

IPA-Based Simulation in Vocational Business English: Interactive Toolkit Development

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Abstract:

Vocational students are expected to develop communication skills that meet workplace demands; however, Business English instruction often remains focused on theoretical content and routine language exercises. This condition limits opportunities for authentic communication practice and affects students' confidence and performance in professional settings. This study developed and evaluated a simulation-based learning toolkit using a Research and Development approach with ADDIE framework. The toolkit was designed to support three communication modes through structured learning activities and was implemented with 30 vocational students enrolled in a Business English course. Data were collected through performance-based pretests and posttests, classroom observations, and student reflections. Quantitative data were analyzed using paired-sample t-tests, while qualitative findings were used to support the interpretation of learning outcomes. The findings revealed significant improvements in students' communication performance after the intervention. Students demonstrated better comprehension of workplace texts, more active participation in discussions, and greater confidence in presenting ideas during business meeting simulations. Statistical analysis showed significant differences between pretest and posttest scores across all communication modes ($p < 0.001$), accompanied by large effect sizes. Students also reported positive perceptions of the learning experience and the relevance of the activities to professional communication contexts. The integration of simulation activities, performance-based assessment, and systematic instructional design effectively enhanced communication competence among vocational learners and strengthened the connection between classroom learning and workplace communication practices.

Keywords: Assessment; Communication Competence; Instructional Design; Simulation; Vocational Education.

Introduction

In the era of globalization, vocational education is expected to prepare students not only with technical competencies but also with communication skills that meet workplace demands. English plays an important role in professional communication, particularly in administrative, managerial, and entrepreneurial settings where interaction often occurs across international and multicultural environments. Consequently, Business English has become a fundamental component of vocational curricula. However, Business English instruction in many vocational institutions still focuses on theoretical knowledge and routine language exercises rather than authentic workplace communication practices (Basturkmen, 2010; Hyland, 2007; McKay, 2018). As a result, students frequently encounter difficulties when applying classroom knowledge to real business situations.

This issue is evident in vocational higher education contexts in Indonesia. Preliminary observations at Akademi Komunitas Negeri Putra Sang Fajar Blitar indicated that Business English instruction relied heavily on textbooks and routine conversation activities. Students had limited opportunities to participate in realistic business communication tasks such as meetings, discussions, and presentations. Consequently, many students demonstrated low confidence and limited participation in formal communication settings. Similar findings have been reported by previous studies, which suggest that traditional Business English instruction often fails to bridge the gap between classroom learning and workplace communication demands (Basturkmen, 2010; Plakans & Gebril, 2015; Richards, 2017). Furthermore, Jiang & Qu (2024) found that vocational students frequently possess business-related knowledge but lack the communicative competence required in professional environments.

To address this challenge, educators have increasingly adopted performance-based approaches that emphasize authentic communication. One of the most widely recognized frameworks is Integrated Performance Assessment (IPA), which integrates interpretive, interpersonal, and presentational communication modes into meaningful tasks that reflect real-world language use (Adair-Hauck et al., 2013; Adair-Hauck & Troyan, 2013). Unlike conventional assessments that primarily measure language knowledge, IPA focuses on learners' ability to communicate effectively in authentic contexts. Previous research has demonstrated that IPA can enhance communicative competence while promoting alignment between instructional objectives, learning activities, and assessment practices (Troyan, 2016; Troyan et al., 2023). Another promising approach is simulation-based learning. Simulation enables students to engage in realistic workplace scenarios and practice communication skills within meaningful professional contexts. Studies have shown that simulation activities increase student engagement, contextual relevance, and communication performance in Business English and ESP learning environments (Nurrahma et al., 2023; Xie, 2023). Through activities such as business meetings, discussions, and presentations, students can develop communication skills that are directly related to workplace requirements.

Despite growing interest in authentic assessment and simulation-based learning, previous studies reveal several conceptual and pedagogical limitations. Studies on Integrated Performance Assessment (IPA) consistently demonstrate its effectiveness in assessing communicative competence and aligning assessment with learning objectives (Tambunan & Kurniawan, 2024; Troyan et al., 2023). However, these studies primarily position IPA as an assessment framework rather than as an instructional approach capable of guiding the entire learning process. Conversely, simulation-based learning studies emphasize authentic workplace experiences and increased student engagement (Nurrahma et al., 2023; Xie, 2023), yet they generally lack a structured performance assessment model that systematically captures students' communicative development. Consequently, instruction and assessment remain conceptually separated, making it difficult to establish a coherent relationship between learning activities, assessment procedures, and expected communication outcomes. Furthermore, existing studies rarely develop practical instructional resources that operationalize both approaches simultaneously within vocational Business English classrooms. This indicates that the pedagogical potential of integrating IPA with simulation-based learning remains insufficiently explored, particularly in vocational contexts where authentic workplace communication is a primary learning objective.

