



Overcoming English Speaking Challenges: A Role-Playing Simulation Approach in Vocational Education

Merla Madjid¹

¹Politeknik ATI Makassar, South Sulawesi, Indonesia

*Corresponding Author: Merla Madjid

Email: merla@atim.ac.id



Article Info

Article history:

Received 17 July 2025

Received in revised form 27

August 2025

Accepted 14 September 2025

Keywords:

Role-Playing Simulation

English Speaking Skills

Vocational Education

Constructivist learning

Abstract

The ability to speak English is crucial in today's globalized era, especially for vocational students in agro-industrial engineering. However, traditional teaching methods often fail to develop speaking skills effectively, leading to low confidence and motivation among students. Constructivist theories emphasize active student involvement and real-life simulations as effective learning approaches. This study aimed to evaluate the effectiveness of the role-playing simulation method in improving the English-speaking skills of Agro-Industrial Engineering students at Politeknik ATI Makassar. A quasi-experimental research design with a mixed-method approach was employed. The participants were 30 second-semester students. Data were collected through speaking tests (Test 1, Test 2, Test 3), observation sheets, and interviews. Quantitative data were analyzed using descriptive statistics and Cohen's *d* for effect size. The research involved six meetings with various business communication scenarios. The average speaking test scores significantly increased from 66.67 (Test 1) to 75.03 (Test 2) and 81.27 (Test 3). Cohen's *d* values indicated a medium effect for Test 1 vs Test 2 ($d=0.72$) and Test 2 vs Test 3 ($d=0.61$), and a large effect for Test 1 vs Test 3 ($d=1.29$). Students showed increased confidence, motivation, and active participation, with more intelligent students assisting their peers. The role-playing simulation method significantly improved English-speaking skills, confidence, and motivation among agro-industrial engineering students. This method provides a practical and effective alternative to conventional teaching, aligning with constructivist learning principles and preparing students for industry needs. Future research should explore this method in different contexts with larger sample sizes.

Introduction

The ability to speak English is one of the fundamental skills that are crucial in today's globalized era. In the context of vocational education, particularly in agro-industrial engineering, English communication skills are highly needed to prepare students to face the increasingly competitive job market (PremilaSwamy, 2021; Alharbi, 2022; Warschauer, 2000). English speaking skills are necessary not only for academic purposes but also for business communication, product presentations, and professional interactions with international partners in the agro-industry (Roshid & Kankaanranta, 2023; Mezentseva et al., 2022; Chatsungnoen, 2015).

However, in practice, learning English speaking skills still faces various significant challenges. Initial observations indicate that students in the Agro-Industrial Engineering study program experience difficulties in developing their speaking skills, particularly in terms of confidence, learning motivation, and effective communication abilities. Low confidence during group discussions and a lack of motivation in learning business English are the main issues that need

to be addressed through innovative and effective learning approaches (Tayag et al., 2024; Ehsan et al., 2019; Hunter et al., 2010; Gunawan et al., 2025).

Traditional teaching methods, which often focus on teacher-centered approaches, frequently fail to provide enough opportunities for students to optimally develop their speaking skills (Tang, 2023; Lancaster, 2017; Muganga & Ssenkusu, 2019). The conventional approach, which emphasizes grammatical and theoretical aspects without providing sufficient practice, tends to create a gap between language knowledge and the ability to use the language in real communication situations. As a result, students may have a good understanding of language structure but struggle to apply it in practical communication contexts.

In the context of second-language learning, constructivism theories emphasize the importance of active student involvement in the learning process (Idham & Halid, 2024; Mvududu & Thiel-Burgess, 2012). Effective learning occurs when students can construct their knowledge through direct experience and social interaction. These principles support the use of more interactive and participatory learning methods, where students are not only passive recipients of information but are also actively engaged in the learning process through simulations of real-life situations.

Role-playing simulations have emerged as a promising teaching method to address challenges in learning English speaking skills (Muslim, 2018; Sarifudin & Setyawan, 2025; López et al., 2025). This method allows students to practice using the target language in situations that closely resemble real conditions, thus improving confidence and reducing communication anxiety. Through role-playing simulations, students can develop speaking skills in various business communication contexts relevant to their field of study.

The advantage of the role-playing simulation method lies in its ability to create a fun and challenging learning environment. This method allows students to explore various roles and communication situations, from business introductions and product presentations to job interviews (Gebhard et al., 2019; Osgerby, 2013; Dannels, 2003). Therefore, students can gain diverse and comprehensive practical experience in using English for professional purposes.

Previous studies have shown that using role-playing simulations in language learning can enhance students' learning motivation, confidence, and communication skills (Pinatih, 2021; Biynazarova et al., 2024; Axrorova, 2024; López et al., 2025; Giménez, 2024). However, there is limited research specifically examining the effectiveness of this method in teaching business English for agro-industrial engineering students. This research is essential to fill this knowledge gap and provide practical contributions to the development of more effective teaching methods.

At Politeknik ATI Makassar, particularly in the Agro-Industrial Engineering program, the implementation of role-playing simulation methods is expected to be an alternative solution to improve students' English-speaking skills. Considering the characteristics of vocational students who are more focused on practical application, this method is seen as appropriate for meeting the learning needs that prioritize direct experience and relevance to the professional world.

