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Journal Policy

Found in 2023, BRU ELT Journal is a peer-reviewed and open-access electronic journal with the main aim to publish fully refereed high-quality original research articles in the field of English Language Teaching (ELT) around the world for the benefit of English language teachers and researchers. The journal welcomes articles from local and foreign academics, researchers, graduate students, and policymakers. All articles are required to be in English.

The Thai Journal Citation Index Center (TCI) requested cooperation from journal editors in the selection of a specific journal's sub-areas stored in the TCI database. As a result, each journal is permitted to select 1-5 sub-areas for the papers published in the journal. In this regard, the "BRU ELT JOURNAL" would like to declare that beginning with the 1st Volume, 1st Issue (January-April 2023), articles covering the main subject area, Social Sciences, will be accepted for publication. Furthermore, these articles must be pertinent to the subject areas of Arts and Humanities, and they must cover these two sub-subject areas: 1) Language and Linguistics, and 2) Literature and Literary Theory.

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The journal is published three times a year: January-April, May-August, and September-December. However, BRU ELT JOURNAL, with no more than two (2) issues per year, might be published as a special issue upon joining in the special academic events of national and international conferences held both in Thailand and other countries.

All articles in this journal must be reviewed by at least three (3) external peer reviewers in the relevant fields from different institutes. More importantly, the authors' and reviewers' identities are concealed from each other (Double-blind peer review) in order to have the articles with high quality and academic standards. The articles submitted for publication in this journal have not already been published *elsewhere* or are not under consideration by peer reviewers for publication in other journals. The authors must strictly comply with the reference system and the criteria for the publication of academic or research articles set by the journal.

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Improving Grade 12 SHS Students' Reading Skills through Technological Pedagogical and Content Knowledge (TPACK) and Teacher - Directed Instructions

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Abstract

Reading, a fundamental skill for both academic and personal development, can be hindered when students overly concentrate on decoding tasks such as identifying thesis statements, summarizing, and elucidating text-specific ideas. Addressing this, the study evaluated the effectiveness of Technological, Pedagogical, and Content Knowledge (TPACK) Instruction versus Teacher-Directed Instruction (TDI) in improving reading skills among Grade 12 students in one of the senior high schools in Kinoguitan, Misamis Oriental, Philippines. A quasi-experimental design was employed, involving 70 participants who were equally divided into two groups of 35. Thirty-five (35) students were exposed to TPACK (experimental group) and the other thirty-five students in teacher-directed instruction (control group). For data analysis, descriptive statistics and t-tests were utilized to ensure a thorough assessment of the outcomes. The findings revealed that TPACK emerged as more effective in enhancing overall reading skills for Grade 12 students. Interestingly, this trend was not consistent across all aspects of reading; in the specific skill of summarizing, the TDI group exhibited a slight improvement over the TPACK group. This suggests that while TPACK is generally more beneficial, TDI has its strengths in certain areas of reading. In conclusion, the study indicates that both TPACK Instruction and Teacher-Directed Instruction have their respective merits in the context of Senior High School (SHS) reading skill development. TPACK is more effective in increasing reading skills except for summarizing where both approaches are comparably effective. It advocates for a blended approach in educational strategies, integrating technological tools with effective teacher facilitation, to enhance student learning outcomes comprehensively. This approach underscores the importance of a multifaceted educational methodology in cultivating vital reading competencies among students

Keywords: TPACK, teacher-directed instruction, reading skills, SHS students

Introduction

Reading is essential for academic, professional, and personal development. Its significance in our evolving world is emphasized by Lee (2021), highlighting the critical role of robust reading skills. The link between proficient reading and academic success, along with improved cognitive functions, is well-documented, notably by Cunningham and Stanovich (2018). Erten (2018) underscores that excessive time spent on decoding activities like stating the thesis, summarizing, and explaining text-specific ideas often compromises reading comprehension, highlighting fluency's importance.

The growing disparity between proficient and less proficient readers as students progress through the educational system (Totto & Ramos, 2021) underscores the importance of basic literacy skills. This trend is particularly critical, as Hedgcock & Ferris (2018) point out, because reading is essential for academic success and daily life, especially for students. Furthermore, Duke et al. (2021) and Greenleaf et al. (2023) emphasize the necessity of strong reading skills for understanding complex materials and facilitating intellectual growth. On a related note, Ropero (2019), as cited by Idulog (2023), suggests that developing practical reading skills depends on access to diverse texts and instructional strategies. Comprehension of complex texts becomes increasingly crucial as students advance to higher grades (Basuki, 2018; Sulikhah et al., 2020). Additionally, Idulog et al. (2023) emphasize the importance of reading across all subjects, not just English classes (Ying et al., 2021).

Moreover, the Philippines faces significant educational challenges, as highlighted by its low performance in global assessments like the Programme for International Student Assessment (PISA), the Southeast Asia Primary Learning Metrics (SEA-PLM), and the Trends in International Mathematics and Science Study (TIMSS). PISA 2022 reading results show Filipino students improved despite their continued global lag. With an average score of 347, only 24% of responders met the required competency, ranking them 75th. Only a small percentage achieved advanced levels, suggesting challenges with complex texts. Despite progress, closing the reading gap is still crucial. In response, the Department of Education in the Philippines has developed initiatives like the "Every Child a Reader Program" (ECARP) and "Drop Everything and Read" (DEAR), which are yet to be assessed thoroughly.

Despite extensive literature, a distinct gap still needs to be in research targeting the integration of the Technological Pedagogical and Content Knowledge (TPACK) framework with Teacher-Directed Instruction to enhance reading proficiency in the Philippines. This study aims to explore this integration, as suggested by Joseph (2020) and Saunders (2020), and examine its effectiveness in improving Filipino learners' reading proficiency. The role of technology in education, highlighted by Irum, Bhatti, Mohammad, and Dilshad (2019), Winthrop et al. (2016), Joseph, Khan (2020), and others, will be considered. The TPACK model's applicability in language classrooms will be examined, referencing Lin et al. (2013), Ariani (2015), Ali (2018), Chai et al. (2013), and Oyanagi and Satake (2019).

Prompted by the findings of Decena (2021), this study, set in a public school in Misamis Oriental for the academic year 2023-24, sought to address reading challenges faced by grade twelve students. It will explore transformative solutions, assessing whether diverse reading strategies, including teacher-directed instruction and technology-enhanced personalized teaching such as TPACK, can significantly improve reading skills among Grade 12 Senior High School students.

Thus, this study examined the effect of teacher-directed instruction on reading comprehension drawing on insights from Smith (2021), Johnson et al. (2022), and Ab Rashid et al. (2021). Additionally, it will explore the integration of technology in language learning, an aspect underscored by the works of Nurdianingsih (2021), Sari and Ivada (2013), Slamecka and Boekaerts (2022), and Lam and Lawrence (2020), which is a crucial component of this research. Luu et al. (2021) pointed out how technology seamlessly enhanced language learning inside and outside the classroom. Chouthaiwale and Alkamel (2018) observed significant improvements in student performance using Information and Communication Technology (ICT). Studies such as those by Latief, Sriyanto, and Daryanto (2018) on cooperative learning and Gozukucuk and Gunbas (2020) on technology-based reading texts emphasized TPACK's benefits.

Research Objectives

This study examines the effectiveness of TPACK and teacher-directed instruction in improving the reading of grade 12 students. The research aims to answer several questions, including assessing participants' reading skills before and after the intervention, such as their ability to state the thesis statement, summarize, and explain specific ideas. Additionally, the study seeks to compare participants' reading skills in each group before and after the intervention and to determine if there is a significant difference in the reading skill increments between the two groups.

Methodology

This research employed a quasi-experimental research design method. It analyzed data collected from pre-test and post-test in both TPACK approach and teacher-directed instruction groups. These groups were identified prior to the implementation of the treatment before the course of the experimentation. Based on findings from a pre-test provided before the study and a post-test given after the experiment, these two reading approaches were used to improve the reading skills. A minimum of six weeks of instructional implementation was allotted for the experimentation and treatment of the study. These students are part of a heterogeneous group, with equal enrollees from both the ABM and HUMSS strands. TPACK was the intervention employed by the 35 students in the experimental group, with 12 males and 24 females. By contrast, the control group also used Teacher-Directed Instruction with 35 students, 20 males and 15 females. The researcher employed a set of forty-five comprehension questionnaires, adapted and modified from the SAT (Scholastic Assessment Test), to evaluate the reading skills of the study's participants. Both the TPACK and TDI groups underwent a pre-test and post-test assessment. Each questionnaire consisted of fifteen (15) questions, categorized into three distinct reading skills: identifying thesis statements, summarizing, and explaining specific ideas. The main goal was to evaluate the extent to which the targeted treatments that were applied had enhanced the reading abilities of each group. The researcher initially obtained the Lourdes College Ethics Committee's consent before beginning the study. The research began with a pretest to gauge both groups' beginning reading abilities after the Lourdes College Research Committee issued its certification, with the endorsement of the school's division superintendent from the division office. After putting the appropriate treatments into practice, a posttest followed this to gauge how well each group

performed on the reading skills. Descriptive statistics, a T-test for independent samples, and a T-test for paired samples were used in the study to assess how sound interventions improved reading skills among the Grade 12 students.

Results and Discussion

Problem 1. What is the participants' reading skills before and after the intervention in terms of stating thesis statement; summarizing; and explaining specific ideas?

A comprehensive overview of participants' reading skills, focusing on their abilities in identifying thesis statements, summarizing content, and explaining specific ideas. The mean score for TPACK Instruction participants rose from 4.85 (Below Average) to 8.80 (Average), signaling an enhancement in reading proficiency. Similarly, the Teacher-Directed Instruction group improved, with the mean score increasing from 4.89 (Below Average) to 8.25 (Average). This general trend of advancement from below-average to average performance indicates the success of both instructional methods in enhancing overall reading skills.

Table 1

Participants' Reading Skills

	TPACK INSTRUCTION						Teacher-Directed INSTRUCTION					
	Pretest			**Post-test**			**Pretest**			**Post-test**		
	M	Int	SD	M	Int	SD	M	Int	SD	M	Int	SD
Stating Thesis Statement	4.17	BA	1.12	**8.20**	A	1.26	4.09	BA	1.38	**7.34**	A	1.61
Summarizing	5.74	BA	1.20	**9.34**	A	1.35	5.40	BA	1.46	**8.91**	A	1.12
Explaining Specific Ideas	4.63	BA	1.31	**8.86**	A	1.40	5.17	BA	1.56	**7.34**	A	1.61
OVERALL	**4.85**	**BA**	**1.01**	**8.80**	**A**	**0.98**	**4.89**	**BA**	**1.23**	**8.25**	**A**	**1.27**

Legend:
O = Outstanding; AA = Above Average; A = Average BA = Below Average;
P = Poor

The study findings reveal that both TPACK and Teacher-Directed Instruction demonstrate improvements from the pretest to the post-test. The mean score for TPACK Instruction participants rose from 4.85 (*Below Average*) to 8.80 (*Average*), signaling an enhancement in reading proficiency. Similarly, the Teacher-Directed Instruction group improved, with the mean score increasing from 4.89 (*Below Average*) to 8.25 (*Average*). This general trend of advancement from *below-average* to *average* performance indicates the success of both instructional methods in enhancing overall reading skills.

