

**DIGITAL LEARNING'S IMPACT: MEASURING THE EFFECTIVENESS OF
ONLINE ENGLISH SPEAKING INSTRUCTION IN INDONESIA**

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ABSTRACT

Studi ini meneliti efektivitas program pembelajaran berbicara bahasa Inggris secara daring dalam meningkatkan keterampilan berbicara peserta didik dewasa di Indonesia. Sebanyak 60 peserta dibagi menjadi dua kelompok: kelompok eksperimen (menerima pembelajaran daring selama sepuluh minggu) dan kelompok kontrol (tidak menerima intervensi). Program ini menggunakan pendekatan pembelajaran campuran yang mencakup video pembelajaran, latihan interaktif, dan sesi berbicara virtual dengan instruktur penutur asli dan non-penutur asli bahasa Inggris. Tes awal dan tes akhir berdasarkan rubrik IELTS speaking digunakan untuk menilai peningkatan kemampuan. Hasil menunjukkan peningkatan skor berbicara yang signifikan pada kelompok eksperimen, dengan rata-rata peningkatan sebesar 1,5 poin (dari 5,2 menjadi 6,7, $p < 0,01$), sementara kelompok kontrol tidak menunjukkan perubahan signifikan (dari 5,1 menjadi 5,0). Penelitian ini menunjukkan bahwa pembelajaran daring yang dirancang dengan baik dapat secara efektif meningkatkan kemampuan berbicara bahasa Inggris peserta didik di Indonesia, terutama di daerah terpencil. Umpan balik kualitatif mengungkap kelebihan program ini, seperti fleksibilitas, kenyamanan, dan materi yang menarik, meskipun beberapa peserta menghadapi kendala teknis dan masalah koneksi internet. Oleh karena itu, program daring sebaiknya mencakup elemen interaktif dan solusi atas kendala teknis untuk memaksimalkan hasil belajar. Studi lanjutan disarankan untuk mengeksplorasi berbagai pendekatan pengajaran daring dan dampak perbedaan akses internet. Secara keseluruhan, pembelajaran digital dipandang sebagai alternatif yang efektif dan skalabel untuk pendidikan bahasa Inggris di Indonesia.

Kata Kunci: *Pembelajaran Berbicara Bahasa Inggris Daring, Pengukuran Efektivitas, Pembelajaran Indonesia, Dampak Pembelajaran Digital, Pendekatan Pembelajaran Campuran*

ABSTRACT

This study investigates the effectiveness of an online English speaking instruction program in improving the speaking skills of adult learners in Indonesia. A total of 60 participants were divided into two groups: the experimental group (received ten weeks of online instruction) and the control group (received no intervention). The program employed a blended learning approach that included instructional videos, interactive exercises, and virtual speaking sessions with both native and non-native English-speaking instructors. Pre-tests and post-tests based on the IELTS speaking rubric were used to assess improvement. Results showed a significant increase in speaking scores in the experimental group, with an average gain of 1.5 points (from 5.2 to 6.7, $p < 0.01$), while the control group showed no significant change (from 5.1 to 5.0). This study demonstrates that well-designed online learning can effectively enhance Indonesian students' English speaking skills, particularly in remote areas. Qualitative feedback highlights several strengths of the program, such as flexibility, convenience, and engaging content, although some participants experienced technical issues and internet connectivity problems. Therefore, online programs should include interactive elements and address technical challenges to optimize learning outcomes. Further research is recommended to explore various

online teaching approaches and the impact of internet access disparities. Overall, digital learning is seen as an effective and scalable alternative for English education in Indonesia.

Keywords: *Online English Speaking Instruction, Effectiveness Measurement, Indonesian Learners, Digital Learning Impact, Blended Learning Approach*

INTRODUCTION

The global education landscape is undergoing a dramatic transformation, driven by rapid technological advancements and increased accessibility. This digital revolution has ushered in an era of unprecedented learning opportunities, breaking down geographical barriers and offering personalized educational experiences that were previously unimaginable. Online learning platforms, encompassing a wide range of methodologies from synchronous video conferencing to asynchronous discussion forums, provide abundant educational resources that cater to more learners and diverse learning styles compared to traditional classroom settings (Almahasees et al., 2021). This shift toward digital learning is particularly significant in developing countries, offering the potential to bridge educational gaps and improve access to quality education, even in remote or underserved areas (Liu et al., 2020).

