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Elevating students' presentation skills with Indonesian local wisdom in virtual teaching mode

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ABSTRACT

This study examines the impact of synchronous real and virtual teaching modes on students' abilities in English for Specific Purposes (ESP) for presentation. It uses an experimental research design, with the first semester at Bina Nusantara University, Indonesia, as the participants. There were 30 students in the experimental group and 30 in the control group attending the ESP business presentation course. The students' presentation skills of structure, delivery, and gesture were the skills tested by integrating specific topics of local Indonesian knowledge: Pancasila, local tourist destinations, and free topic. The Wilcoxon signed-rank test was used for data analysis taken from the pre-and post-test scores from both groups. The results demonstrated that both modes of teaching had a positive effect on the overall presentation skills of both groups. However, there were variations in the improvement of specific presentation skills across different topics. Comparing both modes of teaching, the synchronous virtual mode of teaching has shown promise in developing students' presentation abilities, but attention should be given to addressing limitations and optimizing teaching strategies for comprehensive skill development. This study contributes to the understanding of the impact of synchronous real and virtual modes of teaching on students' presentation skills in the context of ESP and has practical implications for educators and course designers involved in ESP instruction. Incorporating a synchronous mode of teaching can be a valuable approach to developing students' presentation skills when combined with the integration of local Indonesian knowledge and diverse topics.

Contribution/Originality: In this study, we contribute significantly to ESP teaching by introducing a novel framework for synchronous virtual modes of teaching. We synthesize established theories and methodologies by incorporating local Indonesian knowledge content. This provides fresh insights for the development of students' presentation skills that represent a substantial advancement in ESP presentation teaching.

1. INTRODUCTION

In this era of globalization, a deep understanding of local Indonesian knowledge is becoming increasingly important. Local knowledge includes culture and traditions that have developed in Indonesian society over the years, but with the rapid influence of global culture and technological advances, the understanding of local knowledge is decreasing among the younger generation (Komariah & Asyahidda, 2019). One of the factors contributing to this decline in understanding is the use of English as the dominant global language. English has

become the main language in various fields, including higher education. Many Indonesian students use English in their daily lives and at university.

Information communication technology (ICT) creates new perspectives and practices among industries, academics, researchers, and practitioners. One of these is Industry 4.0, which encompasses digital transformation, new technology and the concept of value chain organization (Herman, Pentek, & Otto, 2016) and is the current trend of automation and data exchange in manufacturing technology (Ganeshan & Vethirajan, 2021). However, it can still be argued that technology replaces human labor, but technology, especially automation, only replaces jobs and not employees or labor. Masriadi (2023) stated that Education 4.0 has a bigger impact on higher education because it must prepare students to enter the world of Industry 4.0.

University graduates must be equipped with both hard and soft skills to be able to compete in the global world. Hard skills refer to the ability to complete a task in a particular field or activity based on the expertise they have gained in college. Conversely, soft skills refer to interpersonal skills that enable people to engage with others, such persuasion, communication, leading, negotiating, and working in teams. One of the most crucial soft skills that must be mastered by graduates is communication, which includes the ability to present ideas or material personally and professionally (Mehta & Mehta, 2019). By developing strong presentation and communication skills during their university education, graduates can enhance their professional image, increase their chances of career advancement, and thrive in the competitive job market.

To ensure that students are prepared for the demands of the professional world, universities must meet two important criteria: instructors need to effectively utilize technology, and they must be competent in selecting the appropriate mode of teaching and content (Gonzalez, Fuentes-Molina, & Jurado, 2016). By equipping instructors with the ability to utilize technology and make informed choices regarding modes of teaching and content selection, universities can better prepare graduates for the dynamic and evolving demands of the professional world. The mode of teaching that enhances technology is a virtual class, which, based on previous research studies, provides several benefits for teaching multiple courses (Krutka & Carano, 2016). Moreover, this mode of teaching virtual classes is important in maintaining the academic progress of students (Starkey, 2020) and allows students to participate in global education (Ozdamli & Cavus, 2011). This synchronized virtual mode of teaching has proved to be effective in developing students' ability in ESP presentation.

In addition to advancements in presentation technologies, it is crucial to consider the incorporation of Indonesian nationalism as a substantive element when addressing the government's mandate to cultivate a sense of pride among Indonesian citizens. This can be achieved by fostering a deep understanding of Indonesia's rich local knowledge and cultural heritage (Sukardi, 2017).

This research focuses on two questions. First, it focuses on the extent to which the synchronous virtual mode of teaching was effective in increasing students' speaking ability for presentations with local knowledge content through ESP courses. It is suspected that this mode is acceptable for teaching ESP business presentations. Second, it examines the extent to which presentation subskills contribute to supporting students' speaking ability for business presentations. Based on the research questions, which are also part of the dissertation project, this study aims to identify the significant differences in students' presentation ability with local knowledge as the content through ESP presentation.

2. REVIEW OF RELATED LITERATURE

This research develops a new concept of a synchronous, virtual mode of ESP teaching to strengthen students' ability to communicate and interact through business presentation skills by integrating local Indonesian knowledge. This concept is developed from theories on the method of teaching in tertiary education, presentation as part of communication, and local Indonesian knowledge as the content.

2.1. Modes of Teaching

Various teaching modes in educational research enhance student learning through lectures, group discussions, hands-on activities, and multimedia presentations (Hake, 1998; Mayer, 2001). These modes provide distinct benefits, catering to diverse learning styles and specific learning goals. In higher education, traditional methods, such as face-to-face instruction, workshops, and peer evaluations, have proven to be effective for teaching presentation skills. These methods prioritize practice, repetition, and personalized guidance, fostering effective oral communication competencies. Although traditional methods have limitations, such as limited class time and logistical challenges, they remain valuable for facilitating direct communication and immediate feedback in higher education settings.

The Covid-19 pandemic accelerated the adoption of virtual learning environments in education, with synchronous and asynchronous modes gaining popularity worldwide (Allen & Seaman, 2017). These approaches aim to address accessibility challenges, offer distance learning programs, and cater to diverse student populations, showcasing higher education institutions' willingness to embrace technology and provide alternative methods of education delivery. Among these modes, synchronous virtual classes have proved effective in teaching English for Specific Purposes (ESP) in higher education (Han, 2017; Li & Zhang, 2020; Perveen, 2016). Research indicates that synchronous virtual classes enhance language proficiency, communication skills, and learner engagement, offering immediate clarification and authentic industry-specific practice. With multimedia integration, these classes create dynamic and interactive ESP learning experiences, emphasizing their effectiveness in higher education settings (Arab-Moghaddam & Ramezani, 2014).