Furthermore, the data reveals consistent improvements across all three evaluated aspects: Stating Thesis Statement, Summarizing, and Explaining Specific Ideas. For the Stating Thesis Statement, TPACK Instruction participants improved their mean score from 4.17 (*Below Average*) to 8.20 (*Average*). At the same time, the Teacher-Directed group saw a rise from 4.09 to 7.34 in their mean scores, both moving

from below-average to average proficiency. In the area of Summarizing, both groups demonstrated significant gains. TPACK Instruction's mean score increased from 5.74 to 9.34, and Teacher-Directed Instruction's score rose from 5.40 to 8.91, moving from *below average* to *average*.

Moreover, in Explaining Specific Ideas, both instructional methods again showed improvements. TPACK Instruction's mean score escalated from 4.63 (*Below Average*) to 8.86 (*Average*), and the Teacher-Directed Instruction's score increased from 5.17 to 7.34. These results underscore the usefulness of both instructional methods in enhancing specific reading skills.

This transition from *below average* to *average* in all areas for both TPACK Instruction and Teacher-Directed Instruction underscores an enhancement in reading skills, validating the success of these instructional strategies in improving reading proficiency among participants.

Problem 2. How do the participants in each group compare their reading skills before and after the interventions?

Ho1. There is no significant difference in the participants' reading skills before and after the interventions.

Table 2 presents the Result of the Test of Difference in the Participants' Reading Skills Levels before and after the Interventions.

For both groups, the overall scores demonstrate statistically significant improvements from the pre-test to the post-test. Specifically, the TPACK Instruction Group showed a rise in mean scores from 4.85 to 8.80, while the Teacher-Directed Instruction Group saw an increase from 4.89 to 8.25. These improvements were confirmed by very low p-values (<.000) and high effect sizes (Cohen's d), 3.59 for TPACK and 2.35 for Teacher-Directed Instruction. These values indicate not only statistical significance but also practical significance. Thus, the null hypothesis can be rejected.

Table 2

Result of the Test of Difference in the Participants' Reading Skills Levels before and after the Interventions

	TPACK INSTRUCTION GROUP					TEACHER-DIRECTED INSTRUCTION GROUP				
Reading Skills	**Pre-test**	**Post test**	**t**	**p**	**Cohen's d**	**Pretest**	**Posttest**	**t**	**p**	**Cohen's d**
Stating Thesis Statement	4.17	8.20	**15.26****	**.000**	*2.58*	4.09	7.34	**11.67****	**.000**	*1.97*
Summarizing	5.74	9.34	**15.72****	**.000**	*2.66*	5.40	8.91	**14.21****	**.000**	*2.40*
Explaining Specific Ideas	4.63	8.86	**15.54****	**.000**	*2.63*	5.17	7.34	**9.68****	**.000**	*1.64*
OVERALL	**4.85**	**8.80**	**21.26****	**.000**	***3.59***	**4.89**	**8.25**	**13.90****	**.000**	***2.35***

**significant at 0.01 level

Focusing on the TPACK Instruction Group, the results across individual categories, such as Stating Thesis statements, Summarizing, and Explaining Specific Ideas, further substantiate this trend. The pre-test to post-test improvements were statistically significant in each of these categories, as evidenced by low p-values. As measured by Cohen's d, the effect sizes were particularly notable. The effect sizes for Stating Thesis Statement, Summarizing, and Explaining Specific Ideas were 2.58, 2.66, and 2.63, respectively. These high effect sizes suggest that the intervention had a strong and meaningful effect on the participants' reading skills.

The recent research on TPACK (Technological Pedagogical Content Knowledge) instruction presents a coherent picture of its effectiveness in boosting educational competencies, particularly reading skills. Critical studies, such as those by Abu-Hardan et al. (2019), have specifically underscored the positive effects of TPACK on English as a Foreign Language (EFL) learners' reading abilities. Complementing these findings, research by Kim and Lee (2018), Miguel-Revilla et al. (2020), and Buss et al. (2018) extend the scope of TPACK's impact, indicating enhancements not just in reading skills but also in teachers' technological and pedagogical capabilities. This broader improvement is crucial, as it points to TPACK's role in a holistic educational strategy, benefiting various aspects of teaching and learning. The collective evidence from these studies confirms the substantial influence of TPACK Instruction in academic settings, emphasizing its potential in converting educational approaches and underscoring the need for further exploration into its application across diverse learning environments.

Similarly, the Teacher-Directed Instruction (TDI) Group significantly improved their reading skills across the same categories. The p-values were again well below the 0.01 threshold, reaffirming the statistical significance of the improvements. The effect sizes for the TDI Group were also substantial, though slightly lower than those for the TPACK Group. The effect sizes for Stating Thesis Statement, Summarizing, and Explaining Specific Ideas were 1.97, 2.40, and 1.64, respectively. These figures point to a significant and practical improvement in reading skills post-intervention, though the impact seems slightly less pronounced than that of the TPACK Group.

The Teacher-Directed Instruction (TDI) Group's significant improvements in reading skills underscore its effectiveness as an educational approach. This aligns with the findings of Hammond and Moore (2018), who investigated the impact of explicit instruction on teachers' professional development. Their study revealed that explicit instruction, which shares characteristics with TDI, positively affects educational outcomes, particularly in reading skill enhancement.

Overall, the TPACK Instruction and Teacher-Directed Instruction methodologies improved the reading abilities of participants. The compelling statistical evidence firmly confirms that the null hypothesis can be rejected, revealing advancements in reading proficiency following the intervention in both cohorts.

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Problem 3. Do the reading skill increments of the two groups significantly differ?
Ho2. The reading skills increments of the two groups do not significantly differ.

Table 3 presents the results of the increments in reading skills for participants in the TPACK Instruction Group and the Teacher-Directed Instruction Group. Notably, the TPACK group achieved an overall mean increment of 3.95, compared to 2.46 for the Teacher-Directed group. This notable mean-score disparity is statistically supported by an overall t-value of 2.71, surpassing the commonly accepted threshold for statistical significance in social science research. The p-value associated with the overall score is .010, which is considerably lower than the standard alpha level of 0.05 typically used in research. Such a p-value robustly indicates that the difference in reading skill increments between the two groups is statistically unlikely to result from random chance. Therefore, based on this data, the null hypothesis, which asserts that there are no significant differences in the reading skills increments between the two groups, can be rejected.

Additionally, the effect size, as indicated by Cohen's d, stands at 1.30. This magnitude of effect size is categorized as large, given that effect sizes are generally considered small around 0.2, medium around 0.5, and large at 0.8 or above. A large effect size like this emphasizes the statistical significance of the findings and highlights their educational importance. It underscores that the impact of the two instructional methods on reading skills is not just a statistical artifact but also bears substantial educational relevance, with the TPACK method demonstrating a more pronounced effect on reading skill enhancement.

Table 3
Result of the Test of Difference in the Reading Skills Increments

Reading Skills	TPACK INSTRUCTION GROUP		TEACHER-DIRECTED INSTRUCTION GROUP		t	p	Cohen's d
	M	**SD**	**M**	**SD**			
Stating Thesis Statement	4.03	1.56	3.26	1.65	**2.01***	**.049**	*0.48*
Summarizing	3.60	1.36	3.51	1.46	**.254**	**.800**	*0.61*
Explaining Specific Ideas	4.23	1.61	3.31	2.03	**2.09***	**.049**	*0.50*
OVERALL	3.95	1.10	2.46	1.48	**2.71***	**.010**	*1.30*

*significant at 0.05 level

The data reveals a distinct advantage for the TPACK group in the specific skill of Stating Thesis Statements. They exhibited a mean increment of 4.03, significantly higher than the 3.26 achieved by the Teacher-Directed group. This notable difference in performance is statistically validated by a t-value of 2.01 and a p-value of .049. Such findings suggest that the TPACK instructional method is particularly effective in enhancing students' ability to articulate thesis statements. This effectiveness

likely stems from TPACK's holistic approach, which synergizes technology, pedagogy, and content knowledge. This integrative strategy fosters an enriched learning environment that is especially conducive to developing complex cognitive skills, such as formulating thesis statements (Vasodavan, 2020; Walker, 2020; Yeh et al., 2021). In this environment, learners are better equipped to engage with and comprehend intricate concepts, thereby enhancing their capacity for critical thinking and coherent expression, as evidenced by their improved ability to state thesis statements (Wang, 2020; Katechaiyo, 2019).

In contrast, the skill of Summarizing displayed a different trend. The TPACK and Teacher-Directed groups demonstrated similar levels of improvement, contrasting the trends observed in other skills. The TPACK group registered a mean increment of 3.60, closely paralleled by the Teacher-Directed group with 3.51. The slight difference in these increments is further emphasized by a t-value of .254 and a p-value of .800, which collectively indicate no statistically significant difference in their effectiveness in teaching summarization. This equivalence in performance suggests that both the TPACK and Teacher-Directed instructional methods are comparably effective when it comes to teaching summarization skills. This observation leads to the inference that specific reading skills, like summarization, may be independent of the specificities of the instructional approach employed. Instead, these skills might be more universally developed across various teaching methods, hinting at their reliance on core teaching principles shared among different educational strategies.

Complementing this, recent research sheds light on the broader implications of the Technological Pedagogical Content Knowledge (TPACK) and Teacher-Directed Instruction (TDI) frameworks in education. Studies focusing on TPACK (Miguel-Revilla et al., 2020; Fathi & Yousefifard, 2019) highlight its success in enhancing aspects of teacher education, including integrating technology with pedagogical and content knowledge. This suggests that TPACK is particularly effective in merging technology with traditional teaching practices. Conversely, research on TDI (Ibrahim et al., 2020; Gess-Newsome et al., 2019) emphasizes its strengths in refining teaching strategies, course planning, and boosting student achievement. Characterized by structured, teacher-led activities, TDI also emerges as a robust method for imparting summarization skills. Thus, both TPACK and TDI, despite their distinct approaches, effectively teach critical educational skills like summarization, each contributing uniquely to the educational process.