To address these limitations, the present study integrates IPA and simulation through the ADDIE instructional design framework by developing an interactive Business English toolkit consisting of Business Flashcards, a Meeting Agenda Poster, and a Business Etiquette Guide. Unlike previous studies that either emphasized authentic assessment or simulation-based instruction independently, this study operationalizes IPA as both an instructional and assessment framework embedded within workplace simulations. The

novelty of this research therefore lies not only in combining instructional materials, learning activities, and assessment procedures within a single toolkit but also in demonstrating how these components function cohesively to support authentic Business English communication in vocational education. Accordingly, this study aims to develop and evaluate the effectiveness of the IPA-based simulation toolkit in improving vocational students' communication performance. The findings are expected to contribute to ESP and vocational education by offering a more integrated instructional model that bridges classroom learning with workplace communication demands.

Literature Review

Integrated Performance Assessment in Business English Learning

Integrated Performance Assessment (IPA) has been widely recognized as an assessment framework that reflects authentic language use by integrating interpretive, interpersonal, and presentational communication into meaningful performance tasks (Adair-Hauck et al., 2013; Troyan et al., 2023). Rather than measuring isolated language knowledge, IPA encourages students to demonstrate how they use language to accomplish real communicative purposes. Previous studies have reported that IPA improves communicative competence because learning objectives, instructional activities, and assessment are aligned within authentic contexts (Troyan, 2016). Research in vocational education has also shown promising results. Tambunan and Kurniawan (2024) found that implementing IPA in vocational English classes encouraged students to participate more actively and improved their communication performance. However, the study mainly viewed IPA as an assessment framework. The instructional materials and classroom activities were not specifically designed to support the three communication modes. As a result, although assessment became more authentic, the learning process itself was still dependent on existing teaching materials. This suggests that the instructional potential of IPA has not yet been fully explored, particularly in Business English learning.

Simulation-Based Learning for Workplace Communication

Simulation has become an increasingly popular approach in Business English because it allows students to experience communication situations that resemble the workplace. Through activities such as meetings, negotiations, discussions, and presentations, learners can practice using English in contexts that are relevant to their future careers. Previous studies consistently reported positive outcomes. Xie (2023) demonstrated that simulation activities increased student engagement and helped learners understand workplace communication more effectively. Likewise, (Nurrahma et al., 2023) showed that project-based simulations improved students' speaking skills and confidence during Business English learning. Despite these positive findings, most simulation studies place greater emphasis on learning activities than on assessment. Student performance is often evaluated through general classroom observation or speaking scores without using a structured assessment framework that reflects different dimensions of communicative competence. Consequently, although simulation creates authentic learning experiences, it is still difficult to determine how individual communication skills develop systematically throughout the learning process.

Technology and Instructional Innovation in Business English

Recent studies have also explored technology-enhanced Business English learning. Cao & Phongsatha (2025), for example, reported that AI-supported blended learning improved students' engagement and language achievement. Similarly, Jiang & Qu (2024) found that vocational students generally possessed adequate business knowledge but continued to experience difficulties when communicating in professional situations. These findings indicate that improving Business English competence requires more than digital

learning environments; students also need opportunities to practice authentic workplace communication through carefully designed instructional activities. Although technology offers various opportunities to enrich language learning, many existing studies focus primarily on digital platforms rather than on how instructional design, authentic learning activities, and performance assessment can be integrated into a coherent learning model. As a result, technology often functions as a delivery tool instead of supporting the overall development of communicative competence.

Those previous studies indicate that IPA, simulation-based learning, and technology-enhanced instruction each contribute positively to Business English education. However, these three approaches have largely developed independently. Studies on IPA mainly focus on assessment, while simulation studies emphasize authentic learning experiences without systematically integrating performance assessment. Meanwhile, technology-oriented research often concentrates on digital innovation rather than on the pedagogical relationship between instruction, assessment, and workplace communication. Consequently, limited attention has been given to developing an instructional model that brings these elements together within a single learning framework. More specifically, there is still a lack of practical instructional resources that integrate learning materials, simulation activities, and IPA-based assessment to support vocational Business English learning. Addressing this gap is important because vocational students require learning experiences that closely reflect workplace communication while also providing clear evidence of their communicative development. Therefore, this study develops an IPA-based simulation toolkit consisting of Business Flashcards, a Meeting Agenda Poster, and a Business Etiquette Guide. The toolkit is designed not only to support authentic learning activities but also to integrate instruction and performance assessment within a single framework. In doing so, this study contributes an instructional model that strengthens the connection between classroom learning and workplace communication in vocational Business English education.