Based on this background, this study aims to evaluate the effectiveness of the role-playing simulation method in improving the English-speaking skills of Agro-Industrial Engineering students at Politeknik ATI Makassar. This research uses a quasi-experimental design with a mixed-method approach to analyze the impact of implementing the role-playing simulation method on students' speaking abilities through various business communication situations relevant to their field of study.

The findings of this study are expected to make a significant contribution to the development of more effective English language teaching methods that align with the characteristics of vocational students. Additionally, this research is also expected to serve as a reference for other vocational educational institutions in developing innovative English language learning strategies that are oriented towards industry needs, thus improving the competitiveness of graduates in facing global challenges in the agro-industrial engineering field.

Methods

A quasi-experimental mixed-methods research was used to determine the efficacy of role-playing simulation in improving the English-speaking abilities of students. The participants of the intervention were 30 second-semester students of the ATI Makassar Polytechnic Agro-Industrial Engineering Study Program (13 men and 17 women). The selection of the class was due to the perceived issue in speaking proficiency, especially the low self-confidence and motivation in learning Business English. The intervention involved six lessons at the language laboratory, which were dealing with certain situations of business communication, like introductions, product presentation, phone calls, and job interviews. The sessions were facilitated by the lecturer, who also led discussions and supported the cooperation between students by assigning more proficient students to less proficient students in order to balance participation.

Various tools were used in the data collection process but they included speaking tests, observation sheets, semi structured interviews and student journals. The speech tests were performed in three sessions (pre-test, mid-test, and post-test) and were assessed in the four key areas; grammar, vocabulary, fluency, and comprehension. Student engagement and group interaction during role-play were evaluated using observation sheets and interviews and journals gave information on student perceptions and changes in motivation. Descriptive statistics, paired sample t-tests, and computing effect sizes were the methods of analyzing quantitative data. The results indicated that the mean scores of the students did increase considerably with the pre-test group having a mean of 66.67 and the mid-test and the post-test recording a mean of 75.03 and 81.27 respectively. The statistical significance of the improvements at each stage was verified using paired sample t-tests and Cohen d showed that the effect between Test 1 and Test 2 ($d = 0.72$), Test 2 and Test 3 ($d = 0.61$) was medium, and the effect between Test 1 and Test 3 ($d = 1.29$) was large. These findings show that the intervention had both sustained and significant effects on speaking performance.

Along with quantitative results, there were qualitative results showing significant changes in behavior and attitudes among the students. Thematic analysis of journals and interviews revealed that majority of students were more likely to be confident and motivated to use English after carrying out role-play. Students who were passive in the beginning became more active with time, demonstrating more readiness to participate in the conversation and simulations. It was also observed in terms of observation that dynamics of collaborative learning were developed wherein stronger students started to support weaker students, and in doing so, more inclusive and supportive learning environments were formed. This quantitative and qualitative evidence is a strong indication that role-playing simulations not only did not hurt the technical speaking skills but also made the students more confident and motivated and more engaged in the classroom.

Results and Discussion

This study involved six meetings that addressed topics implemented through role-playing simulation methods, namely: business introductions (social meetings in business meetings),

getting directions, products and services, making presentations, telephone conversations, product ordering, and job interviews. During these activities, the instructor observed, guided, and motivated students to be more active. The instructor also placed more intelligent students in groups to help weaker students and provided assessment through observation sheets. All materials were prepared and given to students before meetings to help them understand the material and prepare themselves to play roles according to the given topics.

In the first and second meetings, which discussed business introductions and getting directions, students were placed as if they were in business meetings, meeting important clients and getting acquainted with many people. They were asked to create business cards that would be used as identities in these roles. They were also asked to inquire about the locations of their new colleagues' offices and try to identify those locations. Since this was the first time students engaged in role-playing, some students appeared less serious, somewhat passive, still shy, and had difficulty performing their roles well. Some students were still reading texts and were less expressive in performing their roles. More intelligent students dominated, but they also helped weaker students speak and enjoy the situation. Assessment was based on group cooperation, expression, and pronunciation.

In the third and fourth meetings, which discussed products and services and making presentations, students were asked to read materials about how to give good presentations and bring product brochures. They played the role of senior marketing personnel who would give presentations to several entrepreneurs. This material was interesting to them, especially since they were learning about marketing, so students became more active, although there were two or three students who remained passive. Students began to be more serious and enjoy their roles as senior marketing personnel and audiences in company presentations, with research showing that performing role plays multiple times allows students to apply feedback, refine their language, and build confidence. Some students showed good development and improved their performance. They learned to be good listeners and speakers, respect others' opinions, and not dominate discussion sessions.

In the fifth and sixth meetings, which discussed telephone conversations, product ordering, and job interviews, students were asked to read materials about how to communicate well by phone and prepare brochures for food products and hotel services. They played the role of restaurant servers and hotel staff who provided information about food and hotel services to customers. This material was also interesting to them because they were learning about communication. Students became more active and enjoyed the role-playing. They began to be serious and tried to be professional by answering questions about products and restaurant and hotel facilities. Some students showed increased confidence and ability, with appreciation and accomplishment being significant factors in motivating students and boosting their self-confidence, competence, and self-esteem. They learned how to provide good information to customers by practicing it.