Numerous past studies have delved into the advantages and outcomes associated with synchronous virtual teaching, underscoring increased engagement, collaboration, and improved learning results (Bower, Dalgarno, Kennedy, Lee, & Kenney, 2015; Majid, Veen, & Udas, 2016; Turan, Balaban-Sali, Yılmaz-Soğan, & Temur, 2019). Real-time interactions within virtual classrooms offer the benefits of immediate feedback and active participation. By utilizing methodologies such as videoconferencing and collaborative document sharing, students are encouraged to engage in active learning and peer interactions (Tsekleves, Darby, & Whicher, 2020). It has been established that synchronous virtual teaching enhances knowledge acquisition, boosts student satisfaction, and fosters digital communication skills (Hrastinski, 2008). Furthermore, this mode effectively cultivates presentation skills by providing a secure space for practice and feedback, incorporating multimedia elements, and offering interactive features that encourage learners to explore various techniques (Son, 2018). The research underscores the positive influence of virtual teaching methods on presentation skills, resulting in increased confidence, improved delivery techniques, and heightened engagement (as observed by Lai (2016)). Hence, existing literature consistently reaffirms the efficacy of synchronous virtual teaching in cultivating meaningful learning experiences and enhancing presentation skills across various educational settings.

2.2. Presentation Skills in Higher Education

Presentation skills play a pivotal role in both academic and professional settings. In academia, students are often required to deliver presentations as part of their coursework, research projects, or conference presentations. Effective presentation skills enable students to articulate their ideas clearly, engage their audience, and communicate complex information concisely (Morgan, 2016). A study by Borden and Schumacher (2018) revealed that presentation skills are one of the top competencies sought by employers. In fields where collaboration and teamwork are essential, such as business or project management, the ability to present information effectively is crucial for successful communication and achieving organizational goals (Hrastinski, 2008). Thus, developing strong presentation skills equips individuals with a competitive advantage, enhances their professional image, and increases their chances of career advancement.

Business presentations serve multiple specific purposes within the corporate world. They are often used for persuasive purposes, aiming to convince stakeholders, clients, or investors to support a particular idea, product, or business plan (Burikova, Skolnik, Skorkovská, & Štěpánek, 2020). Effective business presentations employ persuasive techniques such as compelling storytelling, data-driven evidence, and clear value propositions to influence decision making. Additionally, business presentations are commonly used for informative purposes, providing updates, reports, or training sessions to employees, teams, or partners. With a specific purpose, this type of presentation has certain features and segments—the opening, the content, the closing, and a QA (question and answer) session—and each has a specific language expression (Penrod, Tucker, & Hartman, 2015). This also should be accompanied by gestures such as hand movements and facial expressions to support the presentation.

Imparting business presentation skills within higher education holds paramount importance as it equips students with indispensable competencies while bolstering their employability prospects. Employers place a high premium on effective presentation skills, recognizing that business presentations catalyze the cultivation of crucial communication, problem-solving, and teamwork proficiencies, as highlighted in previous research by Broussard (2017) and Hoskins, Washbush, and Rikard (2017). Furthermore, the infusion of local Indonesian knowledge into English for Specific Purposes courses not only enhances learners' intercultural competence but also deepens their understanding of the local context, as indicated in the study conducted by Yuliana, Suryanto, and Irawati (2021).

This incorporation of local knowledge goes beyond surface-level benefits, fostering cultural appreciation, facilitating sustainable communication, and equipping students to effectively navigate and contribute to their respective fields within Indonesia (Huda, Wulandari, & Ratnawati, 2020; Purwati & Kuswandi, 2019; Suryanto, Yuliana, & Raharjo, 2018). By combining the pedagogy of presentation skills with the integration of local Indonesian knowledge, higher education institutions provide students with a comprehensive approach that not only advances their language proficiency but also enriches their cultural understanding, ultimately preparing them for success in their local contexts.

2.3. Pedagogical Strategies

In a virtual setting, effective pedagogical strategies can be utilized to enhance presentation skills. Clear guidelines and expectations aid students in structuring their presentations effectively (Bovee & Thill, 2018). Interactive activities, such as virtual group discussions and peer evaluations, foster engagement and collaborative learning (Miller, Thomas, Smith, & Steele, 2021). Multimedia tools and technologies enhance visual appeal and dynamism in presentations. Integrating self-reflection exercises and individual practice opportunities allows students to identify areas for improvement and gain confidence (Wang & Chen, 2020). Employing these strategies creates an engaging and supportive virtual learning environment that effectively enhances students' presentation skills.

Instructors can enhance presentation skills by focusing on key aspects such as structure, delivery techniques, and effective use of gestures. A well-organized presentation with clear sections and a logical flow aids in conveying ideas coherently (Bovee & Thill, 2018). Opening and closing statements, along with smooth transitions, further enhance the structure and impact of the presentation. Delivery techniques, such as vocal variety, eye contact, and body language, significantly influence audience engagement (Bryden & Nair, 2018).

The utilization of energetic speech delivery, modulation of tone and pace, and consistent eye contact contribute to a dynamic presentation style. Purposeful gestures involving hand movements and facial expressions can effectively underscore important points and enhance nonverbal communication, as demonstrated in prior research by Vingerhoets, Bylsma, and Jovanovic (2020) and Barron (2022). By integrating these tactics into their presentations, speakers can enhance their abilities, captivate their audience, and deliver presentations that are memorable and impactful.

3. METHODS

This study uses an experimental design with two groups: A control group (G1) comprising 30 students and an experiment group (G2). All participants were in the first semester at Bina Nusantara University Indonesia in 2019 and enrolled in the English for Business Presentation Course. The participants were homogenous as they had the same standard of English proficiency level, with scores of over 500 out 677 in the International Paper-Based TOEFL (Test of English as a Foreign Language), which at this university is categorized as ready-to-use English as the means of instruction in the classroom. This compulsory proficiency test was taken when they enrolled in the university to determine the stream of English course taken.

This study focuses on students' business presentation ability both before and after the development phase, which aims to improve students' business presentation skills that encompass structure, delivery, and effective use of gestures in their presentations (Bovee & Thill, 2018). The "before" phase represents participants who have not yet achieved the target level of presentation skills, while "after" signifies any increase in their business presentation ability. The development involved teaching the components of presentations, delivery techniques, and skillful use of body language, facial expressions, and hand movements to support a smooth delivery. The control group received synchronous real-time teaching, while the experiment group received synchronous virtual teaching to achieve this improvement.

This study is strengthened by integrating local Indonesian knowledge as the content of the presentation. There are two topics of local Indonesian knowledge, namely Pancasila and Tourist Destination (TD). Pancasila includes an explanation of what it is and how it symbolizes the Indonesian nation, while the Tourist Destination topic refers to the participant's place of origin and includes a description of the place, its history, and its importance to the region or country. By integrating these topics, students are equipped with capacity building and knowledge, so it is expected that they will not only have some level of presentation skills but also the ability to understand local Indonesian knowledge.

3.1. The Procedure of the Experiment

Data collection was carried out in three steps, i.e., pre-activities, main activities, and post-activities. Pre-activities involved the first meeting for both groups. G1 received an introduction and overview of the course in a real face-to-face class, while G2 had the same introduction and overview but was fully delivered in synchronous virtual mode using WebEx videoconferencing. To familiarize the G2 participants with the virtual platform, they were taught how to operate the application. They practiced using it to minimize potential technical issues during the sessions. After the first meeting, each participant in G1 and G2 gave 10-minute business presentations, digitally recorded. They were given a week to videotape three presentations on different topics, which were then uploaded to a YouTube Channel, serving as the pre-test score. The main activities encompassed development sessions for both groups using different teaching modes throughout the semester. Each group had 13 weekly sessions, with G1 using synchronous real class mode and G2 using synchronous virtual class mode. Additionally, both groups had three guided self-learning classes via *Binusmaya* – the Binus University Learning Management System – where they independently learned business presentation knowledge and language expressions for presentation. The lecture materials were explained and presentation practice was conducted through a virtual videoconference mode of teaching.