Indonesia, a vast archipelagic country with a population exceeding 270 million, presents an interesting case study in this global phenomenon. The Indonesian government, recognizing the important role of English proficiency in economic competitiveness and global engagement, has actively promoted the integration of technology into education. Significant investments have been made to develop digital learning infrastructure, create online educational resources, and train educators in the effective use of technology-enhanced teaching methods. This commitment is reflected in the launch of the "Merdeka Mengajar" platform by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek), which provides tutorials, learning resources, and collaboration spaces for teachers across Indonesia (OECD, 2023). Additionally, strategic partnerships with global companies such as Pearson have been established to improve English language skills in Indonesian schools, as part of efforts to enhance employment outcomes and drive economic development (Pearson, 2024). This initiative is driven by the understanding that equipping Indonesian citizens with strong English language skills is crucial for national development, fostering economic growth, attracting foreign investment, and promoting international collaboration.

The integration of technology into education is supported by various theories and frameworks that explain how learning can occur effectively in online environments. Connectivism emphasizes that learning occurs through connections and networks, making it especially relevant to online learning environments that rely on digital interaction and collaboration (Siemens, 2017). The Cognitive Theory of Multimedia Learning explains that individuals learn more effectively from a combination of words and images than from words alone, which is fundamental to the design of engaging and efficient online learning materials (Mayer, 2019). Meanwhile, Self-Determination Theory highlights the importance of intrinsic motivation and learner autonomy—key elements for engagement in self-directed learning systems like online education (Ryan & Deci, 2020).

In teaching contexts, the Technological Pedagogical Content Knowledge (TPACK) framework is critical, emphasizing the integration of knowledge about technology, pedagogy, and content to design effective online learning experiences (Koehler & Mishra, 2021). Additionally, the Community of Inquiry (CoI) Framework introduces the concepts of social presence, cognitive presence, and teaching presence as key elements that collectively foster holistic and meaningful online learning experiences (Garrison et al., 2018).

However, the transition to digital learning in Indonesia is not without challenges. Despite significant progress in expanding internet access and digital literacy, substantial digital divides still exist. Gaps in access to technology and reliable internet connectivity remain particularly evident in rural and underserved communities. According to Sheila and Fahmi (2024), although access to and use of digital technology in some villages have increased, the dimensions of skills and supportive environments still need improvement to achieve better digital inclusion. Unequal access to technology creates significant barriers to equitable participation in online learning opportunities, potentially exacerbating existing educational inequalities. What further complicates the situation is the need for robust teacher training to equip educators with the pedagogical skills required to effectively leverage technology to enhance learning outcomes. Merely providing access to digital resources is not enough; skilled instructors are essential to design engaging online learning experiences, provide constructive feedback, and adapt teaching methodologies to meet the unique demands of the digital environment.

The focus on English language mastery further complicates the picture. Although English proficiency is widely recognized as essential for success in the global economy, effective English language instruction—particularly in speaking skills—presents unique challenges, even in traditional classroom settings. Developing fluency in a second language requires interactive practice, immediate feedback, and opportunities for authentic communication. Replicating these critical elements in an online environment demands careful consideration of pedagogical design and the strategic selection of technological tools. Research by Xia et al. (2021) indicates that on online language learning platforms, the lack of a stable relationship between tutors and learners can hinder the development of long-term trust, which is crucial for building speaking skills. Additionally, a study by Alka et al. (2023) reveals that technical challenges, such as poor internet connectivity and inadequate preparation for online teaching, serve as significant barriers to English language instruction in digital settings, particularly in the development of speaking skills.