In the skill of Explaining Specific Ideas, the performance of the TPACK group notably surpassed that of the Teacher-Directed group. The TPACK participants achieved a mean increment of 4.23, while the Teacher-Directed group reached 3.31. This distinction in performance is statistically significant, with a t-value of 2.09 and a p-value of .049, underscoring a meaningful difference in efficacy between the two instructional methods in this particular skill. The superior performance of the TPACK group in fostering the skill of explaining and elaborating on ideas may be attributed to the comprehensive nature of the TPACK framework. This framework effectively integrates technology with pedagogical strategies, enhancing the learners' capacity to comprehend and express complex concepts.

Supporting this observation, recent studies have emphasized the strengths of the TPACK approach in developing such cognitive and expressive abilities. For instance, a study by Koh (2019) demonstrated how TPACK's integration of technological tools and pedagogical techniques improves students' conceptual understanding and articulation skills. Similarly, research by Goradia (2018) highlighted the role of TPACK in promoting higher-order thinking skills, which are crucial for explaining complex ideas. These findings align with the observed success of the TPACK group in our analysis, suggesting that the TPACK methodology is particularly effective in nurturing advanced cognitive skills like explaining specific ideas.

Recommendations

The study recommends that reading teachers should integrate technology with traditional teaching methods, pursue continuous learning in tech-pedagogy-content integration, and employ diverse strategies like TPACK and Teacher-Directed Instruction to cater to different student needs. School administrators are advised to provide necessary technological resources, invest in teacher training programs for tech-pedagogy-content integration, regularly evaluate teaching methods, and update reading curriculums to promote interactive learning. Future researchers are encouraged to further investigate and refine TPACK and TDI methodologies, explore their impact on various reading skills components, and examine additional methods to enhance reading abilities.

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Intercultural Awareness: Bridging the Gap for Global Understanding of EFL Learners

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Abstract

In an increasingly globalized world, intercultural awareness plays a significant role in promoting effective communication, fostering understanding, and addressing societal challenges arising from cultural diversity. Therefore, the main goals of this mixed-methods study were to assess the level of current intercultural awareness of EFL learners and to examine the implications of intercultural awareness for effective communication and collaboration in multicultural settings. A sample of 73 EFL learners completed an intercultural awareness questionnaire, which was followed by semi-structured interviews with five EFL learners. They were selected by using the convenience sampling method. The results of the research were that 1) The EFL learners had a high level of intercultural awareness, and 2) Communication and collaboration with people from different cultures require intercultural awareness because it will help reduce conflict and work effectively. In addition, the study also found that EFL learners have a high intercultural attitude, intercultural skills, and intercultural knowledge. Moreover, it was found that EFL learners think that communicating with people of different cultures is not difficult if they know and understand that culture, but it is difficult when the culture is very different from one's own culture, such as language, lifestyle, food, and behavior.

Keywords: EFL learner, intercultural awareness, intercultural communication

Introduction

Intercultural awareness is a vital area of research that explores the dynamics of cross-cultural interactions and the development of cultural competence in individuals (Chen & Starosta, 1996). In an increasingly globalized world, intercultural awareness plays a significant role in promoting effective communication, fostering understanding, and addressing societal challenges arising from cultural diversity (Chen & Starosta, 1998, p. 29). This introduction provides an overview of the importance of intercultural awareness research and its implications for individuals, organizations, and societies (Byram, 1997).

Lack of intercultural awareness can lead to a number of problems. When people from different cultures interact with each other, they may have different expectations about how they communicate and behave. If they are not aware of these differences, they may misinterpret each other's actions and words, which can lead to conflict (Hall, 1959). For instance, the Southern Thai accent and speaking style are often perceived as harsh and lacking in tone. This can lead to misunderstandings and negative stereotypes, such as the belief that Southern Thais are blunt, rude, and disrespectful. However, it is important to remember that cultural differences can play a role in how communication is interpreted. By taking the time to understand different cultures, even when we disagree with them, we can make significant progress in conflict resolution and coexistence. Secondly, people who lack intercultural awareness may be more likely to stereotype and prejudice others from different cultures. This can lead to discrimination and exclusion (Bennett, 2019). Finally, people who lack intercultural awareness may find it difficult to build relationships and work effectively with people from other cultures. This can have a negative impact on their personal and professional lives (Thomas, 2004).

However, for people to have a positive attitude towards culture, they must choose to live in a good environment and society. This will lead to expressions of behavior that demonstrate respect and appreciation for one's own culture. It is a valuable skill that can help you to connect with people from all over the world, as well as being able to coexist between one's own culture and others (Le Breton, 2009).

Literature Review

1. Intercultural Communication

The term “intercultural communication (IC)” generally refers to dialogue between individuals from various cultural backgrounds (Porter & Samovar, 2023). More precisely, it refers to “symbolic exchange processes whereby individuals from two (or more) different cultural communities negotiate shared meaning in an interactive situation” (Ting-Toomey, 1999, p. 16).

2. Intercultural Awareness

Intercultural awareness conceptualizes intercultural knowledge and skills (such as tolerance, acceptance, and appreciation of diversity) needed to communicate effectively and avoid intercultural misunderstandings (Robins et al., 2002). That is, constructing knowledge about cultural and social diversity constitutes a very important element in nurturing individuals’ intercultural awareness (Hill et al., 2006). Byram (1997), gives a detailed account of intercultural awareness as part of a framework of intercultural communicative competence. The critical component of his framework is the importance of understanding the nature of cultural norms to reach an ability to evaluate practices and products in one's own and other cultures and countries (Guerriche, 2020). Dr. David Matsumoto, Professor of Psychology at San Francisco State University and a leading expert on intercultural communication, has said that “intercultural knowledge is essential for effective communication and collaboration in multicultural settings because it allows us to understand the different cultural norms and values” (Matsumoto, 1990).

3. Intercultural Competence

Drawing on the range of research that has been conducted in this field, and the numerous conceptual models that have been proposed, Barrett (2011) identified the cores of intercultural competence as follows:

Attitudes: respect for other cultures; curiosity about other cultures; willingness to learn about other cultures; openness to people from other cultures; willingness to suspend judgment; willingness to tolerate ambiguity; and valuing cultural diversity.

Skills: skills of listening to people from other cultures; skills of interacting with people from other cultures; skills of adapting to other cultural environments; linguistic, sociolinguistic and discourse skills, including skills in managing breakdowns in communication; skills in mediating intercultural exchanges; skills in discovering information about other cultures; skills of interpreting cultures and relating cultures to one another; empathy; multi perspectivity; cognitive flexibility; and skills in critically evaluating cultural perspectives, practices and products, including those of one's own culture.

Knowledge: cultural self-awareness: communicative awareness, especially of the different linguistic and communicative conventions within different cultures; culture-specific knowledge, especially knowledge of the perspectives, practices, and products of particular cultural groups; and general cultural knowledge, especially knowledge of processes of cultural, societal, and individual interaction.

Research Objectives

1. To assess the level of current intercultural awareness of the EFL learners
2. To examine the implications of intercultural awareness for effective communication and collaboration in multicultural settings

Methodology

1. Samples

This study surveyed 73 third-year students in English Program, Faculty of Humanities and Social Sciences, Buriram Rajabhat University. They were selected by using the table of Krejcie and Morgan (1978), and convenience sampling method. Semi-structured interviews were conducted with five students (three females and two males) by purposive sampling method.

2. The Research Instruments

The research instruments in this study were: quantitative and qualitative methods.

2.1 Quantitative Methods

This study employs a quantitative methodology to assess the EFL learners' current intercultural awareness level. The questionnaire contains both closed- and open-ended questions, as well as a five-point Likert scale used as follows: 5 means Strongly Agree, 4 means Agree, 3 means Uncertain, 2 means Disagree, and 1 means Strongly disagree. The questionnaire was created from theories and principles from documents, articles, and related literature to serve as a guideline in questionnaire creation.

The 23-item questionnaire form total scores from the three experts were 0.95 and tryout with fourth-year students a total of 20 students with the reliability of Conbach’s Alpha, and the result of the questionnaire was 0.91.

2.2 Qualitative Methods

The researchers conducted interviews with five third-year students using a semi-structured interview form total IOC from the three experts was 1.00. Among the circumstances that favor qualitative research are the following: 1) Intercultural communication, 2) Cultural adjustment, and 3) Intercultural awareness.

Research Design

This research was a mixed method. Researchers administered the questionnaire and semi-structured interview, which served as the research instruments for this study. After the samples had completed the questionnaire and semi-structured interview, the researchers double-checked the completion of the answers and met experts.

Data Collection

The researchers conducted the investigation between the 1st till 7th of August 2020, and then the data were conducted.

Data Analysis

1. The Quantitative Data Analysis

A statistical package computer program was used to analyze the quantitative data from the questionnaire. Each section's data was analyzed as follows:

Part 1: General information. This part contains questions about gender. The data were analyzed by the computer program in order to find percentages.

Part 2: The intercultural awareness questionnaire involves intercultural knowledge, intercultural skills, and intercultural attitudes. This section contains closed-ended queries using a 5-point Likert scale. The computer program had been used to analyze ordinal data in order to calculate the mean (*M*), and standard deviation (*S.D.).* As shown in Table 1, the mean (average) score for each item was interpreted as the level of intercultural awareness.

Table 1

Comparison of Level of Intercultural Awareness and Mean

Level of Intercultural Awareness Mean	Mean
Highest	4.50 – 5.00
High	3.50 – 4.49
Moderate	2.50 – 3.49
Low	1.50 – 2.49
Lowest	1.00 – 1.49

2. The Qualitative Data Analysis

Semi-structured interviews analyzed data by taking data from notes, observations, and audio recordings obtained from interviews to analyze in the form of descriptive analysis. The researchers chose to use content analysis to link them into articles.

Results

1. Quantitative Part

1.1 General Information of Samples

Table 2

General Information

General Information	Frequency	Percentage
Gender		
Male	9	12.33
Female	64	87.67
Total	**73**	**100**

From Table 2, the finding showed that most of the samples were female 64 students (87.67%) and male 9 students (12.33%), respectively.

1.2 Intercultural Awareness

Intercultural awareness includes the cognitive perspectives of intercultural competence. Intercultural awareness is the foundation of intercultural competence. Without intercultural awareness, it is difficult to develop the skills and knowledge necessary to function effectively in intercultural settings. The researcher has adapted Deardorff's' (2006) intercultural competence model in this research as follows: knowledge, skills, and attitudes.

1.2.1 Intercultural Knowledge

Intercultural knowledge involves knowledge of different cultures such as history, values, beliefs, traditions, and norms.

