretest	29	75,451	5,810	1,079
Post-test	29	73,863	5,642	1,048

Figure 1
SPSS Screenshot of Descriptive Statistics for the Control Group's Pretest and Post-test Data

2. Pretest and Post-test Results for the Treatment Group

Descriptive statistics for the English speaking competence pretest data of the treatment group show a mean of 78.414 and a standard deviation of 5.342 (N = 29). Descriptive statistics for the English speaking competence post-test data of the treatment group show a mean of 84.00 and a standard deviation of 3.173 (N = 29) (Figure 2).

Descriptive Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Pretest	29	78,414	5,342	0,992
Post-test	29	84,000	3,174	0,589

Figure 2
SPSS Screenshot of Descriptive Statistics for the Treatment Group's Pretest and Post-test Data

3. Normality Test

Prerequisite testing involves a test for homogeneity of population variances and a test for the normality of the curve. All these prerequisite tests are conducted using SPSS software, version 25.

The results of the Kolmogorov–Smirnov test for the experimental group's pretest data indicate a non-normal distribution, as evidenced by a significance value of 0.001 (< 0.05). In contrast, the posttest data are shown to be normally distributed, with a significance value of 0.055 (> 0.05) (Figure 3).

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Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pretest_exp	0,223	29	0,001	0,855	29	0,001
post_exp	0,175	29	0,023	0,930	29	0,055

Figure 3
SPSS Screenshot of Normality Test for the Experimental Group

The results of the Kolmogorov–Smirnov test for the control group's pre-test data indicate a normal distribution, as evidenced by a significance (sig.) value of 0.284, which is greater than 0.05. The same applies to the post-test data, with a significance (sig.) value of 0.064, which is also greater than 0.05 (Figure 4).

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pretest_contr	0,128	29	.200*	0,957	29	0,284
post_contr	0,138	29	0,171	0,932	29	0,064

Figure 4
SPSS Screenshot of Normality Test for the Control Group

Since the normality test results indicate that the data are not entirely normally distributed, the homogeneity test was not performed. This is because, even if the data were homogeneous, the use of parametric inferential statistical procedures would not be appropriate. Consequently, the assessment of the effectiveness of the "pyramid discussion" method—facilitated by a mobile application—in improving English-speaking competence was shifted to the use of nonparametric inferential statistics.

4. Effectiveness of Pyramid Discussions Using a Mobile Application in Improving English Speaking Competence

The Mann-Whitney U test was employed to analyze the post-test data on English speaking competence from the control group sample and the experimental group sample. The test results are presented in Figure 5 below.

Independent-Samples Mann-Whitney U Test	
Paired Samples Wilcoxon-W Test	
Total N	58
Mann-Whitney U	706.500
Wilcoxon-W	1141.500
Test Statistic	706.500
Standard Error	64.041
Standardized Test Statistic	4.466
Asymp. Sig. (2-sided test)	0.000

Figure 5
SPSS Screenshot of Mann-Whitney U Test Results

Based on the results of the Mann–Whitney U test in Table 3, the U value was 706.500 (W = 1141.500), the standardized test statistic was 4.466, and the two-tailed asymptotic significance value was 0.000 ($p < 0.001$). The mean rank for the pretest group was 19.64, while that for the posttest group was 39.36. These results indicate a significant difference between the pretest and posttest scores. Thus, the null hypothesis (H0), which states that there is no difference in the distribution of scores between the two groups, is rejected. The higher mean rank for the posttest also indicates that posttest scores tend to be higher than pretest scores. Overall, the results of the descriptive analysis and the Mann–Whitney U test indicate an improvement in students' speaking skills following the implementation of English language instruction using Pyramid Discussion aided by a mobile application, as evidenced by an increase in the average score from 78.41 to 84.00 and a statistically significant difference ($p < 0.001$).

DISCUSSION

Based on the results of the data analysis using SPSS in Table 1, it can be seen that there was an increase in students' speaking skills after they received the instructional intervention. Based on the Descriptive Statistics table, the sample size analyzed was 29 students. The mean score on the pretest was 78.41 with a standard deviation of 5.34,

while the mean score on the posttest increased to 84.00 with a standard deviation of 3.17. Thus, there was an increase in the mean score of 5.59 points after the implementation of the instructional intervention. In addition, the smaller standard deviation of the posttest indicates that the variation in students' scores after the intervention tended to be lower than before the intervention.

Based on the results of the descriptive statistical analysis, the control class showed a slight increase in students' English speaking skills from the pretest to the posttest. The mean score increased from 76.93 in the pretest to 78.93 in the posttest, indicating a difference of only 2.00 points. Furthermore, the standard deviation increased from 5.730 to 6.836, suggesting a slightly wider distribution of students' scores in the posttest. The median score also increased marginally from 78.00 to 80.00. Despite this slight improvement, the descriptive statistics indicate that the students' speaking performance did not demonstrate substantial progress during the learning process. This suggests that the instructional approach implemented in the control class was not sufficiently effective in producing meaningful improvements in students' English speaking skills. Therefore, the overall improvement in the control class can be considered relatively limited.