Post-activities included participants from G1 and G2 performing three 10-minute business presentations in English. They recorded their presentations digitally and uploaded them to a YouTube channel for assessment. The assessment method was the same as the pre-test, and the scores were used as the post-test scores. In the experiment, three main parts were assessed: presentation structure, delivery, and gestures (Penrod et al., 2015). The presentation structure with 25-point scores comprises five micro-skills: opening (introduction of topic and purpose), outline (presentation structure explanation), content (logical presentation), closing, and Q&A handling. The

delivery, the largest part with a total of 55 points, included introduction, voice, information delivery, language skills, pronunciation, conclusion, and signposting. Lastly, the gesture part, with 20 points, assessed eye contact management, hand and body movements, and self-confidence. The main data collected were the pre-test and post-test assessment results, covering three different topics and skills.

3.2. Data Analysis

The data is non-parametric statistical; therefore, the Wilcoxon signed-rank test was used to pair the data. This test is used to assess the significance of comparative hypotheses between two independent samples of equal size and with ordinal data (Wahid, 2002). The Wilcoxon signed-rank test is a nonparametric test used to measure the difference between two groups of paired data on an ordinal or interval scale, but the data is not normally distributed. It is also known as the matched pairs test. The basis for decision making in the Wilcoxon signed-rank test is as follows: When the *asymp. sig 2* failed probability value is < 0.05, there is an average difference, and when the probability value of *asymp. sig 2* failed is > 0.05, there is no average difference.

Based on previous research studies, there are three major hypotheses proposed:

H1: There is a significant difference between the pre-test and post-test scores for Pancasila, Tourist Destination, and Free Topic for the control group.

H2: There is a significant difference between the pre-test and post-test scores for Pancasila, Tourist Destination, and Free Topic for the experiment group.

H3: There is a significant difference between the post-test scores for Pancasila, Tourist Destination, and Free Topic between the control and experiment groups.

3.3. The Result

The experimental research conducted revealed intriguing findings. The findings are presented in three main parts, the results of the Control Group and the Experiment Group. The result is based on the hypothesis developed and described every topic to find the development of students' development of presentation skills by topic or content. In each topic, the students' speaking ability is determined by their presentation skills, namely the structure, the delivery, and the gesture of presentation.

3.3.1. Pancasila Topic for the Control Group

The statistical analysis of this topic is as follows:

Table 1. Statistic test[a] for the Pancasila scores in the control group.

Variable	Z	Asymp. sig. (2-tailed)
Post-test total score for Pancasila – Pre-test total score for Pancasila	-4.764[b]	0.000
Post-test structure score for Pancasila – Pre-test structure score for Pancasila	-4.415[b]	0.000
Post-test delivery score for Pancasila – Pre-test delivery score for Pancasila	-4.489[b]	0.000
Post-test gesture score for Pancasila – Pre-test gesture score for Pancasila	-4.275[b]	0.000

Note: a. Wilcoxon signed-rank test
b. Based on negative ranks.

From the results of the Wilcoxon signed-rank test in Table 1, the Z value for the total score for Pancasila was -4.579 and the *asymp sig. (2-tailed)* 0.000 is smaller than the alpha level of *p* 0.05. Therefore, it rejects Ho. It is concluded that there is a significant difference between the average total of the pre-test and post-test scores for the Pancasila topic in the Control Group. The results for students' abilities regarding structure, delivery, and gestures is the *asymp sig. (2-tailed)* 0.000 < 0.05. The students' scores for each ability are the same as the total scores, showing that there is a significant difference after the treatment.

The descriptive statistics (see Figure 1) further explain that in the Pancasila topic, the presentation skills show differences, either by the total score or by each presentation skill. Based on the analysis, the result for each presentation skill varies; either the post-test result is higher than the pre-test, or the pre-test result is higher than the post-test. The pre- and post-test scores were calculated by finding the difference between the minimum and maximum scores, then divided by three to find the achievement.

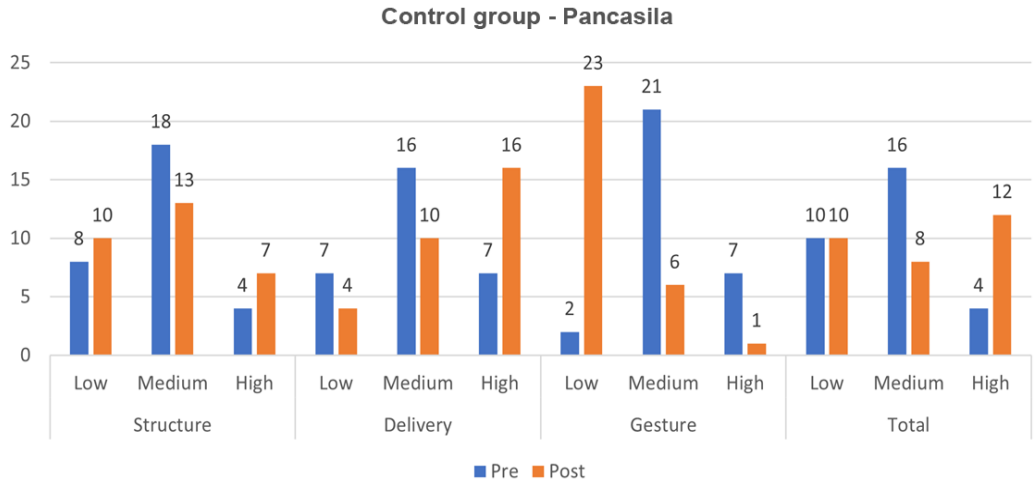

Figure 1. The pre-test and post-test scores for Pancasila in the control group.

Figure 1 depicts the scores for the total performance, structure, and delivery of the presentations. The analysis revealed changes in the distribution of low, medium, and high scores before and after implementing the synchronized real mode of teaching. In the pre-test and post-test assessments of the Pancasila topic, the frequency of lower scores remained consistent, while the medium score decreased from 16 to 8. In contrast, the frequency of high scores increased from 4 to 12, indicating an improvement in the overall presentation skills of the students. However, the findings regarding the use of gestures during the presentation differ. The frequency of low scores increased, while the frequency of medium and high scores decreased. These findings align with previous studies (Clough & Duff, 2020; Zanola, 2016), which suggests that students often prioritize content delivery and tend to pay less attention to incorporating gestures to enhance their presentations.

3.3.2. Tourist Destination Topic for the Control Group

The statistical analysis of this topic is as follows:

Table 2. Statistic test[a] for the tourist destination scores in the control group.

Variable	Z	Asymp. sig. (2-tailed)
Post-test total score for tourist destination – Pre-test total score for tourist destination	-4.784[b]	0.000
Post-test score for structure for tourist destination – Pre-test score for structure for tourist destination	-4.638[b]	0.000
Post-test score for delivery for tourist destination – Pre-test score for delivery for tourist destination	-4.516[b]	0.000
Post-test score for gesture for tourist destination – Pre-test score for gesture for tourist destination	-4.365[b]	0.000

Note: a. Wilcoxon signed-rank test.
b. Based on negative ranks.