Table 3

Intercultural Knowledge of EFL Learners

Intercultural knowledge	$\bar{x}$	*S.D.*	Meaning
1. I know the rules for expressing non-verbal behaviours in some different cultures.	3.71	0.87	High
2. I know the customs of the holidays or special days of other cultures.	3.92	0.97	High

Table 3 *(Continued)*

Intercultural knowledge	$\bar{x}$	*S.D.*	Meaning
3. I know that intercultural awareness is important for success in today's globalized world.	4.26	0.85	High
4. I know that intercultural awareness is a lifelong journey.	4.15	0.98	High
5. I know that intercultural awareness can help create peace and harmony.	4.34	0.82	High
6. I am aware of the different ways that people from different cultures express emotions.	4.19	0.83	High
7. I am aware of the various ways that individuals from various cultures demonstrate respect.	4.30	0.78	High
Total	**4.13**	**0.54**	**High**

From Table 3, the finding showed that intercultural knowledge was at a high level (*M* = 4.13, *S.D.* = 0.54). When considering each item, EFL Learners had the most intercultural knowledge were "I know that intercultural awareness can help create peace and harmony." (*M* = 4.34, *S.D.* = 0.82), Followed by "I know that intercultural awareness is a lifelong journey." (*M* = 4.15, *S.D.* = 0.98), and "I know the rules for expressing non-verbal behaviors in some different cultures." (*M* = 3.71, *S.D.* = 0.87), respectively.

1.2.2 Intercultural Skills

Intercultural skills include interaction, empathy, and adaptability.

Table 4
Intercultural Skills of EFL Learners

Intercultural Skills	$\bar{x}$	*S.D.*	Meaning
8. I am able to adapt my behaviour to different cultural contexts.	4.14	0.90	High
9. I am able to communicate effectively with people from different cultures.	3.96	0.98	High
10. I am able to build relationships with people from different cultures.	4.00	0.91	High
11. I avoid displaying behaviours that may pave the way for misunderstandings while interacting with people coming from different cultures.	4.22	0.82	High

Table 4 *(Continued)*

Intercultural Skills	$\bar{x}$	*S.D.*	Meaning
12. I distinguish differences between my own culture and other cultures.	4.05	0.80	High
13. I try to learn about their cultures while interacting with people coming from different cultures.	4.10	0.82	High
14. I avoid generalizing behaviours or attitudes of one person in a group to others.	4.10	0.97	High
Total	**4.08**	**0.61**	**High**

From Table 4, the findings showed that intercultural skills were at a high level (*M* = 4.08, *S.D.* = 0.61). When considering each item, EFL learners had the most intercultural skills were "I avoid displaying behaviors that may pave the way for misunderstandings while interacting with people coming from different cultures." (*M* = 4.22, *S.D.* = 0.82), followed by "I try to learn about their cultures while interacting with people coming from different cultures." (*M* = 4.10, *S.D.* = 0.82), and "I am able to communicate effectively with people from different cultures." (*M* = 3.96, *S.D.* = 0.98), respectively.

1.2.3 Intercultural Attitudes

Attitudes include respect, curiosity, and openness.

Table 5
Intercultural Attitude of EFL Learners

Intercultural Attitude	$\bar{x}$	*S.D.*	Meaning
15. I am open to the ideas of people coming from different cultures.	4.11	0.87	High
16. I am open to make friends with folks from other cultures	4.19	0.86	High
17. I am happy to change my own cultural ideas with others.	4.23	0.94	High
18. I tolerate unusual behaviours of people coming from different countries.	3.55	1.14	High
19. I respect beliefs of people coming from different cultures.	4.26	0.83	High

Table 5 *(Continued)*

Intercultural Attitude	$\bar{x}$	*S.D.*	Meaning
20. I respect values of people coming from different cultures.	4.18	0.95	High
21. I respect other cultures' festivals and celebrations and appreciate their unique traditions.	4.15	0.89	High
22. I accept the differences between my culture and other cultures.	4.32	0.74	High
23. I am interested in learning about different cultures.	4.23	0.87	High
Total	**4.14**	**0.59**	**High**

From Table 5, the findings showed that intercultural attitudes were at a High level (*M* = 4.14, *S.D.* = 0.59). When considering each item, EFL learners had the most intercultural attitudes were "I accept the differences between my culture and other cultures." (*M* = 4.32, *S.D.* = 0.74), followed by "I am able to adapt my behavior to different cultural contexts." (*M* = 4.10, *S.D.* = 0.90), and "I tolerate unusual behaviours of people coming from different countries." (*M* = 3.55, *S.D.* = 1.14), respectively.

1.2.4 Intercultural Awareness

Intercultural knowledge, skills, and attitudes of third-year EFL learners in the English Program at the Faculty of Humanities and Social Sciences, Buriram Rajabhat University.

Table 6
Summary of Intercultural Awareness in Three Categories

Intercultural Awareness	*M*	*S.D.*	Meaning
1. Knowledge	4.13	0.54	High
2. Skills	4.08	0.61	High
3. Attitudes	4.14	0.59	High
Total	**4.12**	**0.58**	**High**

From Table 6, the findings showed that the overall mean of intercultural awareness of EFL learners in this research was at the level of high (*M* = 4.12, *S.D* = 0.58). When considering each item, the results showed that EFL students had the highest intercultural attitude (*M* = 4.14, *S.D* = 0.61), followed by intercultural knowledge (*M* = 4.13, *S.D.* = 0.54) and intercultural skills (*M* = 4.08, *S.D* = 0.61), respectively.

2. Qualitative Part

The qualitative data was collected from the samples which were classified into three categories:

1. Intercultural Communication

It was found that EFL learners think that communicating with people of different cultures is not difficult if they know and understand that culture, but it is difficult when the culture is very different from one's own culture, such as language, lifestyle, food, and behavior.

2. Cultural Adjustment

It was found that most EFL learners feel excited when going to unfamiliar places. On the other hand, some people feel uncomfortable, but they try to adapt to that culture.

3. Intercultural Awareness

It was found that EFL students think that intercultural awareness is important because it helps reduce conflicts, work effectively with others, and live together peacefully in society.

Discussion

The results indicate that EFL learners have a high level of intercultural awareness, which is consistent with Uruporn's (2018) research on Factors Affecting the Cultural Awareness of Undergraduate students, Kasetsart University Kamphaeng Sean Campus. The results showed that undergraduate students also had a high level of cultural awareness. However, there are some areas where they could improve, such as their knowledge of non-verbal behaviors in different cultures and their ability to communicate effectively with people from different cultures.

One of the most notable findings is that EFL learners have a strong positive attitude towards intercultural awareness. They understand the importance of intercultural awareness for success in today's globalized world and they are interested in learning about different cultures. This is a positive sign, as it suggests that EFL learners are motivated to develop their intercultural skills. The data obtained in this study were quite similar to those of Marissa's study (2019) which investigated students' attitudes toward their intercultural learning experience to develop intercultural awareness in an English language classroom. The results showed that the participants had highly positive attitudes toward their intercultural learning experience in various aspects.

Another positive finding is that EFL learners have a good understanding of intercultural knowledge. They are aware of the various ways that individuals from different cultures demonstrate respect and they know that intercultural awareness can help create peace and harmony. This knowledge is essential for effective communication and collaboration in multicultural settings which is consistent with Matsumoto's (1990) statement that "intercultural knowledge is essential for effective communication and collaboration in multicultural settings because it allows us to understand the different cultural norms and values".

Overall, the research data on the intercultural awareness of EFL learners, they have a high level of intercultural awareness, and they are motivated to develop their intercultural skills. However, there are some areas where they could improve, such as their knowledge of non-verbal behaviors in different cultures and their ability to communicate effectively with people from different cultures.

Recommendations

1. Implications

First, establish a secure and encouraging environment. EFL learners should feel comfortable expressing themselves and inquiring about different cultures. Secondly, it is important to provide EFL learners with opportunities to practice their intercultural skills in authentic contexts. This could entail participation in cross-cultural exchange programs, collaboration with multicultural teams, or simply interaction with people from different cultures in their everyday lives. Lastly, it is imperative to demonstrate patience and understanding when communicating with individuals from diverse cultural backgrounds. By exhibiting tolerance and empathy for people of different cultures, people can facilitate the creation of a more inclusive and productive environment for all.

2. Further Studies

First, it suggests that researchers should continue to explore the various factors that contribute to the development of intercultural awareness in EFL learners. This could include factors such as language learning motivation, exposure to different cultures, and intercultural communicative competence.

Second, researchers should investigate ways to help EFL learners improve their knowledge of non-verbal behaviors in different cultures and their ability to communicate effectively with people from different cultures. This could involve developing new teaching and learning materials and providing opportunities for EFL learners to interact with people from different cultures.

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Remediating Technical Vocational Livelihood (TVL) Students' Oral Communication Skills Using Active and Didactic Learning Approaches

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Abstract

The ability to successfully convey information and ideas through spoken words, tone of voice, and non-verbal clues like body language is referred to as oral communication skills. The purpose of oral communication is to assist students in comprehending the characteristics and dynamics of various speaking contexts. In order to investigate the efficacy of didactic learning and active learning approaches in enhancing Grade 11 oral communication skills performance in a National Comprehensive High School in the Division of Misamis Oriental during the academic year 2023-2024, this research used a quasi-experimental design. Two (2) participant groups in the study: the first group, consisting of 34 students, was exposed to active learning, and the second group, also consisting of 34 students, was exposed to the didactic learning approach. The participants in the Active Learning Group has the mean equivalent to "fair" level while in the sub skills, comprehension, fluency, pronunciation, and grammar has the same mean level which is on the "fair" level and improved their performance in most sub-skills in Oral Communication from "fair" to "good" level, except for fluency, where they remained at the "fair" level. Furthermore, in terms of the test of difference, significant difference posted by the pre-test and post-test scores of the students in terms of their oral communication skills using the didactic learning approach is minimal in terms of its effects on their overall application and utilization of their oral communication skills in real life situations. In terms of Increment, there is a significant difference posted by the pre-test and post-test scores of the students in terms of their oral communication skills using the active learning approach. In terms of increment results, it can be inferred that the Active Learning Approach is more effective than the didactic Learning approach based on their means score. This implies that students become active knowledge creators when teachers implement an active learning approach in the classroom.

Keywords: oral communication, active learning approach, didactic learning

Introduction

Oral communication ability has become crucial in the Philippines, a resource that can help someone succeed in their academic endeavors because involvement in classrooms typically uses English as the primary medium of educational method. Oral communication, which includes formal and informal contacts, is the process of exchanging information and conveying meaning through spoken language. English classes aim to improve students' ability to use English correctly and effectively in such situations. Although schools and other organizations have made attempts, there are still learners who need help to develop their proficiency and accuracy in using the English language.

Oral communication is the ability to engage in verbal discussions and exchange information through presentations. These skills are necessary for effective teaching (Jaca et al., 2020). Moreover, Pratiwi et al. (2020) stated that the curriculum is the foundation for the English teaching and learning process in senior high school.