Method

Conceptual Framework

This study is grounded in the assumption that authentic learning experiences improve students' communicative competence when instructional materials, learning activities, and assessment are systematically aligned. The conceptual framework integrates the Integrated Performance Assessment (IPA) framework with the ADDIE instructional design model to develop an interactive Business English learning toolkit. Within this framework, the IPA-based simulation toolkit serves as the instructional intervention. The toolkit consists of three complementary learning resources: Business Flashcards, a Meeting Agenda Poster, and a Business Etiquette Guide. These materials are designed to facilitate learning activities corresponding to the three communication modes of the IPA framework: interpretive, interpersonal, and presentational communication. Through repeated participation in authentic business simulations, students are expected to develop stronger workplace communication skills, which are reflected in improved Business English communication performance.

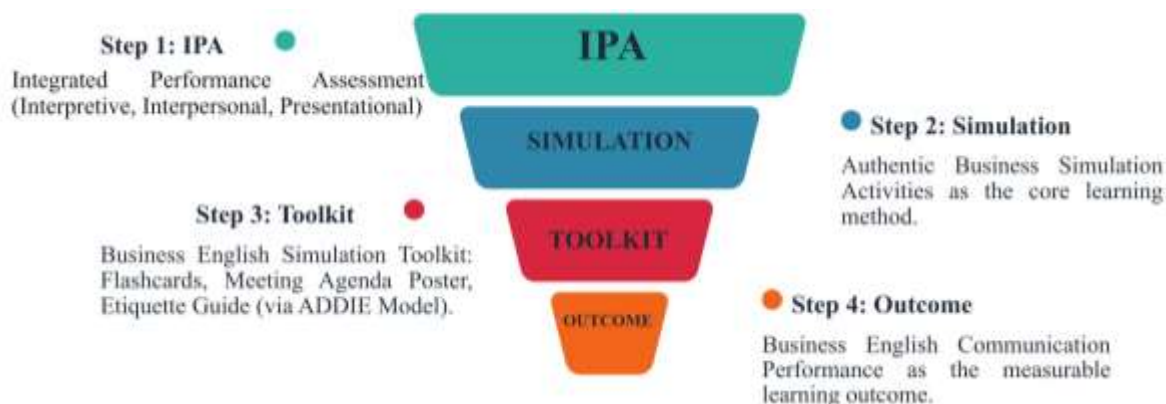


Figure 1. Conceptual Framework

Research Design

This study employed a Research and Development (R&D) approach using the ADDIE instructional design model, which consists of five sequential phases: Analysis, Design, Development, Implementation, and Evaluation. The ADDIE model was selected because it provides a systematic framework for designing, developing, implementing, and evaluating instructional products aligned with learners' needs and instructional objectives (Ellis et al., 2019). The study aimed to develop and evaluate an Integrated Performance Assessment based simulation toolkit for Business English learning. The toolkit consisted of three instructional materials: Business Flashcards, a Meeting Agenda Poster, and a Business Etiquette Guide. The overall research procedure is presented in Figure 1.



Figure 1. Research Procedure for Developing the IPA-Based Simulation Toolkit Using the ADDIE Model

As shown in Figure 1, the study began with a needs analysis, followed by the design and development of the instructional toolkit. The developed product was then implemented in a Business English course and evaluated using quantitative and qualitative approaches.

Time and Place of Research

The research was conducted from February to June 2025 at Akademi Komunitas Negeri Putra Sang Fajar Blitar, East Java, Indonesia. The implementation phase took place during the regular Business English course in the Digital Office Operations Study Program.

Population and Sample

The population of this study consisted of all students enrolled in the Business English course at the Digital Office Operations Study Program. The sample comprised 30 second-year students who were selected using

purposive sampling. This sampling technique was chosen because the participants were directly involved in the implementation and evaluation of the IPA-based simulation toolkit. Furthermore, all participants had completed prerequisite English courses and possessed sufficient basic English proficiency to participate in workplace communication simulations. To evaluate the effectiveness of the developed toolkit, the study employed a one-group pretest-posttest design. Students' communication performance was measured before and after the instructional intervention.

Research Instrument

Several instruments were employed to collect data.