Overall, the use of role-playing simulation in this study showed positive tendencies. Significant improvement can be seen from the results of students' speaking ability improvement recorded in the three tests conducted. Although the improvement was not very high, this method was quite successful because it allowed students to be more confident in using the language and understand English by helping each other in role-playing simulation.

Table 1. Student Speaking Test Results

Test Stage	Mean Score	Standard Deviation
Pre-Test (Test 1)	66.67	5.82

Mid-Test (Test 2)	75.03	6.15
Post-Test (Test 3)	81.27	7.04

The implementation of role-playing simulation resulted in significant improvements in students' English-speaking performance. As shown in Table 1, the mean score in the pre-test was 66.67 (SD = 5.82), which increased to 75.03 (SD = 6.15) in the mid-test and 81.27 (SD = 7.04) in the post-test. These findings indicate a steady upward trend across all test stages, suggesting that the intervention was effective in enhancing speaking ability.

Table 2. Effect Size and Significance Analysis

Comparison	t-value	p-value	Cohen's d	Interpretation
Test 1 vs Test 2	4.76	< 0.01	0.72	Medium Effect
Test 2 vs Test 3	3.12	< 0.05	0.61	Medium Effect
Test 1 vs Test 3	7.88	< 0.001	1.29	Large Effect

Paired sample t-test results confirmed that the improvements were statistically significant across all comparisons (see Table 2). Between Test 1 and Test 2, the increase was significant ($t = 4.76$, $p < 0.01$) with a medium effect size ($d = 0.72$), showing that even at the early stage of the intervention, students' speaking ability improved meaningfully. Between Test 2 and Test 3, the improvement was also significant ($t = 3.12$, $p < 0.05$) with another medium effect size ($d = 0.61$), indicating that students continued to develop their skills consistently. The largest and most significant improvement was observed between Test 1 and Test 3 ($t = 7.88$, $p < 0.001$) with a large effect size ($d = 1.29$), demonstrating that the full course of role-playing activities had a substantial impact on students' English-speaking competence.

The statistical results were supported by qualitative findings from observations, interviews, and journals. Initially, many students were hesitant, shy, and reliant on written scripts; however, by the fourth and fifth sessions, most became more spontaneous and confident in using English. Interviews revealed that students found role-playing to be enjoyable, practical, and closely related to real-life communication needs in business contexts. Journal reflections also highlighted increased self-confidence, reduced anxiety, and higher motivation to use English actively. Observational data confirmed that stronger students supported their peers, leading to a collaborative and inclusive learning environment.

Taken together, both the quantitative and qualitative evidence clearly show that role-playing simulation is an effective approach for improving English-speaking skills among vocational students. The medium and large effect sizes demonstrate measurable and substantial progress, while the qualitative results highlight psychological and motivational benefits. This dual impact suggests that role-playing not only strengthens technical language ability but also fosters the confidence, engagement, and collaborative skills necessary for long-term communicative competence.

Graph 1 shows the visualization of students' speaking competency development after implementing role-playing simulation. It can be seen that there are significant changes in each test. For example, there were eight students who scored more than 90 in Test 3 and two students who showed significant differences, who previously scored 40 in Test 1, then increased to 65 and 75 in Test 2 and Test 3.