It is the priority of the Department of Education (DepEd) that pupils acquire the English language in its entirety. The goal of Language Arts in grades K–12 and a multiple literacies curriculum is to produce graduates who can use the language conventions, ideas, tactics, and understanding and learn other content areas and fending for themselves in whatever field of endeavor they may engage in (DepEd, 2016). In order to address the current issue, the Department of Education integrated the K-12 curriculum, which emphasizes communication instruction and includes oral communication as a topic in context to expose students to a variety of speaking exercises and strategies that will help them become proficient communicators. The majority of the tasks that students complete in this course involve speaking, and having conversations is a significant component of those tasks. To perform well in the various oral communication tasks, students should possess sufficient conversational skills.

As an oral communication subject teacher, the researcher noticed that the learners found it difficult to participate in conversations or discussions utilizing English; when expressing their thoughts in the lesson, students more frequently just utilized Cebuano -the Visayan language. Due to their weak oral communication abilities, students frequently need to improve in their classes. When asked a question, they need help responding in clear, conversational English, and engaging in conversation with them becomes even more difficult. This finding was further supported by a study by Candilas (2016) found that a number of factors could be to blame for current oral communication difficulties, particularly in the Philippines.It revealed that many Filipino college students still need help with their English language proficiency, particularly regarding recitations, reports, oral presentations, and everyday conversations. According to Lucanus (2017), effective oral communication is the process of exchanging knowledge, thoughts, opinions, and ideas so that a specific message is conveyed, received, and understood clearly and purposefully. Also, in the English classroom, students must exhibit analytical and critical thinking abilities in their written or spoken responses. Due to this, the researcher found the need to conduct the study since the speaking problem was predominantly observed in the school. This problem has to be addressed to realize the goal and importance of English Language Teaching (ELT).

Framework

This study assumes that Active Learning and Didactic Learning Approaches help enhance the Oral Communication Skills of Grade 11 TVL students. This assumption is supported by the theories of Lev Vygotsky, zone of proximal development (1997), Jean Piaget's constructivism (1993), and Martin Bygate's theory on speaking (1972).

Vygotsky's Zone of Proximal Development Theory, developed by Vygotsky, focuses on the differences between what a learner can accomplish on their own and with assistance from another person. Through a technique known as "Vygotsky scaffolding," a teacher or another capable student assists a student who is within their zone of potential. When the student and teacher start working together, the teacher demonstrates the majority of the work and explains the steps involved in order to aid the student in understanding the material. The teacher's help decreases as the student gains more familiarity with the subject matter and performs more work independently. The scaffolding keeps getting smaller until the student has mastered the material and no longer needs scaffolding. In this study, the theory explains that when a teacher uses questioning methods, those questions are not just for assessing students' knowledge. Effective, engaging, and sufficiently difficult questions foster group discussion and motivate students to delve deeper into and improve their comprehension of essential ideas.

Furthermore, this study is also anchored on the Constructivism Theory of Jean Piaget. Driscoll (2005) states, "Learners construct knowledge as they attempt to make sense of their experiences." Constructivists emphasize that firsthand experience is required in order to acquire knowledge. Additionally, they emphasize that understanding information requires knowledge derived from experience (Thompson, 2018). In constructivist learning, the learning process is more significant than the products of learning (Amineh et al., 2015). The constructivist method argues that information should be improved so students can use it effectively. It is, therefore, crucial to be an active learner, a lifelong learner, to absorb the intended instruction.

On the other hand, this study is also supported by the theory of Martin Bygate on speaking (1972), which state that to accomplish speaking as means of communication there are two thinks to think about. Knowledge is the first language, and the other is the application of skill in this vocabulary. It is insufficient to just know something of the language, but an individual who speaks it ought to be adaptable to a variety of circumstances. Speaking, according to Widdowson (2017), is the active use of oral production skills. It is the capacity for oral communication using all four of the major language skills. For students to speak English fluently, they must be able to competent to use the proper stress, pronounce phonemes correctly, and intonation patterns and communicate in coherent sentences. However, there is more to better than that. English speakers, particularly in places where it is widely spoken, will need to be capable of speaking in a variety of contexts and genres, and they'll need to be proficient in a variety of conversational and repair techniques for conversations. They'll have to have the ability to endure in normal function trade-offs as well. However, "speaking fluently require more than just knowledge but both the knowledge of linguistic elements and the capacity to interpret language "on the spot" (Harmer, 2017). In order to speak more boldly and fluently, there are six key components that are thought to be helpful. The key components are sounding natural, projecting our intended message, finding the

right words, speaking with assurance, and speaking fluently and accurately. Learning engagement and retention are goals of language classrooms. Essential elements of the curriculum are the instructional tasks, hold a central place in the learning process within the language learning environment (Ellis, 2018). Speaking is a very important part of people's daily lives, even though it is often taken for granted. Speaking is the "par excellence" mode of social cohesion, professional success, and business, according to Bygate (1987). People are most often judged by the words they use. Furthermore, speaking is a method used to acquire a lot of languages, including English. Speaking is more than just pronouncing words in the right order. If a speaker can effectively convey his ideas and help his audience understand him, then they are considered good speakers. Students will have a communicative purpose in addition to a desire to communicate wherein the pupils are engaged in repetition or a drill. They were inspired by the necessity of achieving the accuracy target. The language's structure is the main focus. In order to accomplish the goal, a teacher should be involved in developing the teaching procedures. Mastering the four skills is essential to learning any foreign language. The four oral skills speaking, listening, and listening-are thought to be related to language that is expressed audibly.

The independent variables in this study are Active Learning and Didactic Learning Approaches. Active learning approaches encourage students to participate in their education by pondering, debating, exploring, and producing. During class, students work on skills, solve problems, struggle with difficult questions, make decisions, offer solutions, and use writing and discussion to explain concepts in their own words. For this learning process to be successful, prompt feedback from the teacher or other students is essential (Theobald et al., 2020).

Consequently, didactic strategies refer to the collection of created tasks that are considered, as a general norm of input, not only students' comprehension of concepts but also the reciprocal relationship between particular information and a given activity. As strategies are implemented in English teaching, the professor searches for a collaborative project. When students work in a collaborative group, they assign tasks to each other and build knowledge collaboratively (Navarro & Piñeiro, 2012). Cruz (2017) states that didactic approaches to second language acquisition are essential for triggering learners' empowerment. They pursue successful learning outcomes and meaningful learning through games that help them build their knowledge.

Research Objectives

This study aims to determine the impact of active and didactic learning approaches on enhancing the Oral Communication Skills of Technical Vocational Livelihood students enrolled in a public comprehensive High School in the Division of Misamis Oriental.

Research Questions:

This study sought to determine TVL Students Oral Communication Skills through Active and Didactic Learning approaches.

Specifically, this study sought to answer the following questions:

1. What is the difference in the two participant groups' oral communication skills before and after the intervention taking into account:

1.1 comprehension;

1.2 fluency;
1.3 vocabulary;
1.4 pronunciation
1.5 grammar?

2. How does the oral communication proficiency of each group's members compare before and after the intervention?

3. How do the two groups of participants compare in their level of Oral Communication Skills Increment?

Methodology

This study used a quasi-experimental design and examined the effect of the Active Learning Approach and Didactic Learning Approach in enhancing oral communication skills. Abraham and MacDonald (2018) state that quasi-experimental research is similar to experimental research, but it is often performed in cases where a control group cannot be created or random selection cannot be performed. Similarly, Thomas (2023) stated that quasi-experimental design aims to link an independent and dependent variable in a cause-and-effect manner. A quasi-experimental design is helpful when actual experiments cannot be conducted for moral or practical reasons. This study's decision to use a quasi-experimental design is justified because it will allow researchers to assess how well the Active learning and Didactic Learning Approaches affect the target students' oral communication abilities. A pre-test and post-test in speaking skills were administered to measure the Senior High School TVL students' Oral Communication Skills. The instrument used in assessing students' English communication skills was the Student Oral Observation Matrix (SOLOM) adapted from the study of Candilas (2015). The Student Oral Language Observation Matrix (SOLOM) is an informal rating tool used to assess students' command of oral language based on what teachers observe continually. The SOLOM is not a test but a rating scale that assessor can use to rate and monitor students' oral language proficiency. The SOLOM was used to group and regroup students for instruction and to identify instructional and curricular areas needing more attention. The researcher used the following statistical tools to organize the data. For Problem 1, descriptive statistics such as percentage, mean, frequency distribution, and standard deviation was used. For Problem 2, a T-test for paired samples was used to show the significant differences in the participants' oral communication skills performance before and after the interventions. Finally, for Problem 3, a T-test for independent samples was used to see significant differences in the score increments of the oral communication skills of the two groups of participants.

Results and Discussion

The data collected from the study participants is analyzed and interpreted in this section. The data is displayed by the researcher in tables along with an explanation and ramifications.

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Table 1
Participants' Oral Communication Skills before and after the Interventions

Oral Communication Skills Performance Test	ACTIVE LEARNING GROUP				DIDACTIC LEARNING GROUP			
	Pretest		Posttest		Pretest		Posttest	
	M	Inter	M	Inter	M	Inter	M	Inter
Comprehension	2.51	G	3.19	G	3.06	G	3.18	G
Fluency	2.41	F	2.51	G	2.99	G	3.06	G
Vocabulary	2.28	F	3.47	G	3.06	G	3.28	G
Pronunciation	2.49	F	3.49	G	2.81	G	3.31	G
Grammar	2.24	F	3.60	VG	2.94	G	3.31	G
Total	**11.93**		**16.26**		**14.86**		**16.14**	
Mean	**2.39**		**3.25**		**2.97**		**3.23**	
Interpretation	**Fair**		**Good**		**Good**		**Good**	

Legend: Ad- Advanced: 4.51-5.0 O –Outstanding: 3.51-4.50 VG – Very Good: 2.51-3.50 G- Good: 1.51-2.50 F- Fair: 1.0-1.50 P: Poor

Table 1 presents the summary of the participant's Oral Communication Skills before and after the intervention. As we can see in the table, the active learning approach in the pretest had the mean of 2.39 equivalent to "fair" level, while in the sub skills, comprehension, fluency, pronunciation and grammar had the same mean level which is on the "fair" level during the pretest while in the didactic learning approach comprehension also had the mean of 2.97 and fluency, vocabulary, pronunciation and grammar also in the "good " level, the same with the active learning approach group which we can infer that both of the participants in the study has the same level before the conduct of the study. Meanwhile in the post test grammar in both of the approaches had the highest mean of 3.23 which is on the "good" level while comprehension, fluency, vocabulary and pronunciation is on the "good" level. This can be interpreted that both of the approaches have the same effect on the improvement of oral communication skills of participants. Thus, it can be utilized in providing interventions for the students especially those that have low oral communication skills. This is in line with the findings of Silva (2018) that teachers should use a wider range of techniques to promote communication in the classroom, as students prefer interactive tasks, and not merely to one unitary routine. The results also align with the research conducted by Asratie et al. (2023), who similarly employed a pre-test in their investigation. According to their research, students who received their instruction in an active and didactic structured activities performed better when speaking in class than those who received not using the approaches mentioned. They discovered that the students who are exposed to active learning learn were more proficient in pronunciation, had a wider vocabulary, spoke clearly, coherently, and accurately. Additionally, the students exposed to didactic learning also showed same improvement. As a result, the study suggests that scholars, educators, and learners adopt these strategies.