1) Performance-Based Assessment Tests

Pretests and posttests were developed based on the Integrated Performance Assessment (IPA) framework proposed by Adair-Hauck et al. (2013). The assessments measured students' performance across three communication modes:

- a) Interpretive Communication
- b) Interpersonal Communication
- c) Presentational Communication

2) Observation Sheets

Observation sheets were used to document students' participation, interaction patterns, engagement, and communication behaviors during simulation activities.

3) Student Reflection Forms

Reflection forms were administered at the end of the intervention to gather students' perceptions regarding the usefulness, authenticity, and practicality of the developed toolkit.

4) Expert Validation Sheets

Prior to implementation, the developed toolkit was reviewed by three experts in English Language Teaching and vocational education. The validation focused on four aspects: content relevance, instructional design, practicality, and alignment with the Integrated Performance Assessment (IPA) framework. The experts examined whether the learning objectives, instructional materials, simulation activities, and assessment tasks were appropriate for vocational Business English learning. They also provided qualitative comments and suggestions for improvement. The revision process was conducted iteratively until the experts agreed that the toolkit was suitable for classroom implementation.

Data Collection

Data collection followed the five phases of the ADDIE model.

a. Analysis Phase

Classroom observations and informal interviews with lecturers were conducted to identify students' learning needs, instructional challenges, and existing teaching practices. The findings indicated that students had limited opportunities to practice authentic workplace communication.

b. Design Phase

Based on the needs analysis, the IPA-based simulation toolkit was designed. Learning objectives, communication tasks, instructional materials, and assessment criteria were aligned with the interpretive, interpersonal, and presentational communication modes.

c. Development Phase

The instructional materials were developed and validated by experts. Revisions were made based on the validators' recommendations to improve the quality and usability of the toolkit.

d. Implementation Phase

Students first completed a pretest to determine their initial communication performance. Subsequently, the toolkit was implemented over six weeks through simulation-based Business English learning activities, including business meetings, discussions, role-plays, and presentations. After the intervention, students completed a posttest using the same assessment framework.

e. Evaluation Phase

Quantitative and qualitative data were collected and analyzed to determine the effectiveness of the developed toolkit and identify areas for further improvement.

Data Analysis

Quantitative and qualitative techniques were employed to analyze the collected data.

a. Quantitative Analysis

Data analysis involved calculating means and standard deviations (SD) for pre-test and post-test scores. The paired-sample t-test was applied to test the null hypothesis that there is no difference between the two related means. The t-value was computed using the formula:

$$t = \frac{D}{S_D / \sqrt{\{n\}}}$$

Where D represents the mean difference between posttest and pretest scores, S_D denotes the standard deviation of the differences, and nnn is the number of participants. A p-value less than 0.05 was considered statistically significant, indicating a meaningful improvement in students' performance. To evaluate the practical significance of the intervention, Cohen's d was calculated as an effect size measure:

$$d = \frac{X_{post} - X_{pre}}{SD_{pooled}}$$

With

$$SD_{pooled} = \frac{\sqrt{SD^2_{pre} + SD^2_{post}}}{2}$$

The use of the ADDIE model ensured a systematic development process, from needs analysis through to evaluation, and provided a rigorous framework for conducting valid and reliable data analysis in this study.

Qualitative Analysis

Qualitative data obtained from classroom observations and student reflection forms were analyzed descriptively through data reduction, categorization, and interpretation. The qualitative findings were used to support and explain the quantitative results, providing a more comprehensive understanding of students' learning experiences during the implementation of the IPA-based simulation toolkit. Through the integration of quantitative and qualitative analyses, the study evaluated both the instructional effectiveness and practical relevance of the developed toolkit in improving vocational students' Business English communication skills.

Result

Prior to classroom implementation, the IPA-based simulation toolkit underwent an expert review to ensure that the instructional materials were appropriate for use in the Business English classroom. Three experts in English Language Teaching and vocational education evaluated the toolkit based on four aspects: content relevance, instructional design, practicality, and alignment with the Integrated Performance Assessment (IPA) framework. Rather than serving as a statistical validation process, the expert review was intended to assess the instructional quality and classroom feasibility of the developed materials. Overall, the experts agreed that the toolkit was suitable for implementation after several minor revisions. Their recommendations primarily focused on improving the clarity of several task instructions, refining the visual organization of the Meeting Agenda Poster, enhancing the design of selected Business Flashcards, and providing clearer examples in the Business Etiquette Guide. These revisions were incorporated into the final version of the toolkit before it was implemented in the Business English course. The expert review therefore strengthened the instructional quality of the toolkit and ensured that the learning materials were aligned with the intended communication objectives before being introduced to students.