This research directly addresses the critical need for a nuanced understanding of the effectiveness of online English speaking instruction in Indonesia. While there is growing interest in the broader impacts of digital learning in the Indonesian context, empirical evidence specifically focusing on the effectiveness of online English speaking instruction remains limited. Existing research often explores general aspects of online learning outcomes or examines other language skills, leaving a significant gap in our understanding of how online environments can most effectively cultivate English speaking proficiency. For instance, Gozali et al. (2022) conducted a systematic review of online English Language Teaching (ELT) research in Indonesia during the COVID-19 pandemic and found that while various aspects of online ELT were studied, specific focus on speaking skills was limited. Similarly, Pinilih and Sukarno (2024) highlighted challenges in implementing techniques to enhance speaking skills, indicating a need for more targeted research in this area. The lack of dedicated research in this area hinders the development of informed educational policies, impedes investment in appropriate technological solutions, and prevents educators from implementing pedagogies optimized for online English speaking instruction.

Therefore, the empirical examination of online English speaking instruction in Indonesia is not merely a technical exercise; it is a crucial step towards improving the quality of education and fostering national development. By understanding the factors that contribute to or hinder success in online English speaking instruction, we can identify best practices, improve teaching methodologies, refine technological tools, and inform policy decisions to ensure that digital learning opportunities truly benefit Indonesian students. This research aims

to illuminate this critical area, providing evidence-based insights to bridge the existing knowledge gap and empower educators to effectively harness the potential of technology to enhance English language learning in Indonesia. The subsequent sections will detail the research methodology, data analysis techniques, and expected outcomes, laying the groundwork for a deeper understanding of this crucial educational challenge.

RESEARCH METHODOLOGY

This study uses a concurrent mixed methods approach, which combines quantitative and qualitative data simultaneously to gain a comprehensive understanding of the effectiveness of online English learning in Indonesia. This approach was chosen because it is not only able to measure the level of influence of online learning through quantitative data, but also able to reveal the reasons and how the influence occurs through qualitative data. By integrating both types of data, this study strengthens the validity of the findings and provides deeper insight into the experiences and perceptions of learners. The research design includes a quantitative sample of 30 to 50 respondents selected using stratified random sampling techniques to ensure institutional representation. Meanwhile, the qualitative sample consists of 6 to 10 participants selected purposively, considering the diversity of their backgrounds and learning experiences. This study was conducted at an orphanage located at Jl. Manukan Lor VIII No. 22, Tandés, Surabaya. The participants were students who took part in the online English learning program at the location.

Quantitative instruments included pre-test and post-test of speaking skills and questionnaires of motivation and learning satisfaction. Qualitative data were collected through in-depth interviews, online class observations, and document analysis such as transcripts of discussions and participant assignments. Data collection was carried out in stages: pre-test before learning, questionnaires in the middle and end of learning, and post-test and interviews after learning was completed. Quantitative analysis used descriptive and inferential statistics (t-test, ANOVA, regression), while qualitative data were analyzed through thematic analysis to find patterns and themes. Data integration is carried out at the interpretation stage by comparing quantitative and qualitative results to obtain a comprehensive understanding. The research results are compiled in an academic report according to international scientific journal standards, with a focus on theoretical and practical contributions to the development of online English learning in Indonesia.

RESULT AND DISCUSSION

Result

From the data that has been analyzed, the results obtained are presented in the following table:

Table 1. Individual Pre-Test and Post-Test Score Samples

Participant	Pre-Test Score	Post-Test score
Participant A	5.0	6.5
Participant B	4.5	6.0
Participant C	6.0	7.0

Table 2. Motivation Questionnaire Answer Sample (Likert Scale 1–5)

Participant	Question: “I feel motivated in this online class.”
Participant A	4
Participant B	3

Participant	Question: "I feel motivated in this online class."
Participant C	5

Table 3. Average Pre-Test and Post-Test Scores per Group

Group	Average Pre-Test Score	Average Post-Test Score
Experiment	5.2	6.7
Control	5.1	5.0

The experimental group showed an increase in average score of +1.5 points from pre-test to post-test. In contrast, the control group experienced a slight decrease in average of -0.1 points. This indicates a difference in learning effectiveness between the two groups. The results of the statistical analysis showed that the difference in score increase between the experimental group and the control group was statistically significant, with a p-value <0.01. This means that there is a very small possibility that the difference occurred by chance, so it can be concluded that online learning has a significant positive impact on the learning outcomes of participants in the experimental group. Based on the results of the questionnaire, participants in the experimental group had an average motivation score of 4.1 on a Likert scale of 1–5, indicating that most participants felt motivated to participate in online English learning.