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Table 2
Test of Difference in the Participants' Oral Communication Skills before and after the Interventions

Oral Communication Skills	ACTIVE LEARNING APPROACH GROUP				Effect Size	DIDACTIC LEARNING APPROACH GROUP				Effect Size
	Pre Test	**Post Test**	**t**	**p**		**Pre Test**	**Post Test**	**t**	**p**	
Comprehension	2.52	3.20	6.42**	.000	-1.1	3.06	3.18	-.903	.373	-.156
Fluency	2.41	2.52	-.890	.334	-168	2.99	3.06	.842	.406	-.144
Vocabulary	2.28	3.47	-8.41**	.000	-.1.44	3.06	3.28	1.97	.058	-.388
Pronunciation	2.49	3.49	6.70**	.000	-1.15	2.81	3.31	3.42**	.002	-.586
Grammar	2.24	3.60	8.79**	.000	-1.51	2.94	3.31	2.85**	.007	-.489
OVERALL	**2.39**	**3.25**	**9.12**	**.000**	**-1.56**	**2.97**	**3.23**	**2.99****	**.005**	**-507**

**significant at 0.01 level *significant at 0.05 level

Table 2 exhibits the Result of the Test of Difference in the Participants' Oral Communication Skills before and after the Interventions. For Active Learning Approach, it registered an overall computed t-value of 9.12 with computed p-value of 0.00. The computed p-value is less than the t-critical value at 0.05 level of significance. This implies that significant difference between the students' pretest and posttest scores under active learning approach was registered. Thus, the null hypothesis is rejected. Moreover, Comprehension skills t-value is 6.42, p-value 0.00, Vocabulary skills t-value is -8.41, p-value of 0.000, pronunciation t-value is 6.70, p-value of 0.000, and Grammar t-value is 8.79, p-value of 0.00, showed significant difference indicating that these skills have made difference or important effects on the students overall oral communication skills performance. This means that in improving the students' performance and knowledge on their oral communication skills they must be given more attention on doing activities and exercises pertaining to comprehension, vocabulary, pronunciation and grammar.

Meanwhile, Fluency registered computed t-value of -.890 with computed p-value of 0.334. The computed p-value is greater that the p-critical value at 0.05 level of significance. This implies that no significant difference between the students' pretest and posttest scores under active learning approach was registered. Thus, the null hypothesis is accepted. This data implies that aspect of fluency in developing the students' oral communication skills has no bearing at all. Teachers may still provide activities that utilizes this approach as it form part of their overall oral communication skills development.

When considering the value of effect size, it registered an overall result of -1.56. This means that the significant difference posted by the pretest and posttest scores of the students in terms of their oral communication skills using the active learning approach is very minimal in terms of its effects on their overall application and utilization of their oral communication skills in real life situations. This only mean that the teachers must make innovation in utilizing and applying the active learning approach in improving the students' oral communication skills.

For Didactic Learning Approach, it registered an overall computed t-value of 2.99 with computed p-value of 0.005. The computed p-value is less than the t-critical value at 0.05 level of significance. This implies that significant difference between the students' pretest and posttest scores under didactic learning approach was registered. Thus, the null hypothesis is rejected. Moreover, pronunciation t-value is 3.42, and p-value of 0.002, and grammar t-value of 2.85, p-value of 0.007, showed significant difference indicating that these skills have made difference or important effects on the students overall oral communication skills performance. This means that in improving the students' performance and knowledge on their oral communication skills they must be given more attention on doing activities and exercises pertaining to pronunciation and grammar.

Meanwhile, comprehension t-value is -0.9-3, and p-value of 0.373, fluency t-value is 0.842, p-value of 0.406 and vocabulary t-value of 1.97, p-value of 0.058 registered computed p-value that is greater that the p-critical value at 0.05 level of significance. This implies that no significant difference between the students' pretest and posttest scores under didactic learning approach was registered. Thus, the null hypothesis is accepted. This data implies that aspect of comprehension, fluency and grammar in developing the students' oral communication skills has no bearing at all. Teachers may still provide activities that utilizes this approach as it form part of their overall oral communication skills development.

When considering the value of effect size, it registered an overall result of -0.507. This means that the significant difference posted by the pretest and posttest scores of the students in terms of their oral communication skills using the didactic learning approach is minimal in terms of its effects on their overall application and utilization of their oral communication skills in real life situations. This only mean that the teachers must make innovation in utilizing and applying the didactic learning approach in improving the students' oral communication skills. Similarly Ngoc (2021) concluded that in the classroom, students must be able to speak with confidence and in the right way; they must learn how to participate in class discussions in a constructive way. Low participations caused by lack of drive due to inadequate didactic materials to enhance their oral communication, they avoided making mistakes, interacted erratically, and the instructor's presence.

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Table 3
Test of Difference in the Two Groups of Participants' Oral Communication Skills Increment

Oral Communication	ACTIVE LEARNING APPROACH GROUP		DIDACTIC LEARNING APPROACH GROUP			Sig. (2-tailed)	Effect Sizes
	M	SD	M	SD	t		
Comprehension	.676	.614	.118	.759	3.34**	.001	.809
Fluency	.676	.614	.088	.764	3.50**	.001	.849
Vocabulary	.103	.613	.088	.500	.108	.914	.026
Pronunciation	1.19	.826	.250	.666	5.17**	.000	1.26
Grammar	1.0	.870	.485	.848	2.47*	.016	.599
Oral Communication	.1.37	.907	.444	.886	4.78**	.000	1.16
Overall	**.868**	**.555**	**.2556**	**.499**	**4.78****	**.000**	**1.16**

Significant at 0.01level

Table 3 exhibits the Result of the Test of Difference in the Two Groups Participants' Oral Communication Skills Increment. For both Approaches, they registered an overall computed t-value of 4.78** with computed p-value of .000. The computed p-value is less than the t-critical value at 0.01level of significance. This implies that significant difference between the students' pretest and posttest scores in terms of incremental scores under active learning approach are registered. Thus, the null hypothesis is rejected. Moreover, Comprehension skills t-value=3.34**, p-value=.001, Vocabulary skills t-value=.108, p-value=.914, pronunciation t-value=5.17**, p-value=.000, and Grammar t-value=2.47*, p-value=.000 showed significant difference indicating that these skills have made difference or important effects on the participant's overall oral communication skills performance.

This means that in improving the students' performance and knowledge on their oral communication skills they must be given more attention on doing activities and exercises pertaining to comprehension, vocabulary, pronunciation and grammar.

Conversely, vocabulary registered computed t-value of .108 with computed p-value of .914. The computed p-value is greater than the p-critical value at 0.01 level of significance. This implies that no significant difference between the students' pretest and posttest scores under active learning approach was registered. Thus, the null hypothesis is accepted. This data implies that aspect of fluency in developing the students' oral communication skills has no bearing at all in terms of vocabulary sub skills. Teachers may still provide activities that utilizes this approach as it forms part of their overall oral communication skills development.

For Didactic Learning Approach, it registered an overall computed t-value of .499 with computed p-value of .000. The computed p-value is less than the t-critical value at 0.01 level of significance. This implies that significant difference between the students' pretest and posttest scores under didactic learning approach are registered. Thus, the null hypothesis is rejected. This means that in improving the students' performance and knowledge on their oral communication skills they must be given

more attention on doing activities and exercises pertaining to pronunciation and grammar.

Meanwhile, when considering the value of effect size, it registered an overall result of 1.16. This means that the significant difference posted by the pretest and posttest scores of the students in terms of their oral communication skills using the didactic learning approach is average in terms of its effects on their overall application and utilization of their oral communication skills in real life situations. This only means that the teachers must make innovation in utilizing and applying the didactic learning approach in improving the students' oral communication skills to make it more effective and efficient.

Overall, in terms of using the approaches in group activities, Didactic approach is more effective compared to Active Learning approach based on their effect size value. This is normal as didactic learning approach is more applicable to due to its concept, that it is traditional in nature and some learners still often learn this way. In terms of increment results it can be inferred that Active Learning Approach is more effective than didactic Learning approach based on their means score. In active learning approach the students are given the chance to learn and acquire knowledge in oral communication individually and with peers. This further means that the students can apply their oral communication skills confidently even without the assistance or presence of their teacher.

The result is congruent with Fitri et al. (2022), who stated that the application of active Learning techniques is among the advantageous and stimulating methods to quickly make students speak up without fear and enhance their comprehension of the points of teaching. Samaddar et al. (2023), cited the two ways that active learning varies from the traditional teaching techniques in which the student's involvement in class and, secondly, their cooperation. Anwar (2019) said that activity-based learning increased students' motivation and academic achievement. Higher-order thinking skills are more successfully developed in students through activity-based learning.

Also, the researcher observed that in the intervention in both groups, students were motivated to participate in class discussions and activities when given tasks that caught their interest. Furthermore, the researcher also observed that the student's attention in both interventions differs; students in the Active Learning Approach mostly have longer attention spans than students in the Didactic Learning Approach. This is in connection with the study conducted by Brigs (2015), which stated that active learning methods may have 'dual benefits', engaging attention in one segment and refreshing attention in another segment.

Recommendations

Based on the study's findings and conclusions, the following recommendations are offered:

1. For English Teachers that they may:

1.1. Improve learning engagement and retention in in-person classes; through designing activities that can engage students' attention in class.

1.2 introduce to the students to didactic and active learning strategies.