From the results of the Wilcoxon signed-rank test in Table 2, the Z value for the total score for Tourist Destination is -4.784, and the *asymp sig. (2-tailed)* 0.000 is smaller than the alpha level of $p < 0.05$. Therefore, it rejects Ho and the assumption that there is a significant difference between the average total of the pre-test and

post-test scores for the Tourist Destination topic in the Control Group is accepted. The result for students' abilities regarding structure, delivery, and gestures are the same, with the *asymp sig. (2-tailed)* 0.000 < 0.05. The conclusion of the students' abilities scores is the same as the total score, indicating that there is a significant difference in the scores after the treatment.

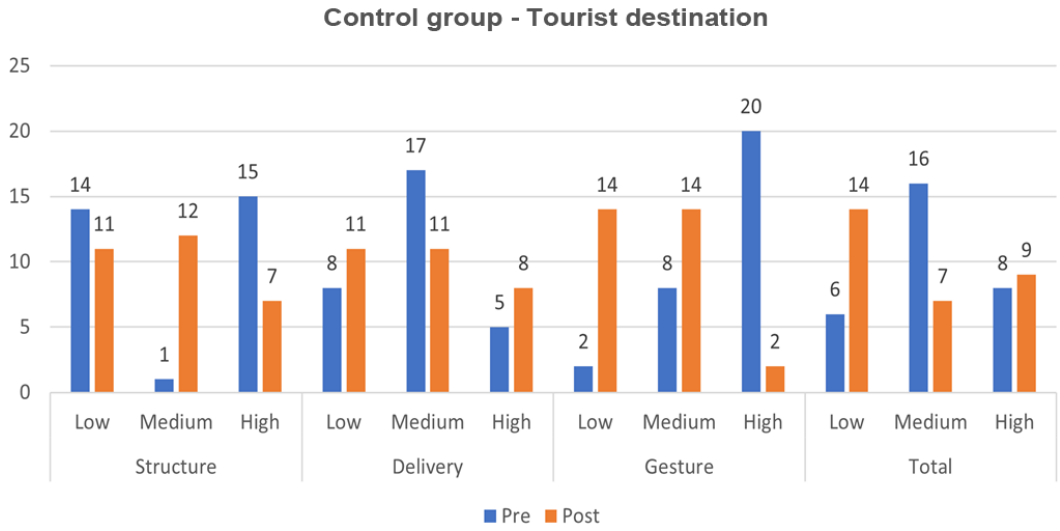

Figure 2. The pre-test and post-test scores for tourist destination in the control group.

Figure 2 provides diverse descriptive statistics for the Tourist Destination topic, showing changes in the total scores and individual presentation skill scores before and after the treatment. The total pre-test and post-test scores revealed an increase in the frequency of low and high scores, with a decrease in the medium scores. Regarding presentation structure, the medium scores increased and the high scores decreased, suggesting a priority for conveying specific information over the structure of the presentation. In terms of delivery, there is an increase in the frequency of the low and high scores, with a decrease in the medium scores. Similarly, for gestures, there is an increase in the frequency of low and medium scores, but a decrease in high scores, consistent with the pattern observed in the Pancasila topic.

3.3.3. Free Topic for the Control Group

The statistical analysis of this topic is as follows:

Table 3. Statistic test[a] for the free topic scores in the control group.

Variable	Z	Asymp. sig. (2-tailed)
Post-test total score for the free topic – Pre-test total score for the free topic	-4.787[b]	0.000
Post-test score for structure for the free topic – Pre-test score for structure for the free topic	-4.415[b]	0.000
Post-test score for delivery for the free topic – Pre-test score for delivery for the free topic	-4.789[b]	0.000
Post-test score for gesture for the free topic – Pre-test score for gesture for the free topic	-4.788[b]	0.000

Note: a. Wilcoxon signed-rank test.
b. Based on negative ranks.

From the results of the Wilcoxon signed-rank test in Table 3, the Z value for the total scores for the Free Topic was -4.787, and the *asymp sig. (2-tailed)* 0.000 is smaller than the alpha level of *p* 0.05. Therefore, it rejects Ho, and the assumption that there is a significant difference between the average total score of pre-test and post-test scores in the Free Topic for the control group is accepted. The result for students' abilities regarding structure,

delivery, and gestures are the same, with the *asymp sig. (2-tailed)* 0.000 < 0.05. The conclusion of the students' abilities is the same as the total score.

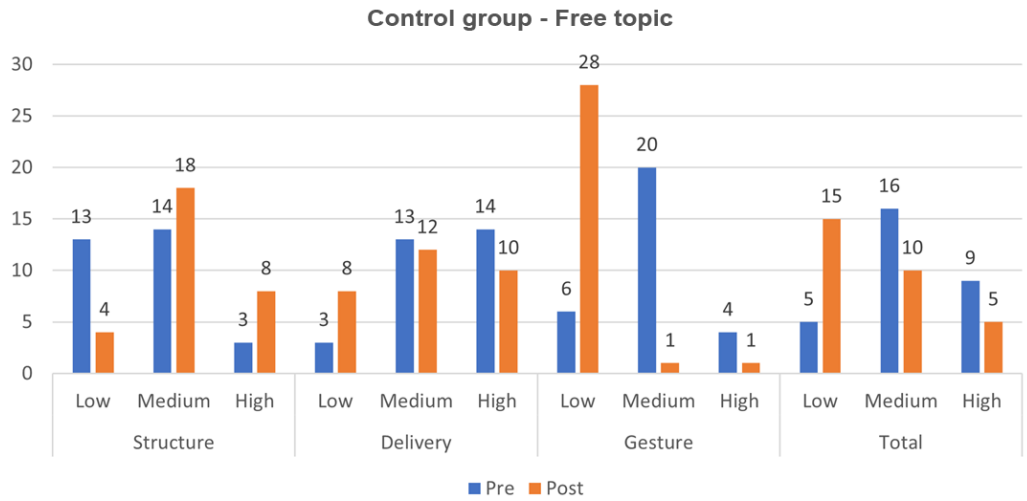

Figure 3. The pre-test and post-test scores for the free topic in the control group.

The descriptive statistics in Figure 3 compare scores before and after treatment in the Free Topic for the synchronized virtual mode of teaching. Variations were observed in the results for each presentation skill. The frequency of the low and high scores increased, while the medium scores decreased. This supports previous research suggesting that a free topic aligns with language skills and domain-specific knowledge enhances presentation quality. The results for each presentation skill showed mixed findings. Students' delivery and gesture skills exhibited an increase in the low scores and a decrease in the medium and high scores, while structure skills showed an increase in the medium and high scores.

3.3.4. Pancasila Topic for the Experiment Group

The statistical analysis of this topic is as follows:

Table 4. Statistic test[a] for the pre- and post-test Pancasila scores in the experiment group.

Variable	Z	Asymp. sig. (2-tailed)
Post-test total score for Pancasila – Pre-test total score for Pancasila	-4.764[b]	0.000
Post-test score for structure for Pancasila – Pre-test score for structure for Pancasila	-4.415[b]	0.000
Post-test score for delivery for Pancasila – Pre-test score for delivery for Pancasila	-4.489[b]	0.000
Post-test score for gesture for Pancasila – Pre-test score for gesture for Pancasila	-4.275[b]	0.000

Note: a. Wilcoxon signed-rank test
b. Based on negative ranks.