Following the expert review and revision process, the effectiveness of the toolkit was evaluated through classroom implementation involving 30 vocational students enrolled in the Business English course at Akademi Komunitas Negeri Putra Sang Fajar Blitar (AKB). Students' communication performance was measured using pre-tests and post-tests based on the three communication modes of the Integrated Performance Assessment (IPA): interpretive, interpersonal, and presentational. A paired-sample *t*-test was conducted to examine whether there were significant differences in students' performance before and after the instructional intervention. The results indicate that students demonstrated consistent improvement across all three communication modes after participating in the simulation-based learning activities. Statistical analysis revealed significant differences between pre-test and post-test scores in every communication mode ($p < 0.001$), accompanied by large effect sizes. These findings suggest that the IPA-based simulation toolkit effectively supported students in developing Business English communication skills through authentic workplace learning experiences. The detailed statistical results are presented in Table 1:

Tabel 1. Pretest–Posttest Comparison of Students' Performance in Interpretive, Interpersonal, and Presentational Communication

IPA Mode	Pre-test Mean (SD)	Post-test Mean (SD)	t-value	p-value	Cohen's d
Interpretive	63.10 (6.80)	77.20 (5.90)	8.32	<0.001	2.21
Interpersonal	66.50 (7.10)	79.30 (6.45)	7.89	<0.001	1.91
Presentational	66.00 (8.20)	79.80 (6.90)	8.04	<0.001	1.87

The statistical results in the table indicate a significant improvement in students' performance across all three IPA modes (Interpretive, Interpersonal, and Presentational) after the use of the interactive Business English toolkit. In the Interpretive mode, students' average score increased from 63.10 (SD = 6.80) in the pre-test to 77.20 (SD = 5.90) in the post-test. This gain of 14.1 points is statistically significant with a t-value of 8.32, a p-value of < 0.001 , and a very large effect size (Cohen's $d = 2.21$). The results show a clear and consistent improvement in students' Business English communication skills across all three Integrated Performance Assessment (IPA) modes after the use of the interactive toolkit. These improvements suggest that the toolkit supported students not only in learning language forms but also in using English more effectively in realistic business situations. The strongest improvement appeared in the interpretive mode, indicating that structured learning materials helped students better understand business-related texts and spoken messages. Improvements in the interpersonal mode indicate that the simulation-based activities encouraged students to participate more actively in discussions and business meeting simulations. The clear structure provided by the toolkit helped reduce hesitation and supported smoother interaction among students. In the presentational mode, the results suggest that guidance on business communication and professional etiquette enabled students to organize and present ideas more clearly and confidently in formal contexts. Overall, the pattern of improvement across the three IPA modes shows that the toolkit supported balanced development of students' receptive, interactive, and productive communication skills. Rather than focusing on one specific skill, the IPA-based simulation toolkit helped students practice integrated communication that reflects real business situations. These findings highlight the value of using performance-based assessment within simulation activities to strengthen Business English learning in vocational education.