Furthermore, the results of the normality test in Table 2 indicate that the pretest and posttest data do not fully meet the assumption of a normal distribution. Based on the Shapiro–Wilk test, the significance value for the pretest was 0.001, which is less than 0.05, indicating that the pretest data are not normally distributed. Meanwhile, the significance value for the posttest was 0.055, which is greater than 0.05, indicating that the posttest data do not show a significant deviation from a normal distribution. The results of the Kolmogorov–Smirnov test also showed a significance value of 0.001 for the pretest and 0.023 for the posttest, both of which were less than 0.05. Considering these results, nonparametric statistical tests were considered appropriate.

Based on the results of the Mann–Whitney U test in Table 3, the U value was 706.500 (W = 1141.500), the standardized test statistic was 4.466, and the two-tailed asymptotic significance value was 0.000 ($p < 0.001$). The mean rank for the pretest group was 19.64, while that for the posttest group was 39.36. These results indicate a significant difference between the pretest and posttest scores. Thus, the null hypothesis (H0), which states that there is no difference in the distribution of scores between the two groups, is rejected. The higher mean rank for the posttest also indicates that posttest scores tend to be higher than pretest scores. Overall, the results of the descriptive analysis and the Mann–Whitney U test indicate an improvement in students' speaking skills following the implementation of English language instruction using Pyramid Discussion aided by a mobile application, as evidenced by an increase in the average score from 78.41 to 84.00 and a statistically significant difference ($p < 0.001$).

Based on the Wilcoxon Signed-Rank Test results, the experimental class demonstrated a statistically significant improvement in students' English speaking skills from the pretest to the posttest. The results indicated that all 29 students obtained higher scores in the posttest than in the pretest, as reflected in the positive ranks (N = 29), with a mean rank of 15.00 and a sum of ranks of 435.00. There were no negative ranks or ties, indicating that none of the students experienced a decrease or maintained the same score. Furthermore, the test statistics revealed a Z-value of -4.714 with an Asymp. Sig. (2-tailed) value of 0.000 (p less than 0.05). Therefore, the null hypothesis (H0) was rejected, and the alternative hypothesis (H1) was accepted. These findings indicate that the learning treatment implemented in the experimental class resulted in a statistically significant improvement in students' English speaking skills.

In contrast, the Wilcoxon Signed-Rank Test results for the control class revealed a statistically significant decrease in students' English speaking scores from the pretest to the posttest. The results showed that 24 students obtained lower scores in the posttest than in the pretest, as indicated by the negative ranks (N = 24), with a mean rank of 12.50

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and a sum of ranks of 300.00. Meanwhile, none of the students demonstrated an improvement in their speaking scores, as the positive ranks were zero (N = 0). Additionally, five students maintained the same scores in both tests (ties = 5). The test statistics showed a Z-value of -4.351 and an Asymp. Sig. (2-tailed) value of 0.000 (p less than 0.05). Thus, the null hypothesis (H0) was rejected, indicating a statistically significant difference between the pretest and posttest scores. These findings suggest that the instructional approach implemented in the control class did not contribute to improving students' English speaking skills. Instead, most students experienced a decline in their speaking performance after the learning process.

Overall, the Wilcoxon Signed-Rank Test results demonstrate contrasting patterns between the two classes. In the experimental class, all 29 students experienced improvements in their English speaking scores, whereas in the control class, 24 students experienced decreases, and five students showed no change. These findings suggest that the treatment applied in the experimental class was associated with positive developments in students' English speaking performance, while the conventional instructional approach in the control class did not produce similar improvements. Therefore, the findings provide preliminary statistical evidence supporting the effectiveness of the instructional treatment in the experimental class.

CONCLUSION

This study concludes that the implementation of Pyramid Discussion supported by a mobile application has the potential to enhance students' English speaking competence. The findings revealed an increase in the experimental group's mean speaking score from 78.41 in the pretest to 84.00 in the posttest, representing an improvement of 5.59 points. Furthermore, the Mann–Whitney U test indicated a statistically significant difference in the score distributions ($p < 0.001$), providing evidence of improved speaking performance following the instructional intervention. These findings suggest that the gradual discussion process, which moves from pairs to larger groups, can provide students with opportunities to express opinions, exchange ideas, organize arguments, and participate more actively in English communication.