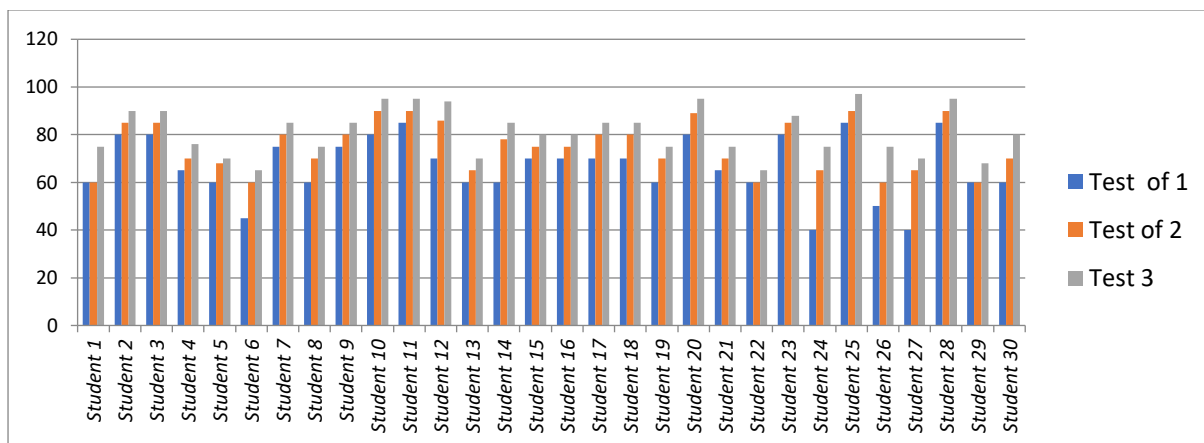


Figure 1. Student Speaking Competency Progress

This improvement occurred because the simulation used was more compatible with students' existing mental structures. They were more actively involved in the learning process, felt part of the class itself, and the role-playing method helped them reduce lack of confidence and fear of making mistakes when expressing their opinions. This is very important in building their motivation to learn English, which was previously considered difficult, with research showing that motivation, self-efficacy, and willingness to communicate are significantly affected by interactive learning strategies. Students who showed score improvement were also active in class and felt more confident in practicing English after the intervention. Questionnaire results also showed that role-playing simulation was preferred by students because it allowed them to be more active in using the target language, with studies showing significant improvements in motivation and anxiety reduction through interactive learning platforms.

The figure 1 shows improvement in students' speaking achievement, with the total average score increasing from 66.67 in Test 1, to 75.03 in Test 2, and reaching 81.27 in Test 3. These results demonstrate positive and significant progress in students' speaking ability after undergoing the role-playing simulation method.

To measure the magnitude of the influence of the role-playing simulation method on improving students' speaking skills, effect size analysis using Cohen's *d* was conducted. The following are the results of comparisons between tests:

Table 3. Effect Size Analysis Result

Comparison	Cohen's <i>d</i>	Interpretation
Test 1 vs Test 2	0.72	Medium effect
Test 2 vs Test 3	0.61	Medium effect
Test 1 vs Test 3	1.29	Large effect

Based on the table above, Cohen's *d* values show medium effects in the Test 1 vs Test 2 comparison ($d = 0.72$) and Test 2 vs Test 3 comparison ($d = 0.61$), following Cohen's guidelines of $d = 0.20$, 0.50 , and 0.80 to interpret observed effect sizes as small, medium, or large, respectively. This indicates moderate improvement in students' speaking ability after each intervention stage. The Test 1 vs Test 3 comparison shows a large effect ($d = 1.29$), indicating very significant improvement in students' speaking skills after the entire intervention. This large effect size is comparable to other recent studies in language learning, where VR-enhanced learning experiences showed substantial positive impact with Cohen's $d = 1.82$.

Table 4. Speaking Test Results by Assessment Aspect

Assessment Aspect	Pre-Test (Mean ± SD)	Mid-Test (Mean ± SD)	Post-Test (Mean ± SD)	Improvement (%)
Grammar	65.20 ± 6.10	72.15 ± 6.40	78.35 ± 7.05	+20.16%
Vocabulary	67.40 ± 5.95	75.25 ± 6.30	82.60 ± 6.85	+22.47%
Fluency	66.10 ± 5.75	74.05 ± 6.20	80.90 ± 7.15	+22.36%
Comprehension	68.00 ± 5.50	78.65 ± 6.05	83.20 ± 6.90	+22.35%
Overall Mean	66.67 ± 5.82	75.03 ± 6.15	81.27 ± 7.04	+21.91%

Table 4 provides a clear overview of how students' speaking abilities developed in four key areas, namely grammar, vocabulary, fluency, and comprehension. At the beginning of the study, grammar was the weakest aspect, but over time students showed steady progress in constructing accurate sentences within professional contexts. Vocabulary achieved the greatest improvement, which indicates that learners were able to expand their word choices and apply them effectively in simulated business exchanges. Fluency also displayed notable gains as students became more comfortable speaking spontaneously and showed less dependence on written notes. Comprehension improved significantly, which suggests that students were better able to follow conversations and respond appropriately during role-play activities. The overall mean increased by more than twenty percent, showing that the intervention supported balanced growth across all aspects of speaking competence. This balanced improvement is particularly important in vocational education where learners need comprehensive communication skills for workplace readiness.

Table 5. Distribution of Student Score Improvements

Improvement Category	Number of Students	Percentage
Improvement > 15 points	8 students	26.7%
Improvement 10–15 points	12 students	40.0%
Improvement 5–9 points	7 students	23.3%
Improvement < 5 points	3 students	10.0%
Total	30 students	100%

Table 5 illustrates the range of individual improvements that occurred during the intervention. The results show that more than two thirds of the participants improved their scores by at least ten points, with almost one third achieving gains of more than fifteen points. Such increases demonstrate that the method was especially effective for learners who initially struggled with confidence and speaking ability. Twelve students achieved improvements between ten and fifteen points, which represents steady and meaningful progress. Seven students improved between five and nine points, while only three students experienced limited progress of fewer than five points. The variation in outcomes may be linked to factors such as persistent anxiety or lack of preparation. Despite these differences, the overall trend shows that the role-playing simulation had a positive impact on the majority of students. This distribution also highlights the importance of offering additional support to learners who progress at a slower pace, while confirming that the method can be widely effective in a vocational context.