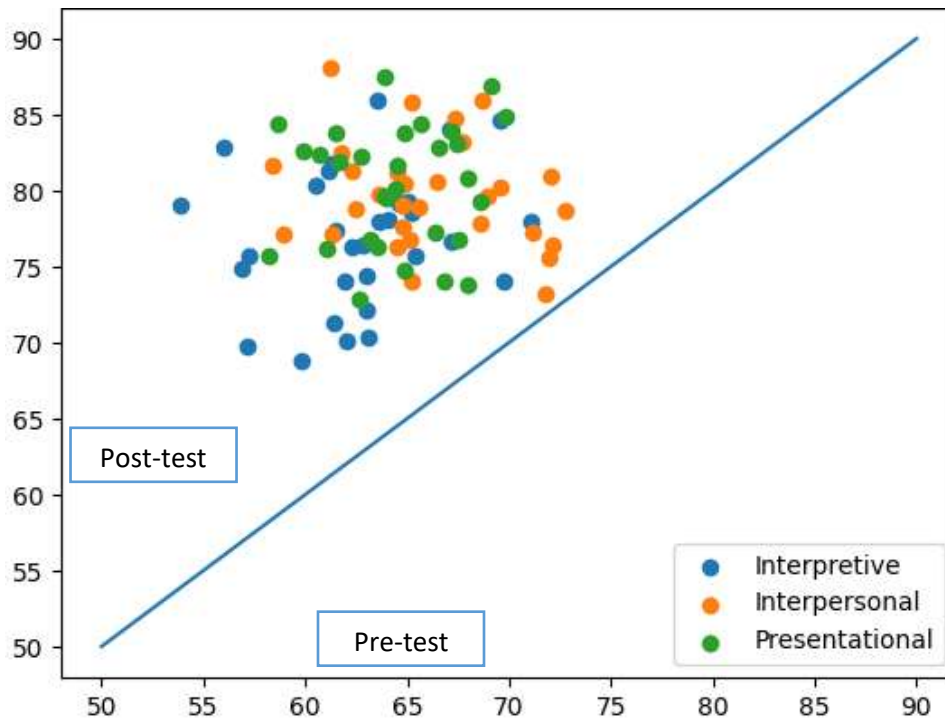


Figure 2. Distribution of Individual Learning Gains Across IPA Modes Based on Pre-test and Post-test Scores

Figure 1 presents a scatter plot showing individual students' pre-test and post-test scores across the three Integrated Performance Assessment (IPA) modes: Interpretive, Interpersonal, and Presentational. Each point represents one student ($n = 30$), allowing the visualization to display individual score changes rather than only average results. The diagonal reference line represents equal pre-test and post-test scores; points above this line indicate score improvement after the implementation of the interactive Business English toolkit. The scatter plot shows that most data points across all IPA modes are located above the diagonal line, indicating that the majority of students experienced improvement. This pattern suggests that the observed learning gains were not limited to a small group of students but occurred consistently across participants. In the Interpretive mode, the distribution of points reflects improved understanding of business-related texts. The Interpersonal mode shows clear upward movement, indicating better participation and interaction in business communication activities. Similarly, the Presentational mode demonstrates individual improvements in delivering structured business presentations. Overall, the scatter plot supports the statistical findings by visually confirming that learning improvements were experienced by individual students across all IPA modes. This visualization strengthens the conclusion that the IPA-aligned interactive toolkit effectively enhanced students' Business English communication skills.

Discussion

This study aimed to address a significant gap in the Business English class at AKB, where instruction previously focused mainly on theoretical content and limited conversational practice, with minimal use of interactive or authentic learning tools. The research investigated whether an instructional toolkit designed based on the Integrated Performance Assessment (IPA) framework and developed using the ADDIE instructional design model could enhance vocational students' Business English communication skills. To avoid ambiguity, it is important to clarify that the components of the toolkit, Business Flashcards, Meeting Agenda Poster, and Business Etiquette Guide, served exclusively as instructional intervention materials, not as assessment instruments. These tools were used during classroom instruction to support learning activities aligned with the three IPA modes. Student performance was evaluated separately through structured pre-tests and post-tests, which functioned as the primary instruments for data collection and quantitative analysis.

Discussion of Finding

The results showed significant improvement in students' performance across all three IPA modes: interpretive, interpersonal, and presentational. These improvements were supported by carefully designed instructional materials developed through the five phases of the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). In the Analysis phase, the researchers identified students' needs and found a lack of authentic, performance-based instructional resources to support business communication. During the Design phase, the instructional materials were systematically aligned with the IPA framework. The Business Flashcards were designed to support the Interpretative mode by helping students understand and retain business-related vocabulary and expressions. The Meeting Agenda Poster functioned as a learning scaffold for the Interpersonal mode by guiding students through the structure and flow of business meetings and encouraging meaningful interaction. The Business Etiquette Guide supported the Presentational mode by providing guidance on appropriate norms and cultural etiquette for professional business presentations. The Development phase involved producing both digital and physical versions of the instructional materials. The Implementation phase consisted of a six-week classroom intervention in which students engaged with the toolkit through simulations, guided discussions, and presentation activities structured around the three IPA modes. The Evaluation phase employed pre-tests and post-tests to

quantitatively measure student improvement, with the results showing significant gains supported by statistical analysis.

Each IPA mode contributed differently to student learning. The Interpretive mode focused on developing receptive skills such as reading and listening comprehension through repeated exposure to business language via flashcards, which aligns with Nation (2022) research on vocabulary acquisition. The Interpersonal mode fostered productive and interactive communication skills, as the Meeting Agenda Poster helped reduce cognitive load by providing clear visual cues, supporting (Sweller, 1994) cognitive load theory. In the Presentational mode, the Business Etiquette Guide enhanced students' ability to organize and deliver formal presentations while respecting cross-cultural business norms, consistent with (Naoko Taguchi, 2011) concept of pragmatic competence.