From the results of the Wilcoxon signed-rank test in Table 4, the Z value for the total score for Pancasila in the experiment group was -4.764, and the *asymp sig. (2-tailed)* 0.000 is smaller than the alpha level of p 0.05. Therefore, it rejects Ho, and the assumption that there is a significant difference between the average total score of the pre-test and post-test scores for the Pancasila topic in the experiment group is accepted. The result for students' abilities regarding structure, delivery, and gestures is *asymp sig. (2-tailed)* 0.000 < 0.05. It is concluded that the students' presentation ability scores have significant differences before and after the treatment.

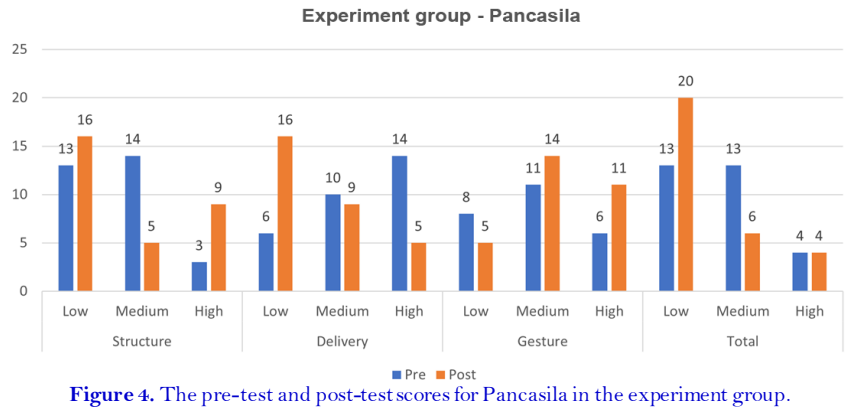

Figure 4. The pre-test and post-test scores for Pancasila in the experiment group.

Figure 4 utilizes descriptive statistics to compare the pre- and post-treatment scores for the Pancasila topic with the synchronized virtual mode of teaching. The analysis revealed variations in the results for each presentation skill. The total score increased, while the medium score decreased, with the high score remaining unchanged. Structure and delivery skills show an increase in the low scores and a decrease in the medium scores, but the results differ for the high scores, with an increase in structure but a decrease in delivery. Gesture skills exhibit a unique pattern, with an increase in the medium and high scores, showing enhanced language proficiency and communication skills among ESP students (Li & Zhang, 2020).

3.3.5. Tourist Destination Topic for the Experiment Group

The statistical analysis of this topic is as follows:

Table 5. Statistic test[a] for the pre- and post-test tourist destination scores in the experiment group.

Variable	Z	Asymp. sig. (2-tailed)
Post-test total score for tourist destination – Pre-test total score for tourist destination	-4.784[b]	0.000
Post-test score for structure for tourist destination – Pre-test score for structure for tourist destination	-4.638[b]	0.000
Post-test score for delivery for tourist destination – Pre-test score for delivery for tourist destination	-4.516[b]	0.000
Post-test score for gesture for tourist destination – Pre-test score for gesture for tourist destination	-4.365[b]	0.000

Note: a. Wilcoxon signed-rank test.
b. Based on negative ranks.

From the results of the Wilcoxon signed-rank test in Table 5, the Z value for the total score for Tourist Destination in the experiment group is -4.784, and the *asymp sig. (2-tailed)* 0.000 is smaller than the alpha level of *p* 0.05. Therefore, it rejects Ho, and the assumption that there is a significant difference between the average total pre-test and post-test scores for the Tourist Destination topic in the experiment group is accepted. The results for students' abilities regarding structure, delivery, and gestures is *asymp sig. (2-tailed)* 0.000 < 0.05. It is concluded that the students' presentation ability scores are significantly different before and after the treatment.

Figure 5 compares pre- and post-treatment scores for the Tourist Destination topic for the synchronized virtual mode of teaching. Variations are evident in the total scores and for the three presentation skills. The total score frequency increased for low and medium scores, while the high score decreased. Structure and delivery skills exhibited an increase in the low scores and a decrease in the high scores, with an increase in the medium scores. The medium score significantly increased from 1 to 12. Gesture skills demonstrated a unique pattern, with an increase in the low scores and a decrease in the medium and high scores, indicating constraints in using gestures due to technical limitations in virtual presentations, such as limited camera angles or poor video quality (Gaffas, 2023).

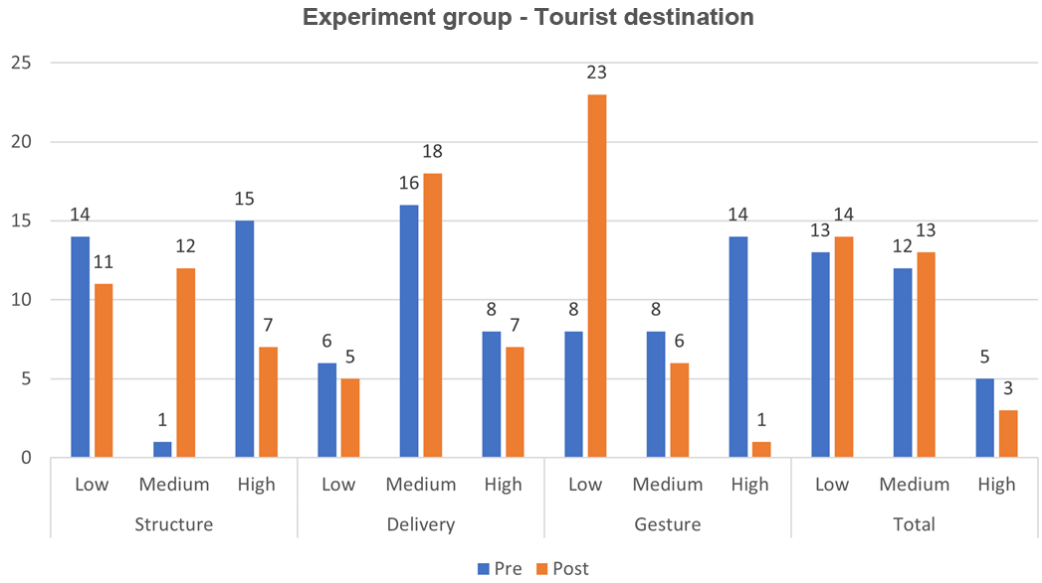

Figure 5. The pre-test and post-test scores for the tourist destination topic in the experiment group.

3.3.6. Free Topic for Experiment Group

The statistical analysis of this topic is as follows:

Table 6. Statistic test[a] for the pre- and post-scores for the free topic in the experiment group.

Variable	Z	Asymp. sig. (2-tailed)
Post-test total score for the free topic – Pre-test total score for the free topic	-4.787[b]	0.000
Post-test score for structure for the free topic – Pre-test score for structure for the free topic	-4.415[b]	0.000
Post-test score for delivery for the free topic – Pre-test score for delivery for the free topic	-4.789[b]	0.000
Post-test score for gesture for the free topic – Pre-test score for gesture for the free topic	-4.788[b]	0.000

Note: a. Wilcoxon signed-rank test.
b. Based on negative ranks.