Table 6. Classroom Participation Observation Results

Participation Indicator	Session 1–2	Session 3–4	Session 5–6	Change Trend
Students speaking voluntarily	35%	60%	80%	Increasing

Students reading from text while speaking	55%	35%	15%	Decreasing
Peer support and collaboration	40%	70%	85%	Increasing
Students showing confidence	30%	55%	75%	Increasing

Table 6 captures the transformation in classroom participation observed throughout the six sessions. At the start of the intervention, just over one third of the students were willing to speak voluntarily, and more than half relied heavily on reading from texts. As the sessions advanced, participation became increasingly dynamic. By the mid-point of the program, sixty percent of students spoke voluntarily, and by the final sessions this figure had risen to eighty percent. Dependence on written scripts fell sharply to only fifteen percent by the end. Levels of peer support also grew, with stronger students providing active assistance to their classmates, which created an inclusive and encouraging atmosphere. Confidence followed the same upward trend, beginning at thirty percent and rising to seventy five percent by the end of the study. These patterns reveal that role-playing simulation not only improved speaking skills in measurable terms but also reshaped the classroom into a collaborative and empowering space where students felt more secure experimenting with the language.

Table 7. Excerpts from Student Interviews/Journals

Respondent Code	Student Statement Excerpt	Interpretation
R5	“At first I was afraid to speak, but after doing role-plays several times, I feel braver and not embarrassed anymore.”	Growth in self-confidence
R12	“This method made me feel like I was in the workplace, so I became more motivated to learn English.”	Motivation increased due to workplace relevance
R19	“I was helped because classmates who were better at English supported me during presentations.”	Evidence of peer collaboration
R24	“If I only learn theory, I get bored quickly. Role-play is more enjoyable and challenging.”	Interactive method increases engagement

Table 7 presents insights from students’ reflections in interviews and journals, which enrich the numerical findings by showing personal experiences. Many students reported that their confidence increased during the program, with one learner explaining that they were initially afraid to speak but later felt braver and less embarrassed after repeated practice. Others noted that the activities resembled workplace situations, which made the learning process more motivating and relevant. Peer collaboration was another recurring theme, with several participants acknowledging the valuable support they received from more proficient classmates during role-playing tasks. Some students highlighted the enjoyable nature of the method, explaining that role-play was more engaging and challenging compared to traditional theory-based instruction, which often left them bored. These accounts reveal important psychological changes, as fear was replaced with confidence, lack of interest was replaced with motivation, and isolation was replaced with collaborative learning. When considered alongside the quantitative results, these student voices confirm that role-playing simulation fostered measurable language gains as well as deeper improvements in mindset and attitude toward communication.

The results of this study demonstrate that the implementation of role-playing simulation methods provides a significantly positive impact on improving English speaking skills among students in the Agro-Industrial Engineering Study Program at ATI Makassar Polytechnic. The increase in average scores from 66.67 in Test 1 to 81.27 in Test 3 shows that this method successfully created a conducive learning environment for developing students' oral communication abilities. These findings are consistent with research conducted by various experts showing that role-playing simulation can improve students' confidence and speaking ability in the target language (Jayanti, 2022; Togimin & Jaafar, 2020; Maarof, 2018; Yen et al., 2015; Katemba & Garce, 2023).

Effect size analysis using Cohen's d showed very promising results, with a value of $d = 1.29$ for the Test 1 vs Test 3 comparison, indicating a large effect. This value shows that the role-playing simulation method provides a substantial impact on improving students' speaking ability. These results are comparable to previous research conducted by VR-enhanced learning studies that showed Cohen's $d = 1.82$, but are still in the very good category for language learning contexts (Yan et al., 2024). This comparison shows that conventional role-playing simulation methods still have competitive effectiveness compared to current learning technologies.

The consistent progress from each test stage shows that learning through role-playing simulation provides a sustained impact on the development of students' speaking abilities. The medium effects shown in the Test 1 vs Test 2 comparison ($d = 0.72$) and Test 2 vs Test 3 comparison ($d = 0.61$) indicate that improvement occurred gradually and consistently. This consistency of improvement shows that the role-playing simulation method provides a strong foundation for continuous learning.

The findings of this study support constructivist theory in language learning, where constructivism holds that learners construct knowledge rather than just passively take in information, as people experience the world and reflect upon those experiences, they build their own representations and incorporate new information into their pre-existing knowledge (Kumari, 2022). Role-play involves learners taking specific roles and acting out scenarios that mimic real-life situations, providing a safe environment for practice while encouraging active participation, creativity, and spontaneous language use (Dwi & Lolita, 2023; Perwitasari, 2025; Mayordomo-Ortiz & Javadinejad, 2025). In the context of agro-industrial engineering students, simulating business situations such as product presentations, telephone conversations, and job interviews provides direct relevance to their professional needs. This differs from conventional learning approaches that often focus on theoretical aspects without providing adequate practical application opportunities.

Analysis of student participation during the learning process shows an interesting pattern. In early meetings, some students showed reluctance and lack of confidence, but gradually they began to show increased involvement and enthusiasm. This phenomenon is consistent with research showing that role-play is an effective technique to animate the teaching and learning atmosphere, arouse the interests of learners, and make the language acquisition impressive (Yang, 2024; Henisah et al., 2023; Tandipayuk et al., 2023). The transformation from passive to active attitudes shows that the role-playing simulation method not only improves technical speaking abilities but also develops psychological aspects such as confidence and learning motivation.