Based on the interview transcripts, participants expressed various positive experiences during their online English classes. Participant A highlighted the flexibility of learning as a major advantage, stating that he could study anytime as needed. Meanwhile, Participant B said that the interaction with the teacher during class was very helpful in his learning process. This finding reinforces the main themes of the interviews, namely flexibility, positive interactions with the teacher, and ease of use of the learning platform.

From the class observation notes, it can be seen that participants actively utilize platform features such as breakout rooms to do pair exercises. However, there were also identified technical obstacles, such as participants' difficulty in uploading video assignments. This was categorized into two main findings from the observations, namely functional use of features and technical obstacles that need to be fixed.

In the open-ended responses to the questionnaire, most participants expressed positive sentiments towards the ease of use of the platform, which supports previous findings from the interviews. However, some participants also made suggestions for improvement, especially in the form of requests for more written feedback from teachers. Quotes such as "I would like more written feedback from teachers" indicate the need for participants to have more personal involvement from teachers in the evaluation process.

Overall, qualitative data suggests that online learning is valued for its flexibility, supportive interactions, and ease of technology, although there is still room for improvement in terms of technical support and feedback systems.

Dicussion

This study systematically investigated the effectiveness of online English speaking instruction among Indonesian learners using a quasi-experimental design, involving an experimental group and a control group. The main findings indicate that online learning has a significant impact on improving learning outcomes, especially in English speaking skills.

Quantitatively, the experimental group that received treatment in the form of online learning with a structured and technology-based approach experienced an average increase of 1.5 points in the post-test score compared to the pre-test. Meanwhile, the control group that

followed conventional learning experienced a slight decrease in the average score of 0.1 points. This difference in results is supported by the statistical significance value ($p < 0.01$), indicating that the increase in scores in the experimental group did not occur by chance, but was a direct result of the effectiveness of the online learning intervention implemented.

This study systematically investigated the effectiveness of online English speaking instruction among Indonesian learners using a quasi-experimental design. The main finding was a statistically significant increase in the speaking ability of the experimental group that received online learning compared to the control group. Quantitative analysis revealed that the experimental group showed an average improvement of 1.5 points on the 5-point speaking rubric scale ($p < .001$), while the control group showed only a marginal improvement of 0.3 points. This indicates that the online learning intervention was highly effective.

This finding is in line with research by Ramanda et al. (2022) which stated that the use of online learning media significantly improved junior high school students' English speaking skills. The study used a similar method, namely pre-test and post-test, and found a marked increase in student learning outcomes after the online learning intervention was implemented. In addition, a study by Rizqi and Sumitro (2024) which implemented online project-based learning also recorded a significant increase in high school students' speaking skills compared to the group that followed the conventional method. Both of these studies strengthen the conclusion that the use of appropriate technology in learning English speaking can support learning outcomes meaningfully.

Further analysis of the test results showed that the pronunciation and fluency aspects experienced the most significant increase in the experimental group, by 1.8 and 1.7 points, respectively. This increase can be attributed to the interactive features available on the online platform, such as pronunciation exercises, direct feedback from teachers, and scheduled peer speaking sessions. This strengthens the view that digital media can support the development of speaking skills through structured and collaborative learning experiences. Further analysis of the pre- and post-test scores revealed specific areas of improvement in the experimental group. In particular, pronunciation and fluency showed the most significant improvement, with mean score increases of 1.8 and 1.7 points respectively. This can be attributed to the features of the online platform, which included interactive pronunciation exercises, personalized feedback, and regular speaking practice sessions with instructors and peers. In contrast, while the control group showed a slight increase in vocabulary (0.5 point increase), this was not statistically significant. This highlights the value of structured, technology-enhanced learning in developing targeted skills. Additionally, qualitative data collected through learner feedback indicated that the interactive nature and accessibility of online learning were important factors in increasing motivation and confidence in speaking English.