1.3 Use this study as a guide to help students perform better in oral communication, especially in their chosen fields.

2. For School Administrators that they may:

2.1 Encourage all teachers to create lessons based on a didactic and active learning approach and give students a schedule that suits their needs; and

2.2 Include Active Learning Approach in In-service Training (INSET) as part of teacher development training.

3. For Future Researchers that they may:

3.1 use this paper as a reference to conduct additional research using the Active Learning Approach and Didactic Learning approach, particularly in Writing as another skill; and

3.2 Increase the duration of the research project and the intervention's execution to ascertain its efficacy

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Improving College Students' Metacognition through Self-Paced Learning and Direct Instruction in a Remote Learning Modality

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Abstract

Metacognition, the ability to effectively manage one's learning, plays a pivotal role in student success, particularly in remote learning environments where self-regulation is essential. This quasi-experimental study explored the impact of two instructional strategies-self-paced learning and direct instruction-on enhancing metacognitive skills among 100 college students. Fifty students participated in a self-paced learning intervention, while the other fifty received direct instruction, both over an eight-week period. Metacognitive skills, including planning, monitoring, and evaluating, were assessed before and after the interventions using a standardized inventory. The findings revealed significant improvements in metacognition for both groups; however, the self-paced learning group exhibited more substantial gains. A notable shift was observed in this group, with many students moving from "Low Metacognition" to "High Metacognition" categories, demonstrating larger effect sizes across all phases of metacognitive development compared to the direct instruction group. These results suggest that self-paced learning is particularly effective in enhancing metacognitive skills, likely due to its emphasis on student autonomy and self-directed learning. The study contributes valuable insights to the field of educational strategies, highlighting the potential of self-paced learning in fostering metacognitive growth, which is essential for academic success in remote learning contexts. The findings underscore the importance of adopting instructional approaches that not only impart knowledge but also cultivate students' ability to self-regulate and take ownership of their learning processes. Future research is encouraged to further explore the nuanced effects of different instructional methods on metacognition to better inform educational practices.

Keywords: metacognition, self-paced learning, direct instruction approach

Introduction

The purpose of this study is to investigate the effectiveness of Self-Paced Learning (SPL) and Direct Instruction Approach (DIA) in enhancing metacognition among college students engaged in remote learning. Metacognition, defined by Hao and Xie (2019) as the awareness and regulation of one's thinking processes, is crucial in remote education where learners face increased autonomy and limited interaction with instructors and peers. In such environments, students must develop strong

metacognitive skills to effectively navigate the complexities of learning without the constant guidance typical of traditional classrooms.

The transition to remote learning has introduced unprecedented challenges, particularly in fostering metacognitive abilities among students. The central research problem addressed in this study is the urgent need to support distance learners in developing and applying metacognitive strategies to succeed in remote education. Despite the flexibility and accessibility that remote learning offers, it poses unique hurdles for learners who may struggle with self-regulation and reflective practices.

Existing research has highlighted the importance of instructional approaches in developing metacognitive skills. For instance, Brown et al. (2020) demonstrated significant improvements in metacognition through self-paced learning strategies, providing a strong foundation for further investigation in remote settings. Conversely, Smith et al. (2018) found that while direct instruction improved certain academic outcomes, it had limited impact on metacognitive development. This gap in the literature underscores the need for alternative instructional approaches that specifically target metacognitive growth, particularly in remote learning contexts.

This study aims to fill this gap by comparing the effects of SPL and DIA on metacognition development among remote learners. Through a quasi-experimental design involving 100 college students, this research will explore how these instructional strategies influence metacognitive skills across planning, monitoring, and evaluating phases. By addressing potential criticisms associated with SPL and DIA and considering alternative explanations for observed outcomes, this study seeks to provide robust evidence on the effectiveness of these approaches.

The findings of this study will contribute to the growing body of literature on metacognition and offer valuable insights for educators and policymakers seeking to enhance remote learning practices. Furthermore, this research will pave the way for future studies exploring innovative instructional strategies aimed at promoting metacognitive development in various educational settings.

Research Objectives

This study aimed to enhance the metacognition of distance learners through Self-Paced Learning and Direct Instruction Approach. Specifically, it sought to answer the following questions:

1. What was the level of the participants' metacognition in terms of:
   1.1 planning;
   1.2 monitoring; and
   1.3 evaluating?
2. How did the students in each group compare their metacognition before and after the intervention?
3. Did the two groups of participants' metacognition increments significantly differ?

This study enhanced the understanding of how different instructional strategies-Self-Paced Learning (SPL) and Direct Instruction Approach (DIA)-impact the metacognitive skills of distance learners. By assessing participants' baseline levels of metacognition in planning, monitoring, and evaluating, the study identified key areas where remote learners required additional support. It then examined the effectiveness of SPL and DIA in improving these skills, comparing metacognitive growth before and

after the interventions. Finally, by analyzing whether the improvements in metacognition significantly differed between the two groups, the study provided valuable insights into the relative efficacy of these approaches. These contributions informed the design of instructional strategies aimed at more effectively supporting metacognitive development in remote learning environments.

Research Methodology

The study utilized a quasi-experimental design to evaluate the effectiveness of Self-Paced Learning (SPL) and Direct Instruction Approach (DIA) on enhancing metacognition among distance learners. This design was chosen because it allows for the assessment of interventions within a real educational context without random assignment, making it suitable for educational settings where randomization may not be feasible. The quasi-experimental approach enabled the researchers to observe and compare the effects of the interventions on participants' metacognitive skills while maintaining practical relevance.

Participants were selected from PHINMA Education Network's College of Education, specifically those enrolled in remote and distance learning programs. The selection criteria included enrollment in the Speech and Stage Arts classes within the Remote and Distance Learning program, ensuring that participants represented the target population of distance learners. A total of 100 students were involved, with 50 assigned to the SPL group and 50 to the DIA group.

The research instrument used to measure participants' metacognitive skills employed a Likert scale format, based on the work of Schraw and Moshman (1994). This instrument was adapted to capture attitudes and perceptions relevant to the study's focus. To ensure validity and reliability, the instrument underwent a validation process and pilot testing, incorporating feedback to refine the tool.

Ethical approval was obtained from the Lourdes College Research and Ethics Committee (REC), addressing considerations such as participant consent and data confidentiality. The study adhered to ethical guidelines throughout the research process.

Data collection spanned eight weeks, with the following timeline: initial assessments, intervention implementation, and post-intervention evaluations. Descriptive statistics, including means and standard deviations, summarized participants' metacognition levels. A T-test for paired samples analyzed the differences between pre-test and post-test scores within each group, while a T-test for independent samples compared metacognition increments between SPL and DIA groups. These statistical methods were selected to address the research questions and assess the effectiveness of the interventions.

Research Results

The students in the Self-Paced Learning enhanced their metacognition skills in planning, monitoring, and evaluating from Low Metacognition to High Metacognition. On the other hand, the students exposed to the Direct Instruction Approach improved their performance from Low Metacognition to Moderate Metacognition.

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The pretest and posttest results of students exposed to the Self-Paced Learning and Direct Instruction Approach differed significantly implying that both interventions helped enhance the metacognition of the groups.

The mean increments of the two groups' enhanced metacognition did not differ significantly, which means that self-paced learning is more effective in improving the students' metacognition.

Discussion

Problem 1: What is the participants' level of metacognition in terms of:

1.1 planning;
1.2 monitoring; and
1.3 evaluating?

Table 1 shows the frequency, percentage, and mean distribution of the metacognitive level (planning) before and after the interventions. The self-paced learning intervention yielded noteworthy results. The overall mean for metacognition levels increased from 1.99 in the pretest to 3.54 in the post-test. Examining the distribution within each category, it is evident that prior to the intervention, the majority of participants fell into the "Low Metacognition" range, with 49 out of 50 participants scoring between 1.51 and 2.50. However, after the intervention, there was a remarkable shift, with the majority now categorized as having "High Metacognition," as 29 out of 50 participants scored between 3.51 and 4.50.

Table 1

Frequency, Percentage, and Mean Distribution of the Metacognition Level before and after the Interventions (Planning)

		SELF-PACED LEARNING				**DIRECT INSTRUCTION APPROACH**			
Range	Interpretation	Pretest		Post Test		Pretest		Post Test	
		F	%	F	%	F	%	F	%
4.51-5.00	Very High Metacognition	0	0	0	0	0	0	0	0
3.51-4.50	High Metacognition	0	0	29	58	0	0	0	0
2.51-3.50	Moderate Metacognition	1	2	21	42	0	0	41	82
1.51-2.50	Low Metacognition	49	98	0	0	44	88	9	18
1.00-1.50	Very Low Metacognition	0	0	0	0	6	12	0	0
Total		**50**	**100**	**50**	**100**	**50**	**100**	**50**	**100**
Mean		**1.99**		**3.54**		**1.85**		**2.80**	
Interpretation		**Low Metacognition**		**High Metacognition**		**Low Metacognition**		**Moderate Metacognition**	
SD		**0.18**		**0.15**		**0.31**		**0.31**	

Supporting this finding, a study conducted on metacognition by Johnson et al.(2019) demonstrated similar results. SPL participants were aware of their responsibilities beforehand and that they were solely accountable for their study schedule, learning process, and overall performance in every activity. This made them rely on their ability to plan out ahead of time which in turn gave this metacognition skill on planning leaned towards their favor.

Conversely, the direct instruction approach yielded a different pattern. While there was still an increase in the overall mean from 1.85 in the pretest to 2.80 in the post-test, the improvement was not as pronounced as that seen with self-paced learning. In the pretest, most participants were classified as having "Moderate Metacognition," with 21 out of 50 falling within this range. However, after the intervention, the distribution shifted towards the "Low Metacognition" category, with 41 out of 50 participants scoring between 1.51 and 2.50.

Supporting this observation, a study by Smith and colleagues (2018) corroborates these findings. It was evident that the students under DIA embodied the ability to plan, but it was yet to be developed further due to their nature that they should be guided accordingly with the help of more knowledgeable others (MKO) — may it be in the person of the instructor or the classmates.

The study's findings could best be interpreted as that participants in the self-paced learning group demonstrated improvements in their planning skills compared to those in the direct instruction group. This improvement may be attributed to the self-directed nature of self-paced learning, which empowers students to manage their study schedules and set goals according to their individual learning needs and preferences as they are mostly working students or students fending for themselves. This difference in effectiveness between the two instructional approaches suggested that self-paced learning offers a more conducive environment for fostering metacognitive skills related to planning.

Table 2

Frequency, Percentage, and Mean Distribution of the Metacognition Level before and after the Interventions (Monitoring)

		SELF-PACED LEARNING				**DIRECT INSTRUCTION APPROACH**			
Range	Interpretation	Pretest		Post Test		Pretest		Post Test	
		F	%	F	%	F	%	F	%
4.51-5.00	Very High Metacognition	0	0	0	0	0	0	0	0
3.51-4.50	High Metacognition	0	0	40	80	0	0	0	0
2.51-3.50	Moderate Metacognition	4	8	10	20	0	0	46	92

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Table 2 *(Continued)*

Range	Interpretation	SELF-PACED LEARNING				DIRECT INSTRUCTION APPROACH			
		Pretest		Post Test		Pretest		Post Test	
		F	%	F	%	F	%	F	%
1.51-2.50	Low Metacognition	46	92	0	0	41	82	4	8
1.00-1.50	Very Low Metacognition	0	0	0	0	9	18	0	0
Total		**50**	**100**	**50**	**100**	**50**	**100**	**50**	**100**
Mean		**2.09**		**3.70**		**1.66**		**2.89**	
Interpretation		**Low Metacognition**		**High Metacognition**		**Low Metacognition**		**Moderate Metacognition**	
SD		**0.18**		**0.15**		**0.17**		**0.20**	

Table 2 presents the frequency, percentage, and mean distribution of the metacognitive - monitoring level before and after the interventions. The results of the self-paced learning intervention reveal an improvement in participants' metacognition levels. The overall mean increased from 2.09 in the pretest to 3.70 in the post-test, indicating an enhancement in metacognition. Examining the distribution within each category, it is evident that before the intervention, the majority of participants fell into the "Low Metacognition" range, with 46 out of 50 participants scoring between 1.51 and 2.50. However, after the intervention, there was a remarkable shift, with the majority now categorized as having "High Metacognition," as 40 out of 50 participants scored between 3.51 and 4.50.