The success of the role-playing simulation method in this study can also be seen from the aspects of collaboration and group cooperation. Observations showed that more intelligent students naturally helped their peers who experienced difficulties, creating a mutually

supportive learning environment. This dynamic aligns with cooperative learning principles that emphasize the importance of social interaction in the learning process. The benefits of collaborative learning include development of higher-level thinking, oral communication, self-management, and leadership skills, promotion of student-faculty interaction, increase in student retention, self-esteem, and responsibility. Unlike competitive individual learning, this method creates a collaborative atmosphere that encourages all students to develop together.

The context of business English learning in this study provides a practical dimension that is very relevant to vocational students' needs. Materials covering business introductions, product presentations, telephone conversations, and job interviews provide skills that can be directly applied in the workplace. This differs from some previous studies that focused on general academic contexts. The relevance of materials to students' field of study proved to increase their motivation and involvement in the learning process, as seen from the increased enthusiasm in subsequent meetings.

From a research methodology perspective, the use of a quasi-experimental design with three measurement stages provides a comprehensive picture of the effectiveness of the role-playing simulation method. The mixed-method approach that combines quantitative and qualitative data provides stronger validation of research findings. Questionnaire results showing student preferences for the role-playing simulation method support quantitative findings that show improvement in speaking ability. This data triangulation provides high credibility to the research conclusions.

Nevertheless, this study also identifies several challenges in implementing the role-playing simulation method. In the initial stages, some students showed resistance and reluctance to participate actively, which can be related to cultural factors and previous learning experiences that were more teacher-centered. This phenomenon requires special strategies from facilitators to create a supportive environment and reduce student anxiety. The lecturer's role as a facilitator who guides, motivates, and observes proved to be very important in the successful implementation of this method.

The practical implications of this research's findings are very relevant for curriculum development and learning strategies in vocational education institutions. The success of the role-playing simulation method in improving English speaking skills shows that more interactive and applicative learning approaches can provide more optimal results compared to conventional methods. This supports the 21st-century learning paradigm that emphasizes the importance of communication, collaboration, and creativity skills in preparing students to face workplace challenges.

The limitations of this study lie in the relatively small sample size (30 students) and specific context (Agro-Industrial Engineering Study Program), which may limit the generalization of findings to a broader population. However, the large effect size (Cohen's $d = 1.29$) shows that these findings have high practical significance. Future research can explore the implementation of role-playing simulation methods in different contexts with larger sample sizes to strengthen the generalization of findings.

In 2025, constructivist learning theory could be more relevant than ever as educators look to problem-based learning to prepare students for complex, real-world challenges. The findings of this study demonstrate that constructivism in education is an approach that focuses on allowing students to construct their own understanding of a subject by actively engaging with the material presented to them, emphasizing learner-centric approaches where the student takes ownership of their knowledge.

Overall, this study provides strong empirical evidence about the effectiveness of role-playing simulation methods in improving students' English speaking skills. These findings not only contribute to the development of language learning theory but also provide practical guidance for educators in designing more effective learning strategies. Considering the context of vocational students who require practical and applicative skills, the role-playing simulation method proves to be a promising alternative for improving the quality of English language learning in vocational education institutions.

Conclusion

This study provides compelling empirical evidence for the effectiveness of the role-playing simulation method in enhancing English speaking skills among students in the Agro-Industrial Engineering Study Program at Politeknik ATI Makassar. The significant improvement in average speaking test scores, from an initial 66.67 to a final 81.27, unequivocally demonstrates the positive impact of this interactive learning approach. Furthermore, the effect size analysis using Cohen's d revealed a substantial overall improvement ($d=1.29$), indicating that role-playing simulations offer a highly practical and impactful intervention for language acquisition in vocational contexts. This finding is particularly noteworthy as it suggests that even without advanced technological enhancements, well-designed role-playing activities can yield results comparable to more technologically intensive methods.

The success of this method can be attributed to its alignment with constructivist learning theories, which emphasize active engagement and the construction of knowledge through direct experience. By simulating real-world business communication scenarios such as product presentations, telephone conversations, and job interviews, students were able to practice and internalize language skills in a context directly relevant to their future careers. This practical relevance not only fostered skill development but also significantly boosted student motivation and confidence, transforming initially passive learners into active and enthusiastic participants. The collaborative environment observed, where more proficient students naturally supported their peers, further underscores the method's ability to create a supportive and effective learning ecosystem.

Despite its demonstrated efficacy, the study acknowledges certain limitations. The relatively small sample size of 30 students and the specific context of an agro-industrial engineering program may limit the generalizability of these findings to broader populations or different educational settings. Additionally, initial student reluctance and shyness highlight the need for skilled facilitation to overcome initial barriers and cultivate a comfortable learning environment. Future research could address these limitations by replicating the study with larger and more diverse student populations, exploring the long-term retention of skills, and investigating the impact of various facilitator strategies on student engagement and outcomes. Nevertheless, this research offers valuable insights for educators seeking to implement innovative and effective English language teaching methodologies that cater to the practical needs of vocational students, ultimately enhancing their competitiveness in the global job market.