From the results of the Wilcoxon signed-rank test in Table 6, the Z value for the total score for the Free Topic in the experiment group is -4.787, and the *asymp sig. (2-tailed)* 0.000 is smaller than the alpha level of p 0.05. Therefore, it rejects Ho, and the assumption that there is a significant difference between the average total pre-test and post-test scores for the Free Topic in the experiment group is accepted. The result for students' abilities regarding structure, delivery, and gestures is *asymp sig. (2-tailed)* 0.000 < 0.05. It is concluded that the students' presentation ability scores have significant differences before and after the treatment.

Figure 6 compares the scores before and after the treatment for the Free Topic using the synchronized virtual mode of teaching. The analysis shows variations in the total scores and for each presentation skill. The total score demonstrates an increase in medium scores and shows decreases in both the low and high scores. For structure skills, there is an increase in the high scores and a decrease in the medium scores, with no change in the low scores. In terms of delivery, there is an increase in the low scores, a decrease in the medium scores, and no change in the high scores. The study highlights that one limitation of structure skills in virtual settings is the reduced visibility and limited camera framing, which may hinder the audience's ability to accurately observe and interpret gestures (Wienold, 2020).

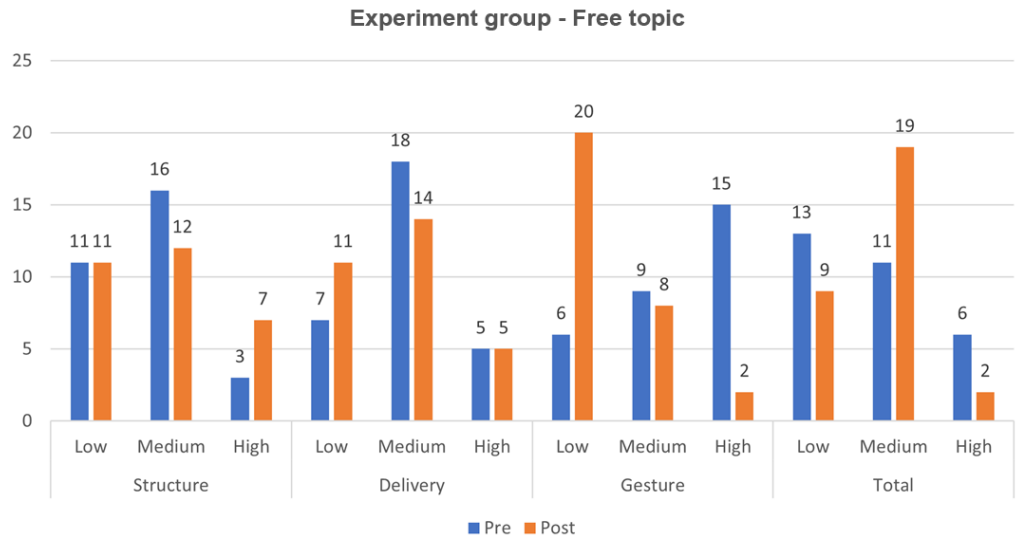

Figure 6. The pre-test and post-test scores for the free topic in the experiment group.

3.3.7. Statistical Analysis between the Control Group and the Experiment Group

The test results comparing the control group and the experimental group based on presentation skills indicate differences between the two.

Table 7. Statistic test[a] for the control and experiment groups' scores for the Pancasila topic.

Variable	Z	Asymp. sig. (2-tailed)
Control total Pancasila – Experiment total Pancasila	-4.785[b]	0.000
Control structure Pancasila – Experiment structure Pancasila	-3.318[b]	0.001
Control delivery Pancasila – Experiment delivery Pancasila	-4.593[b]	0.000
Control gesture Pancasila – Experiment gesture Pancasila	-2.648[b]	0.008

Note: a. Wilcoxon signed-rank test.
b. Based on negative ranks.

3.3.8 Pancasila Topic Results

Table 7 shows the comparison between the control group and the experimental group for the Pancasila topic using the Wilcoxon test, which revealed significant differences overall ($p = 0.00$), indicating that there is a significant distinction between the two groups in terms of the evaluated presentation skills. In addition, when analyzing presentation skills, structure exhibits a significant difference ($p = 0.01$), delivery shows a significant difference ($p = 0.00$), and gesture did not achieve statistical significance ($p = 0.08$). These findings imply that the experiment group's treatment or intervention significantly improved their overall presenting skills compared to the control group, especially regarding structure and delivery. However, as the difference was not statistically significant, further development for gesture skills may be required.

Table 8. Statistic test[a] for the control and experiment groups' scores for the tourist destination topic.

Variable	Z	Asymp. sig. (2-tailed)
Control group total score for tourist destination – Experiment group total score for tourist destination	-4.785[b]	0.000
Control group score for structure for tourist destination – Experiment group score for structure for tourist destination	-2.100[b]	0.036
Control group score for delivery for tourist destination – Experiment group score for delivery for tourist destination	-4.386[b]	0.000
Control group score for gesture for tourist destination – Experiment group score for gesture for tourist destination	-0.888[b]	0.375

Note: a. Wilcoxon signed-rank test.
b. Based on negative ranks.

3.3.9. Tourist Destination Topic Results

The Wilcoxon comparison test results for the Tourist Destination topic between the experimental and control groups are shown in Table 8. Significant differences were discovered (p = 0.00), demonstrating a clear divergence between the two groups' evaluated presentation skills. The intervention in the experimental group substantially improved their delivery skills (p = 0.00). However, there were no discernible variations for structure (p = 0.36) or gesture (p = 0.375). These results indicate that although the treatment significantly improved general presenting abilities and delivery, more work is still required to enhance structure and gesture abilities in the context of the Tourist Destinations topic.

Table 9. Statistic test[a] for the control and experiment groups' scores for the free topic.

Variable	Z	Asymp. sig. (2-tailed)
Control group total score for the free topic – Experiment group total score for the free topic	-4.679[b]	0.000
Control group score for structure for the free topic – Experiment group score for structure for the free topic	-4.786[b]	0.000
Control group score for delivery for the free topic – Experiment group score for delivery for the free topic	-4.621[b]	0.000
Control group score for gesture for the free topic – Experiment group score for gesture for the free topic	-1.192[b]	0.233

Note: a. Wilcoxon signed-rank test.
b. Based on negative ranks.

3.3.10 Free Topic Results

The Wilcoxon test comparison in Table 9 shows notable differences in the evaluated presentation skills between the control and experimental groups for the Free Topic. Compared to the control group, the experimental group's structure (p = 0.00) and delivery (p = 0.00) skills both demonstrated significant gains due to the treatment.

However, the gesture skill did not reach statistical significance (p = 0.233), suggesting no significant difference between the two groups in this aspect. These results highlight the substantial impact of the treatment on overall presentation skills, particularly structure and delivery, in the context of the Free Topic. For future interventions, further attention may be necessary to enhance gesture skills.