Recent studies further support the relevance of integrating IPA and simulation into ESP learning. (Tambunan & Kurniawan, 2024b) explored the use of IPA in vocational English contexts but did not incorporate interactive or technological learning tools. (Qing Xie, 2023) emphasized the value of simulation in Business English for improving contextual relevance and student engagement, while (Nurrahma et al., 2023b) implemented project-based simulation for speaking skills without explicitly aligning the approach with IPA. From a technological perspective, (Liping et al., 2023) highlighted challenges in formative assessment practices in Chinese vocational schools, including limited teacher training and low student motivation. In contrast, (Yaghoubi et al., 2025) demonstrated that combining performance-based assessment with adaptive digital tools could enhance students' academic resilience and motivation.

By clearly distinguishing instructional intervention materials from assessment instruments, this study addresses methodological limitations noted in previous research. The integration of IPA within an ADDIE-based instructional design, supported by an interactive toolkit, offers a structured yet flexible approach to ESP instruction that promotes authentic performance and sustained student engagement. Overall, this study demonstrates that the use of IPA-aligned instructional tools, rather than assessment-only applications of IPA, can significantly improve vocational students' Business English communication skills and provides a replicable model for other vocational institutions.

Discussion of Limitation

Despite the positive findings, this study has several methodological limitations that should be acknowledged. First, the research employed a one-group pretest–posttest design without a control group. As a result, improvements in students' Business English performance cannot be attributed solely to the instructional intervention with complete certainty, as other factors such as testing effects, maturation, or increased familiarity with the tasks may have influenced the results. This limitation affects the internal validity of the study and restricts causal interpretation.

Second, the study was conducted within a single vocational institution with a relatively small sample size. While the findings provide valuable insights into the implementation of IPA-driven simulation in a vocational Business English context, the results may not be readily generalized to other institutions, disciplines, or educational settings with different learner characteristics.

Third, the duration of the intervention was limited to six weeks, focusing primarily on short-term learning outcomes measured through pre-tests and post-tests. Consequently, this study does not capture the long-term impact of the instructional toolkit on students' communicative competence or workplace readiness. Future research is therefore recommended to employ quasi-experimental or experimental designs with control groups, involve larger and more diverse participant samples, and examine the long-term effects of

IPA-based simulation. In addition to the instructional intervention, several alternative factors may also have contributed to the observed improvement in students' performance. First, repeated exposure to similar assessment tasks may have resulted in a testing effect, enabling students to perform better simply because they became more familiar with the assessment format. Second, students may have experienced natural academic development and increased confidence over the six-week instructional period (maturation effect). Third, learning experiences outside the intervention, such as independent study, peer discussions, or exposure to English in other courses, may also have influenced their communication performance. Furthermore, increased motivation resulting from participation in a research project (Hawthorne effect) cannot be completely ruled out. Therefore, although the findings indicate substantial improvement following the implementation of the IPA-based simulation toolkit, the contribution of these alternative factors should also be considered when interpreting the results.

Conclusion

This study concludes that the IPA-based simulation toolkit developed through the ADDIE instructional design model was effective in improving vocational students' Business English communication performance across the interpretive, interpersonal, and presentational communication modes. The significant improvement observed between pretest and post-test scores, supported by large effect sizes, indicates that the integration of simulation-based learning with the Integrated Performance Assessment (IPA) framework can facilitate authentic workplace communication practice and enhance students' communicative competence. The findings answer the research question by demonstrating that a systematically designed instructional toolkit consisting of Business Flashcards, a Meeting Agenda Poster, and a Business Etiquette Guide can support meaningful Business English learning and promote active student engagement. The main contribution of this study lies in the development of an instructional model that integrates learning materials, simulation activities, and performance-based assessment within a single framework, addressing the gap in previous studies that treated instruction and assessment separately. Therefore, this study provides both theoretical and practical contributions to English for Specific Purposes (ESP) and vocational education by offering a replicable approach for aligning Business English instruction with workplace communication demands and performance-oriented learning outcomes.

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References

- Adair-Hauck, B., Glisan, E. W., & Troyan, F. J. (2013). Implementing Integrated Performance Assessment. *American Council on the Teaching of Foreign Languages (ACTFL)*.
- Adair-Hauck, B., & Troyan, F. J. (2013). A Descriptive and Co-Constructive Approach to Integrated Performance Assessment Feedback. *Foreign Language Annals*, 46(1), 23–44. <https://doi.org/10.1111/flan.12017>
- Basturkmen, H. (2010). *Developing Courses in English for Specific Purposes*. Palgrave Macmillan UK. <https://doi.org/10.1057/9780230290518>