References

- Alharbi, W. (2022). Students' perceptions and challenges in learning business English: Understanding students' needs and job market requirements. *International Journal of Learning, Teaching and Educational Research*, 21(12), 65-87. <http://dx.doi.org/10.26803/ijlter.21.12.4>

- Axrorova, M. (2024). USING ROLE-PLAYING TO ENHANCE COMMUNICATION SKILLS IN LANGUAGE LEARNING. *Academic research in educational sciences*, 5(11), 74-82.
- Biynazarova, N., Abdimomunova, A., Dzhilkibaeva, N., Takenova, Z., & Asanova, D. (2024). The Use of Interactive Techniques, Role-Playing Games, and Dramatization to Increase Linguistic Creativity and Motivation of Students. *Jurnal arbitrer*, 11(3), 360-372. <https://doi.org/10.25077/ar.11.3.360-372.2024>
- Chatsungnoen, P. (2015). *Needs analysis for an English for Specific Purposes (ESP) course for Thai undergraduates in a Food Science and Technology programme: a thesis presented in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Education, Massey University, Palmerston North, New Zealand* (Doctoral dissertation, Massey University).
- Dannels, D. P. (2003). Teaching and learning design presentations in engineering: Contradictions between academic and workplace activity systems. *Journal of Business and Technical Communication*, 17(2), 139-169. <http://dx.doi.org/10.29252/ijree.3.3.63>
- Dwi, A., & Lolita, Y. (2023). The Effectiveness of Role Play in Improving Speaking Skill of EFL Students. *Prosodi*, 17, 138–148. <https://doi.org/10.21107/prosodi.v17i2.17064>
- Ehsan, N., Vida, S., & Mehdi, N. (2019). The impact of cooperative learning on developing speaking ability and motivation toward learning English. *Journal of language and education*, 5(3 (19)), 83-101. <http://dx.doi.org/10.17323/jle.2019.9809>
- Gebhard, P., Schneeberger, T., André, E., Baur, T., Damian, I., Mehlmann, G., ... Langer, M. (2019). Serious Games for Training Social Skills in Job Interviews. *IEEE Transactions on Games*, 11, 340–351. <https://doi.org/10.1109/TG.2018.2808525>
- Giménez, A. (2024). The effects of role-playing games in second language acquisition. *Ñemityrã*, 6(3), 34-55. <https://doi.org/10.47133/NEMITYRA20240603c-A4>
- Goodarzi, A., & Namaziandost, E. (2025). A mixed-methods study on the effects of online dynamic assessment on L2 learners' motivation and speaking anxiety: Beyond the classroom perspectives. *Computers in Human Behavior Reports*, 17, 100584. <https://doi.org/10.1016/j.chbr.2024.100584>
- Gunawan, Y. I., Ahsani, N., & Putra, A. S. (2025). Building Critical Thinking and Self-Confidence in Speaking Class for Non-Native English Speakers: Obstacles and Perspectives. *Journal of Problem Based Learning in Higher Education*. <http://dx.doi.org/10.54337/ojs.jpblhe.v13i1.10036>
- Henisah, R., Margana, M., Putri, R. Y., & Khan, H. S. (2023). Role play technique to improve students' speaking skills. *International Journal of Contemporary Studies in Education (IJ-CSE)*, 2(3), 176-182. <https://doi.org/10.1177/10468781251345322>
- Hunter, J. D., Vickery, J., & Smyth, R. (2010). Enhancing learning outcomes through group work in an internationalised undergraduate business education context. *Journal of Management & Organization*, 16(5), 700-714. <http://dx.doi.org/10.5172/jmo.2010.16.5.700>