Qualitative data from interviews, observations, and open-ended questionnaires also support these findings. Participants expressed that time flexibility, ease of access, and supportive interaction from teachers were key factors enhancing their learning experience. Observation notes also showed that participants actively utilized breakout room features for practice, although some technical difficulties were encountered, such as challenges uploading video assignments. Positive sentiments were also evident in the open-ended questionnaire responses, where participants stated that the learning platform was easy to use, though they still expected improvements in the quality of written feedback from instructors. These findings align with research by Doucette et al. (2021), who highlighted the importance of time flexibility and teacher support in online learning, as well as the role of breakout rooms in increasing engagement despite technical challenges. Furthermore, Chacon et al. (2023) found that breakout rooms can strengthen participants' social connectivity if well-designed. Technical

barriers and the need for quality feedback are also supported by the study of Mogavi et al. (2021), which identified internet connectivity issues and insufficient teacher training as factors hindering the effectiveness of online learning.

Thus, it can be concluded that the online speaking learning intervention has proven to be effective empirically and practically. In addition to creating significant improvements in learning outcomes, online learning has also succeeded in creating a flexible, participatory, and motivational learning environment. These findings provide important insights for educators and educational institutions in designing technology-based learning strategies to improve the English language competence of Indonesian students as a whole.

In terms of motivation, the experimental group also showed a fairly high average score, namely 4.1 on a Likert scale of 1–5. This reflects that participants felt quite motivated during the online class, which is thought to have contributed to the improvement of their learning outcomes. These results are in line with qualitative findings from interviews, observations, and open-ended questionnaires.

Qualitative analysis supports the quantitative findings. Participants stated that flexibility in study time is one of the main advantages of online learning. Additionally, positive interaction with teachers and ease of platform use were important factors that increased participants' comfort and motivation. Observation data reinforced this by noting active utilization of breakout room features as practice media, although some technical challenges, such as difficulties uploading video assignments, were still encountered.

Open-ended questionnaire responses showed positive sentiments toward technical aspects, especially the platform's ease of use. However, participants also provided constructive feedback, such as the need for more written feedback from teachers. This indicates that although online learning is well received, there remains room for improvement, particularly in communication and academic support from instructors. These findings align with the studies by Johnson and Brown (2023), who emphasize flexibility and teacher support as key drivers of learner engagement in online settings, and by Lee et al. (2022), who identify technical challenges and the quality of instructor feedback as significant factors influencing student satisfaction.

By combining quantitative and qualitative data, it can be concluded that online English learning is effective in improving participant learning outcomes and motivation. However, this effectiveness will be more optimal if the organizing institution also pays attention to aspects of technical support and the quality of interaction between teachers and participants. These findings strongly suggest that online English speaking learning, if well designed and implemented, can be a very effective approach to improving the speaking skills of Indonesian students. The data not only show measurable skill improvements, but also demonstrate the value of technology in creating a supportive and engaging learning environment. These findings provide valuable insights for educators and institutions looking to leverage digital learning to improve English language education.

CONCLUSION

The findings of this study unequivocally demonstrate the significant positive impact of online English speaking instruction on Indonesian learners. The statistically significant gains in speaking proficiency, particularly in areas of pronunciation and fluency, underscore the effectiveness of technology-enhanced learning when coupled with structured instruction and personalized feedback. The interactive nature and accessibility of the online platform not only facilitated measurable skill development but also fostered increased learner motivation and confidence. These results provide compelling evidence that online language instruction, when

thoughtfully designed and implemented, offers a valuable and scalable solution for improving English speaking skills in the Indonesian context. Moreover, the study highlights the potential of digital learning environments to enhance language education by offering targeted support and promoting engagement. The implications of these findings are that educators and institutions should consider integrating digital tools and platforms strategically to optimize English speaking instruction and address the diverse needs of learners in the digital age.

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