4. DISCUSSION

The statistical test for H1 in the control group before and after treatment using the synchronous real mode of teaching for business presentation skills indicates a positive impact on overall presentation abilities, including structure, delivery, and gesture. This mode of teaching proved to be effective for all three topics. However, the level of improvement in each presentation skill varies. In the Pancasila topic, delivery skills showed the most significant improvement, with a notable increase in the high scores. The structure skill demonstrates an increase in the medium scores but the gesture skills showed a decrease in the high scores. These findings align with previous research indicating that the focus on content and structure might overshadow gestures (Clough & Duff, 2020; Zanola, 2016).

As in H1, the statistical test for H2 for the experiment group before and after treatment using the synchronous virtual mode of teaching to teach business presentation skills indicate that this mode of teaching improved the students' abilities in overall presentation skills, including structure, delivery, and gesture. Furthermore, the statistical results also show that in the Pancasila and Local Tourist Destination topics, this mode of teaching contributed to significant differences in the scores, indicating its effectiveness. In the Free topic, it also produced significant differences, although the improvement in each presentation skill varies. In the Pancasila topic, the largest improvements are observed in structure and gesture, with a significant increase in the high scores. In contrast, the delivery skill shows a decrease in the high score but an increase in the low score. These findings are

consistent with previous research studies stating that the virtual mode for presentation faced barriers because the use of this mode in delivering content for ESP business presentation presents technological glitches and limited interactivity, which can disrupt the flow and engagement of the presentation.

Both the control and experiment group results showed significant differences. The results on the topic of Pancasila indicate significant differences between the control group and the experimental group in terms of their scores for the variables. The experimental group had significantly higher scores than the control group for the total overall scores and for structure, delivery and gesture. These results imply that the experimental intervention improved the participants' capacity to deliver information regarding Pancasila.

For the Tourist Destination topic, the findings show a substantial difference in the scores for the variables between the experimental and control groups. The total and delivery scores for Tourist Destination were where the experimental group outperformed the control group by a substantial margin. However, there were no appreciable variations between the two groups for the variables of structure and gesture. These results imply that, in contrast to the structure and gesture components of the Tourist Destination theme, the experimental intervention improved the participants' performance and presenting skills in the total and delivery aspects.

Regarding the Free Topic, the outcomes show a noteworthy distinction in the scores for the variables between the experimental and control groups. In terms of total score, structure and delivery, the experimental group outperformed the control group by a large margin. However, there was no discernible difference between the two groups for the gesture variable. These results imply that, although the gesture element of the Free Topic was not affected, the experimental intervention improved the participants' performance and proficiency in the total, structure, and delivery aspects.

The differences in the three topics show that the synchronized virtual mode of teaching used in the experimental group had a positive impact on developing the students' presentation ability, and the findings of previous studies have also highlighted the benefits of virtual modes of teaching in enhancing presentation skills. Virtual synchronous modes of teaching have been found to improve language proficiency, communication skills, and engagement among ESP students (Han, 2017; Li & Zhang, 2020).

However, even though the mode of teaching significantly improved the students' presentation skills, it failed to develop students' ability in certain areas based on the topic given. For the Pancasila topic, the students' presentation ability significantly developed in all aspects of presentation skills (structure, delivery, and gesture), while for the Tourist Destination topic, only delivery improved, and in the Free Topic only structure and delivery skills improved. Among the three topics, Pancasila showed development of all presentation skills.

5. CONCLUSION

The three hypotheses proposed in this research are all accepted. It can be concluded that both synchronous real and virtual modes of teaching had a positive impact on developing students' abilities in overall presentation skills, as well as in specific topics such as Pancasila and Tourist Destinations. The experiment group showed significantly higher scores compared to the control group for the variables of total score, structure, delivery, and gesture. However, it is worth noting that the improvement in presentation skills varied across different aspects and topics. Although there were restrictions on developing gesture skills in two of the topics, the experimental interventions successfully improved students' abilities in other areas. These results highlight how crucial it is to consider topic-specific difficulties and modify instructional tactics to target areas for development. Synchronous virtual instruction has demonstrated the potential to help students improve their presenting skills. Still, for thorough skill development, the focus should be on resolving constraints and streamlining instructional techniques.

6. LIMITATIONS AND FURTHER STUDIES

The modest sample size and the study's constraint to a particular ESP business presentation environment are among its shortcomings. The study only included a small number of subjects, which do not represent all the subjects and presentation skills covered in ESP. Furthermore, beyond the initial post-treatment assessment, the study did not investigate the interventions' long-term effects on students' presentation abilities.

Future research should address the limitations by expanding the sample size and including people from various educational institutions to improve generalizability. A wider variety of ESP business presentation subjects should be studied to evaluate the long-term effects of treatments on students' presentation abilities. Furthermore, various contrasting virtual platforms or implementing blended learning strategies would offer insightful information on efficient virtual teaching strategies for improving presentation abilities. In this way, further research can advance our understanding of the potential of virtual teaching in ESP business presentations and guide the development of instructional strategies that will help students perform better in professional settings.

7. IMPLICATION

This research makes a significant contribution to our comprehension of how the simultaneous use of in-person and virtual teaching methods affect the development of students' presentation skills, particularly in the context of English for Specific Purposes (ESP). Furthermore, it offers valuable practical insights for educators and curriculum developers engaged in ESP instruction. It underscores the potential effectiveness of incorporating synchronous virtual teaching methods as a means of enhancing students' presentation skills, particularly when coupled with the incorporation of local Indonesian knowledge and a range of diverse topics into the curriculum.

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REFERENCES

Allen, I. E., & Seaman, J. (2017). *Digital compass learning: Distance education enrollment report 2017. Babson Survey Research Group.* Retrieved from https://files.eric.ed.gov/fulltext/ED580868.pdf

Arab-Moghaddam, N., & Ramezani, H. (2014). The effect of synchronous and asynchronous CMC on oral performance and proficiency development in ESP context. *Journal of Language Teaching and Research, 5*(2), 330-338.

Barron, B. (2022). *Facial expressions in public speaking. In P. J. Hills (Ed.), The Oxford Encyclopedia of Psychology of Communication.* Oxford: Oxford University Press.

Borden, V. M. H., & Schumacher, P. (2018). Exploring communication competencies: A survey of professionals in STEM careers. *Journal of Communication Pedagogy, 1*(2), 83-102.

Bovee, C. L., & Thill, J. V. (2018). *Business communication today* (14th ed.). Harlow: Pearson Education Limited.

Bower, M., Dalgarno, B., Kennedy, G., Lee, M. J., & Kenney, J. (2015). Design and implementation factors in blended synchronous learning environments: Outcomes from a cross-case analysis. *Computers & Education, 86*, 1-17. https://doi.org/10.1016/j.compedu.2015.03.006

Broussard, D. L. (2017). What employers want: Skills and attributes for business graduates' employability. *Business Communication Quarterly, 80*(4), 412-426.

Bryden, P., & Nair, C. S. (2018). Impact of delivery techniques on audience engagement and perception of presenters. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 62*(1), 2104-2108.

Burikova, I., Skolnik, M., Skorkovská, Š., & Štěpánek, L. (2020). How to make a presentation effective? The effect of different presentation techniques on persuasiveness. *Procedia Computer Science, 170*, 1981-1987.