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REFERENCES

Anam K, et.al. (2021). Efektifitas Penggunaan Media Digital dalam Proses Belajar Mengajar. *Genderang Asa: Journal of Primary Education*, 2 (2), 76-87. https://journal.iainlhokseumawe.ac.id/index.php/genderangasa/article/view/161/31

Bakhodirovna, A.S., & Bakhtiyarovna, R. S. (2026). Innovative Approaches to Teaching English as a Second Language [Dataset]. *The Journalof Applied Science and Social Science* (Vol. 16, Issue 03, 832–843). Zenodo. https://doi.org/10.5281/zenodo.19273600

Barrass R. (2006). Speaking for Yourself. New York: Routledge.

Buhari, B. (2019). Practicing Discussion in the Form of Pyramid to Improve Students' Speaking Performance and Classroom Interaction. *JOLLT: Journal of Language and Language Teaching*, 7 (2), 108-116.

Crisianita, S., & Mandasari, B. (2022). The Use of Small-Group Discussion to Improve Students' Speaking Skill. *Journal of Research on Language Education (JoRLE)*, 3 (1), 61-66.

Eshboyeva, F. K., & Kizi, M. N. U. (2026). Methods for Enhancing English Speaking Skills in the Classroom. *Maktabgacha Va Maktab Ta'limi Jurnali*, 4(1), 11–15.

Fatimah, D., & Ismahani, S. (2025). Students' Perception of the Use of Mobile Application Pingolearn in Learning to Speak English. *Cetta: Jurnal Ilmu Pendidikan,* 8(2), 241–251.

Fraenkel, J. R., Wallen, E. W., & Hyun, H. H. (2012). *How to Design and Evaluate Research in Education*. New York: McGraw-Hill.

Fulcher, G. (2014). Testing Second Language Speaking. New York.

Hasan, S. (2021). The Influence of Pyramid Discussion towards Students' Speaking Ability. *JETALL: Journal of English Teaching, Applied Linguistics and Literature*, 4 (1), 33-38.

Hikmah D. (2019). Media for Language Teaching and Learning in Digital Era. *International Journal of English Education Linguistics (IJoEEL)*, 1 (02), 84-89.

Hiratsuka, T. (2021). A Study Into the Pyramid Discussion Approach with Pre-service English Teachers in Japan. *ITJ: Indonesian Tesol Journal*, 1 (1), 88-102.

Karabatzaki, Z. et al. (2018). Mobile Application Tools for Students in Secondary Education. An Evaluation Study. *IJIM*, 12(2), 142-161. https://online-journals.org/index.php/i-jim/article/view/8158/4871

Kariadi, M.T., Alfairuza, E.F., & Andini, N.P. (2025). Using Free4talk Application to Improve Students' Speaking Skill. *Jurnal Vokasia*, 5(1), 25-34

Kusmaryani, W., Musthafa, B., & Purnawarman, P. (2018). The Influence of Mobile Applications on Students' Speaking Skill and Critical Thinking in English Language Learning. *International Conference of Computer and Informatics Engineering (IC2IE),* 1193,1-6.

Leong, L. M., & Ahmadi, S. M. (2017). An Analysis of Factors Influencing Learners' English Speaking Skill. *International Journal of Research in English Education*, 2 (1), 34-41.

Louma S. (2004). Assessing Speaking. Cambridge: Cambridge University Press.

Pratiwi, ZF, & Ayu, M. (2020). The Use of Describing Picture Strategy to Improve Secondary Students' Speaking Skill. *Journal of English Language Teaching and Learning (JELTL)*, 1 (2), 38-43.

Razak, A. (2017). *Metode Riset: Menggapai Mixed Methods Bidang Pembelajaran Bahasa Indonesia.* Pekanbaru: Ababil Press.

Sartini, S., Ratih, K., & Fauziati, E. (2024). Innovative Pedagogies: Enhancing ELT/ TESOL through Technology and Collaboration. *JLE: Journal of Literate of English Education Study Program*, 5(2), 136-146.

Simanjuntak, M.B. (2024). Fostering Child Empowerment through English Language Competency in Speaking Skills. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*. https://doi.org/10.31004/obsesi.v8i2.5400

Sugiyono, S. (2010). Metode Penelitian Pendidikan Kuantitatif, Kualitatif, dan R&D. Bandung.

Sung, Y., Chang, K., & Liu, T. (2016). The Effects of Integrating Mobile Devices with Teaching and Learning on Students' Learning Performance: A Meta-Analysis and Research Synthesis. *Comput. Educ*, 94, 252-275.

Thornbury, S. (2005). How to Teach Speaking. London: Pearson Education.

Walker, M. L., & Matthew, C. (2010). Speak Easy. Lafayette: Cupola Press.

Zuhriyah, M. (2017). Storytelling to Improve Students' Speaking Skill. *English Education: Jurnal Tadris Bahasa Inggris*, 10 (1),119-134.