- Cao, S., & Phongsatha, S. (2025). An Empirical Study of the AI-Driven Platform in Blended Learning for Business English Performance and Student Engagement. *Language Testing in Asia*, 15(1). <https://doi.org/10.1186/s40468-025-00376-7>
- Ellis, R., Skehan, P., Li, S., Shintani, N., & Lambert, C. (2019). *Task-Based Language Teaching*. Cambridge University Press. <https://doi.org/10.1017/9781108643689>
- Hyland, K. (2007). *English for Academic Purposes: An Advanced Resource Book*. Routledge.
- Jiang, L., & Qu, Y. (2024). Assessing core competencies of business English students in Chinese higher vocational colleges. *Scientific Reports*, 14(1), 29328. <https://doi.org/10.1038/s41598-024-78898-y>
- Liping, Q., Yiping, X., & Ahmad, N. (2023). An Analysis of Implementation Challenges for English for Specific Purposes (ESP) Formative Assessment Via Blended Learning Mode at Chinese Vocational Polytechnics. *Journal of Digital Education, Communication, and Arts*, 6(2), 64–76. <https://doi.org/10.30871/deca.v6i02.6813>
- McKay, S. L. (2018). English As an International Language: What It Is and What It Means For Pedagogy. *RELC Journal*, 49(1), 9–23. <https://doi.org/10.1177/0033688217738817>
- Naoko Taguchi. (2011). *Teaching Pragmatics: Trends and Issues*. Cambridge University Press. <https://doi.org/https://doi.org/10.1017/S0267190511000018>
- Nation, I. S. P. (2022). *Learning Vocabulary in Another Language*. Cambridge University Press.
- Nurrahma, A. I., Saifuddin, & Nafi'yah, S. (2023a). Using Simulation as Project-Based Learning to Improve Students' Speaking Skill on Business English Course. *Journal of Scientific Research, Education, and Technology (JSRET)*, 2(3), 1133–1139. <https://doi.org/10.58526/jsret.v2i3.209>
- Nurrahma, A. I., Saifuddin, & Nafi'yah, S. (2023b). Using Simulation as Project-Based Learning to Improve Students' Speaking Skill on Business English Course. *JSRET (Journal of Scientific, Research, Education, and Technology)*, 2(3), 1133–1139. <https://doi.org/10.58526/jsret.v2i3.209>
- Plakans, L., & Gebril, A. (2015). *Assessment Myths: Applying Second Language Research to Classroom Teaching*. University of Michigan Press/ELT. <https://doi.org/10.3998/mpub.5056216>
- Qing Xie. (2023). Using Simulation in Business English Courses for China's English Majors. *Sage Journal*, 13(4), 1–16. <https://doi.org/https://doi.org/10.1177/21582440231215987>
- Richards, J. C. (2017). Teaching English through English: Proficiency, Pedagogy and Performance. *RELC Journal*, 48(1), 7–30. <https://doi.org/10.1177/0033688217690059>
- Sweller, J. (1994). Cognitive Load Theory, Learning Difficulty, and Instructional Design. *Learning and Instruction*, 4(4), 295–312. [https://doi.org/10.1016/0959-4752\(94\)90003-5](https://doi.org/10.1016/0959-4752(94)90003-5)
- Tambunan, R. W., & Kurniawan, H. (2024a). An Implementation of Integrated Performance Assessment Model in Vocational English for Communication Learning. *JOALL (Journal of Applied Linguistics and Literature)*, 9(1), 167–181. <https://doi.org/10.33369/joall.v9i1.30876>
- Tambunan, R. W., & Kurniawan, H. (2024b). An implementation of integrated performance assessment model in vocational English for communication learning. *JOALL (Journal of Applied Linguistics and Literature)*, 9(1), 167–180. <https://doi.org/https://doi.org/10.33369/joall.v9i1.30876>

- Troyan, F. J. (2016). Assessing What Matters within Content-Based Foreign Language Teaching through Integrated Performance Assessment. In *Content-Based Foreign Language Teaching* (1st Edition, pp. 235–254). Routledge.
- Troyan, F. J., Adair-Hauck, B., & Glisan, E. W. (2023). *The Integrated Performance Assessment: Twenty Years and Counting*.
- Xie, Q. (2023). Using Simulation in Business English Courses for China's English Majors. *Sage Open*, 13(4). <https://doi.org/10.1177/21582440231215987>
- Yaghoubi, M., Gilakjani, A. P., & Abbasian, G.-R. (2025). The Effect of Performance-Based Assessment on Academic Resilience, Motivation, and Teacher Support in Virtual Versus Non-Virtual Classes. *Language Testing in Asia*, 15(47), 1–32. <https://doi.org/https://doi.org/10.1186/s40468-025-00385-6>