- Idham, L. & Halid. (2024). Constructivist Approach to Language Learning: Linking Piaget's Theory to Modern Educational Practice. *INTERACTION: Jurnal Pendidikan Bahasa*. <https://doi.org/10.36232/interactionjournal.v11i2.33>
- Jayanti, L. N. (2022). Role Play for Fostering Young Learner's Soft Skill in Speaking English. *Vivid: Journal of Language and Literature*. <https://doi.org/10.25077/vj.11.2.127-131.2022>
- Katempa, C. V., & Grace, R. M. (2023). Role-playing improves speaking proficiency skills. *Acuity: Journal of English Language Pedagogy, Literature and Culture*, 8(2), 244-268. <https://doi.org/10.35974/acuity.v8i2.3153>
- Kumari, G. (2022). Constructivism in Learning. *Educational Quest- An International Journal of Education and Applied Social Sciences*. <https://doi.org/10.30954/2230-7311.3.2022.5>
- Lancaster, R. W. (2017). *A comparison of student-centered and teacher-centered learning approaches in one alternative learning classroom environment*. Arkansas State University.
- López, J. C., Novo, E. P., & Tenesaca, J. B. (2025). Communicative language teaching through role playing activities to develop English speaking skills. *Universidad y Sociedad*, 17(2), e5061-e5061.
- López, J. C., Novo, E. P., & Tenesaca, J. B. (2025). Communicative language teaching through role playing activities to develop English speaking skills. *Universidad y Sociedad*, 17(2), e5061-e5061. <http://dx.doi.org/10.30829/vis.v21i1.4234>
- Maarof, N. (2018). The effect of role-play and simulation approach on enhancing ESL oral communication skills. *International Journal of Research in English Education*, 3(3), 63-71. <http://dx.doi.org/10.1177/1050651902250946>
- Mayordomo-Ortiz, C., & Javadinejad, A. (2025). Enhancing the Speaking Skills of Secondary School Students Through Simulation and Roleplay. *Simulation & Gaming*, 56(5), 499-522. <https://doi.org/10.1177/10468781251345322>
- Mezentseva, M., Fedorova, N., Zimina, V., Kapitonova, N., & Shvedova, K. (2022, May). Teaching Foreign Language Speech Etiquette to Students of Technical Specialties for Agro-Industry. In *International Scientific Conference on Agricultural Machinery Industry "Interagromash"* (pp. 1159-1170). Cham: Springer International Publishing.
- Muganga, L., & Ssenkusu, P. (2019). Teacher-centered vs. student-centered: An examination of student teachers' perceptions about pedagogical practices at Uganda's Makerere University. *Cultural and Pedagogical Inquiry*, 11(2), 16-40. <http://dx.doi.org/10.18733/cpi29481>
- Muslim, I. (2018). Improving English Speaking Skill Through "Role-Play" Technique. *Journal of English Language and Literature (JELL)*. <https://doi.org/10.37110/jell.v2i02.29>
- Mvududu, N., & Thiel-Burgess, J. (2012). Constructivism in practice: The case for English language learners. *International Journal of Education*, 4(3), 108-118. <http://dx.doi.org/10.5296/ije.v4i3.2223>

- Osgerby, J. (2013). Students' perceptions of the introduction of a blended learning environment: An exploratory case study. *Accounting Education*, 22(1), 85-99. <http://dx.doi.org/10.1080/09639284.2012.729341>
- Perwitasari, I. A. (2025). *The Use Of Role-play to Teach Speaking Skills During the Pandemic Covid-19* (Doctoral dissertation, Universitas Islam Indonesia).
- Pinatih, I. (2021). Improving Students' Speaking Skill through Role-Play Technique in 21st Century. *Journal of Educational Study*, 1, 95–100. <https://doi.org/10.36663/joes.v1i2.159>
- PremilaSwamy, D. (2021). Strategies To Improve English Communication For Enhancing Employability For Engineering Graduates. *Towards Excellence*, 13(1). <https://doi.org/10.37867/te130107>
- Roshid, M. M., & Kankaanranta, A. (2023). English Communication Skills in International Business: Industry Expectations Versus University Preparation. *Business and Professional Communication Quarterly*, 88, 100–125. <https://doi.org/10.1177/23294906231184814>
- Sarifudin, S., & Setyawan, W. H. (2025). The effect of using role-play method in improving speaking skills of basic level students at central course. *Prima Magistra: Jurnal Ilmiah Kependidikan*, 6(1), 29-35.
- Tandipayuk, Y. T., Amin, F. H., Abd Al-Lateef, G. T., & Vargheese, K. J. (2023). Exploring the fluency and comprehensibility of a role-play-based speaking in a tourism are university. *International Journal of Humanities and Innovation (IJHI)*, 6(2), 42-48. <https://doi.org/10.33750/ijhi.v6i2.180>
- Tang, K. H. D. (2023). Student-centered approach in teaching and learning: What does it really mean?. *Acta Pedagogica Asiana*, 2(2), 72-83. <https://doi.org/10.53623/apga.v2i2.218>
- Tayag, E. S., Tiamzon, J. S., Bagang, A. N. D., Manalili, J. C. N., Frasco, B. D., Sarinas, P., ... Dominado, N. L. (2024). Learning Motivation and Self-Efficacy in English Among Seventh Graders. *International Journal of Multidisciplinary: Applied Business and Education Research*. <https://doi.org/10.11594/ijmaber.05.05.05>
- Togimin, N., & Jaafar, H. (2020). *Role Play Activities: An Innovative Approach to Teaching Speaking Skills in an ESL Classroom*. 7, 19–36. <https://doi.org/10.11113/lspi.v7.16310>
- Warschauer, M. (2000). The changing global economy and the future of English teaching. *TESOL quarterly*, 34(3), 511-535. <http://dx.doi.org/10.2307/3587741>
- Yan, W., Lowell, V., & Yang, L. (2024). Developing English language learners' speaking skills through applying a situated learning approach in VR-enhanced learning experiences. *Virtual Real.*, 28, 167. <https://doi.org/10.1007/s10055-024-01061-5>
- Yang, Q. (2024). The Effectiveness of a Role-Play Activity in Practicing EFL Learner's Communicative Skills. *Journal of Education and Educational Research*. <https://doi.org/10.54097/9ym02t34>
- Yen, Y. C., Hou, H. T., & Chang, K. E. (2015). Applying role-playing strategy to enhance learners' writing and speaking skills in EFL courses using Facebook and Skype as learning tools: A case study in Taiwan. *Computer Assisted Language Learning*, 28(5), 383-406. <http://dx.doi.org/10.1080/09588221.2013.839568>