Clough, M. P., & Duff, A. (2020). Making a case for gestures in the language classroom. *TESOL Quarterly, 54*(3), 682-691.

Gaffas, Z. M. (2023). Students' perceptions of e-learning ESP course in virtual and blended learning modes. *Education and Information Technologies, 28*, 10329–10358. https://doi.org/10.1007/s10639-023-11579-x

Ganeshan, M. K., & Vethirajan, C. (2021). *Impact of industry 4.0 and digitalization of modern technology*. Paper presented at the Proceeding Middle East International Conference on Contemporary Scientific Studies.

Gonzalez, C., Fuentes-Molina, C., & Jurado, D. L. S. P. (2016). Effects of the flipped classroom model on student performance and satisfaction in high school. *Education Magazine, 374*, 97-119.

Hake, R. R. (1998). Interactive engagement versus traditional methods: A six-thousand-student survey of mechanics tests data for introductory physics courses. *American Journal of Physics, 66*(1), 64-74.

Han, H. (2017). A qualitative analysis of synchronous online English courses for adults: Focusing on instructional strategies and activities. *English Teaching, 72*(3), 31-52.

Herman, M., Pentek, T., & Otto, B. (2016). *Design principles for industrie 4.0 scenarios*. Paper presented at the In System Sciences (HICSS), 2016 49th Hawaii International Conference, IEEE.

Hoskins, B. L., Washbush, J. B., & Rikard, R. V. (2017). Assessment of oral communication skills: A comparison of business and engineering students. *Business and Professional Communication Quarterly, 80*(1), 84-100.

Hrastinski, S. (2008). Asynchronous and synchronous e-learning. *Educause Quarterly, 31*(4), 51-55.

Huda, N., Wulandari, D., & Ratnawati, L. (2020). The development of English materials based on local wisdom in Javanese culture for the faculty of agriculture. *Dynamics of Science, 20*(1), 137-148.

Komariah, E. S., & Asyahidda, F. N. (2019). *Decrease or increase: Analysis of the existence of local wisdom as the core of education in the technology Era. Advances in social science, education and humanities research, volume 438*. Paper presented at the 4th Asian Education Symposium (AES 2019). Atlantis Press.

Krutka, D. G., & Carano, K. T. (2016). Videoconferencing for global citizenship education: Wise practices for social studies educators. *Journal of Social Studies Education Research, 7*(2), 109-136. https://files.eric.ed.gov/fulltext/EJ1121636.pdf

Lai, C. (2016). Virtual reality in enhancing students' presentation skills. *Journal of Educational Technology Development and Exchange, 9*(2), 47-58.

Li, Y., & Zhang, X. (2020). Effects of online synchronous interaction on EFL learners' speaking proficiency and interactional patterns. *Language Learning & Technology, 24*(3), 67-88.

Majid, A. H. A., Veen, W., & Udas, K. (2016). Synchronous online teaching and learning in a tertiary setting: Assessing satisfaction and perceived learning of lecturers and students. *Interactive Learning Environments, 24*(4), 791-809.

Masriadi. (2023). Exploring the future of work: Impact of automation and artificial intelligence on employment *Endless International Journal of Future Studies, 6*(1), 125-136.

Mayer, R. E. (2001). *Multimedia learning*. Cambridge: Cambridge University Press.

Mehta, N. K., & Mehta, D. (2019). Using English in presentation skills for personal and professional endeavors in the multicultural setting. *ERL Journal, 2*(2), 125-130. https://doi.org/10.36534/erlj.2019.02.11

Miller, S. B., Thomas, S., Smith, S. J., & Steele, L. M. (2021). Fostering engagement in online and blended learning environments: Strategies and tactics from a small private institution. *Online Learning, 25*(2), 246-266.

Morgan, N. A. (2016). Speaking of success: Enhancing oral communication skills. *College Teaching, 64*(3), 95-104.

Ozdamli, F., & Cavus, N. (2011). Basic elements and characteristics of mobile learning. *Procedia-Social and Behavioral Sciences, 28*, 937-942. https://doi.org/10.1016/j.sbspro.2011.11.173

Penrod, C., Tucker, M., & Hartman, K. (2015). Assessing business presentation skills: Assuring learning through assessment, analysis, and curriculum improvement. *Journal of Behavioral Studies in Business, 8*, 1-6.

Perveen, A. (2016). Synchronous and asynchronous e-language learning: A case study of virtual university of Pakistan. *Open Praxis, 8*(1), 21-39. https://doi.org/10.5944/openpraxis.8.1.212

Purwati, N. D. A., & Kuswandi, D. (2019). Integrating local wisdom in teaching ESP for tourism students. *Journal of English Language Teaching*, *8*(1), 1-11.

Son, J. (2018). *Designing a virtual presentation feedback system for enhancing presentation skills*. Paper presented at the In Proceedings of the 26th ACM Conference on User Modeling, Adaptation and Personalization.

Starkey, L. (2020). A review of research exploring teacher preparation for the digital age. *Cambridge Journal of Education*, *50*(1), 37-56. https://doi.org/10.26686/wgtn.13316057.v1

Sukardi, S. (2017). The role of local wisdom in maintaining the cultural identity of the people of Kaili Ethnic, Central Sulawesi, Indonesia. *KnE Social Sciences*, *3*(6), 499-508.

Suryanto, S., Yuliana, F., & Raharjo, S. T. (2018). Integration of local wisdom in the teaching of English for specific purposes: EFL students' perspectives. *International Journal of Language Education*, *2*(1), 27-40.

Tsekleves, E., Darby, A., & Whicher, A. (2020). Designing for synchronous remote learning: The iTEC (Innovative Technologies for Engaging Classrooms) project. *Journal of Universal Computer Science*, *26*(1), 107-130.

Turan, Z. H., Balaban-Sali, J., Yılmaz-Soğan, B., & Temur, T. (2019). Examining synchronous online teaching and learning experiences: A mixed-methods study. *Interactive Learning Environments*, *27*(8), 1014-1031.

Vingerhoets, A. J., Bylsma, L. M., & Jovanovic, T. (2020). Facial expressions in emotion: Literature overview, new research trends, and controversies. *Emotion Review*, *12*(3), 191-203.

Wahid, N. (2002). Application of non-parametric tests in small-scale studies: A review. *Educational Research and Reviews*, *1*(4), 116-122.

Wang, X., & Chen, Y. (2020). Enhancing students' presentation skills through self-reflection and practice. *Journal of Teaching and Learning with Technology*, *9*(1), 16-32.

Wienold, J. (2020). Enacting credibility in virtual communication: Exploring the role of embodied practices. In M. Danet, S. C. Herring, & T. P. van Leeuwen (Eds.), International Handbook of Language and Social Interaction. In (pp. 575-596): Routledge. Retrieved from https://www.routledgehandbooks.com/citation?doi=10.4324/9781410611574.

Yuliana, F., Suryanto, S., & Irawati, S. (2021). Employability skills in English for specific purposes (ESP) programs in higher education. *Journal of English for Academic Purposes*, *49*, 100985.

Zanola, L. M. (2016). Gesture in language learning: Theoretical perspectives on its relationship with lexical retrieval, cognitive effort, and communicative effectiveness. *Language Teaching Research*, *20*(5), 631-650.