This finding is supported by a study conducted by Chen and colleagues (2021) that investigated self-paced learning on metacognitive development in undergraduate students. Their findings align with the results presented in Table 2, as the nature of the students under SPL is responsible for monitoring their progress, learning, and overall experience in Speech and Stage Arts within the timeframe given. Schedules were very tight, so their ability to stay on track and monitor their progress depended on their ability to be aware of their progress. Hence, the overall performance of SPL respondents clearly showed their metacognition skills in monitoring.

Conversely, when analyzing the results of the direct instruction approach, a different pattern emerges. While there was an increase in the overall mean from 1.66 in the pretest to 2.89 in the post-test, the improvement was not as pronounced as that seen with self-paced learning. In the pretest, the majority of participants were classified as having "Moderate Metacognition," with 46 out of 50 falling within this range. However, after the intervention, the distribution shifted towards the "Low Metacognition" category, with 41 out of 50 participants scoring between 1.51 and 2.50.

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Supporting this observation, a study by Lee and Smith (2019) cited the effectiveness of direct instruction in promoting metacognitive development in secondary school students. This signified that the respondents under DIA have embodied the ability to monitor their learning process and progress, however, due to their innate capability of being an MKO dependent, they were not able to possess this in an elaborative manner.

Table 3 presents the frequency, percentage, and mean distribution of the metacognitive evaluation level before and after the intervention. The overall mean for metacognition levels increased from 1.74 in the pretest to 3.58 in the post-test in SPL, indicating an enhancement in metacognition. Delving into the distribution within each category, prior to the intervention, the majority of participants were classified as having "Low Metacognition," with 36 out of 50 scoring between 1.51 and 2.50. However, following the intervention, a remarkable shift occurred, with the majority now categorized as having "High Metacognition," as 45 out of 50 participants scored between 3.51 and 4.50.

Table 3

Frequency, Percentage, and Mean Distribution of the Metacognition Level before and after the Interventions (Evaluating)

		SELF-PACED LEARNING				**DIRECT INSTRUCTION APPROACH**			
Range	Interpretation	Pretest		Post Test		Pretest		Post Test	
		F	%	F	%	F	%	F	%
4.51-5.00	Very High Metacognition	0	0	0	0	0	0	0	0
3.51-4.50	High Metacognition	0	0	45	90	0	0	0	0
2.51-3.50	Moderate Metacognition	0	0	5	10	0	0	45	90
1.51-2.50	Low Metacognition	36	72	0	0	42	80	5	10
1.00-1.50	Very Low Metacognition	14	28	0	0	8	16	0	0
Total		**50**	**100**	**50**	**100**	**50**	**100**	**50**	**100**
Mean		**1.74**		**3.58**		**1.88**		**2.82**	
Interpretation		**Low Metacognition**		**High Metacognition**		**Low Metacognition**		**Moderate Metacognition**	
SD		**0.24**		**0.12**		**0.29**		**0.29**	

Supporting this finding, a longitudinal study conducted by Brown et al. (2017) metacognition investigated self-paced learning on metacognitive development in college students. Their findings align closely with the results presented in Table 3 due to the type or nature of the students under SPL. They are working students, house

help, or fending for themselves, which is why it is very important for them to cope with the daily struggles both in work and studies. This enabled them to closely evaluate their choices in order to come up with a better understanding of their circumstances and yield favorable results. Hence, SPL participants showed their ability to evaluate as a skill in metacognition.

Conversely, when examining the outcomes of the direct instruction approach depicted in Table 3, a different trend emerges. While there was an increase in the overall mean from 1.88 in the pretest to 2.82 in the post-test, the magnitude of improvement was not as substantial as that observed with self-paced learning. In the pretest, the majority of participants were classified as having "Low Metacognition," with 42 out of 50 falling within this range. However, following the intervention, the distribution shifted towards the "Moderate Metacognition" category, with 45 out of 50 participants scoring between 2.51 and 3.50.

Supporting this observation, a study by Smith and Jones (2023) examined the effectiveness of direct instruction in promoting metacognitive development in high school students. Their findings echo the results presented in Table 3 which showed the overall ability of the students under DIA to evaluate their learning progress and process. Since the students under DIA were closely monitored on a daily basis, their progress may not always call for an intrinsically evaluative opportunity. Hence, they can show their ability to evaluate their learning but not elaboratively.

Table 4 provided a comprehensive summary of participants' metacognitive performance before and after the interventions, comparing self-paced learning with the direct instruction approach. In the self-paced learning intervention, the overall mean for metacognition levels increased across all categories. Starting with the planning phase, the overall mean rose from 1.99 in the pretest to 3.54 in the post-test, indicating a significant improvement. Prior to the intervention, the majority of participants were classified as having "Low Metacognition." However, after the intervention, the majority shifted to "High Metacognition".

Table 4

Summary Table of the Participants' Metacognitive Level Performance before and after the Interventions

	SELF-PACED LEARNING				**DIRECT INSTRUCTION APPROACH**			
Metacognition	**Pretest**		**Post Test**		**Pretest**		**Post Test**	
	M	**Desc**	**M**	**Desc**	**M**	**Desc**	**M**	**Desc**
Planning	1.99	LM	3.54	HM	1.85	LM	2.80	MM
Monitoring	2.09	LM	3.70	HM	1.66	LM	2.89	MM
Evaluating	1.74	LM	3.58	HM	1.88	LM	2.82	MM
OVERALL	**1.94**	**LM**	**3.61**	**HM**	**1.80**	**LM**	**2.84**	**MM**

Legend: LM- Low Metacognition MM- Moderate Metacognition HM- High Metacognition

Conversely, when analyzing the outcomes of the direct instruction approach, the overall mean also showed improvement but to a lesser extent compared to self-paced learning. In the planning phase, the overall mean increased from 1.85 in the pretest to 2.80 in the post-test. While there was a positive shift, the majority of participants were classified as having "Low Metacognition." However, after the intervention, the majority shifted to "Moderate Metacognition".

As established earlier, across the planning, monitoring, and evaluating phases, participants in the self-paced learning group consistently demonstrated higher levels of metacognition with an overall mean of 3.61 compared to those in the direct instruction group which culminated in moderate metacognition with an overall mean of 2.84.

Participants in the self-paced learning group consistently demonstrated higher levels of metacognition compared to those in the direct instruction group for various observable reasons. Firstly, self-paced learning allowed for individualized learning experiences, wherein participants can progress through materials at their own pace and revisit concepts as needed. This flexibility fostered a sense of autonomy and ownership over the learning process, which in turn promoted deeper engagement and reflection. Additionally, self-paced learning often incorporated interactive and multimedia resources posted in their Google Classroom, providing diverse opportunities for learners to engage with content and apply metacognitive strategies whenever they can. Moreover, self-paced learning platforms frequently offer immediate feedback mechanisms as they practice answering through Google Forms immediate feedback is enabled in every form setting, allowing participants to monitor their progress and adjust their learning strategies accordingly.

In contrast, direct instruction, while valuable for delivering structured content, limits opportunities for individualized exploration and reflection. Participants in the direct instruction group have experienced more passive learning experiences, which contributed to their metacognitive development. Overall, the personalized, flexible, and interactive nature of self-paced learning likely contributed to the consistently higher levels of metacognition observed in participants within this group.

2. How do the students in each group compare their metacognition before and after the intervention?

Ho_1: There was no significant difference in the metacognition before and after the intervention in each group.

Table 5

Test of Difference in the Participants' Metacognition before and after the Interventions

Metacognition	SELF-PACED LEARNING					DIRECT INSTRUCTION APPROACH				
	Pretest	Post Test	t	p	Effect Size	Pretest	Post Test	t	p	Effect Size
Planning	1.99	3.54	50.87**	0.000	.22	1.85	2.80	34.09**	0.000	.20
Monitoring	2.09	3.70	43.36**	0.000	.26	1.66	2.89	35.47**	0.000	.25

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Table 5 *(Continued)*

Metacognition	SELF-PACED LEARNING					DIRECT INSTRUCTION APPROACH				
	Pretest	Post Test	t	p	Effect Size	Pretest	Post Test	t	p	Effect Size
Evaluating	1.74	3.58	46.13**	0.000	.28	1.88	2.82	17.54**	0.000	.38
OVERALL	**1.87**	**3.60**	**55.33****	0.000	.22	**1.79**	**2.84**	**33.93****	0.000	**.22**

**significant at 0.01 level

Table 5 presents the results of the test of difference in participants' metacognition levels before and after the interventions, comparing self-paced learning with direct instruction. In the self-paced learning intervention, the overall mean for metacognition levels increased significantly from 1.87 in the pretest to 3.60 in the post-test. Delving into the specific phases of metacognitive processes, such as planning, monitoring, and evaluating, substantial improvements were observed across all categories. In the planning phase, the mean score increased from 1.99 in the pretest to 3.54 in the post-test, indicating a notable enhancement. Similarly, significant improvements were observed in the monitoring and evaluating phases, with mean scores rising from 2.09 to 3.69 and from 1.74 to 3.58, respectively.

Conversely when examining the results of the direct instruction approach depicted in Table 5, a different trend emerges. While there was an increase in the overall mean from 1.79 in the pretest to 2.84 in the post-test, the magnitude of improvement was not as pronounced as that observed with self-paced learning. In each phase of metacognitive processes, including planning, monitoring, and evaluating, the mean scores showed some improvement, but the effect sizes were smaller compared to self-paced learning. In the planning phase, the mean score increased from 1.85 in the pretest to 2.80 in the post-test. Similarly, improvements were observed in the monitoring and evaluating phases, with mean scores rising from 1.66 to 2.89 and from 1.88 to 2.82, respectively. However, the effect sizes indicate that the improvement done by direct instruction on metacognition may be comparatively smaller.

To dig deeper into the importance and interpretation of the effect size, also known as Cohen's d, according to Cohen (1988), it is a standardized measure of effect size that quantifies the difference between two means in terms of standard deviation units. The interpretation of Cohen's d typically follows a range where small effect sizes are considered around 0.2, medium effect sizes around 0.5, and large effect sizes around 0.8. However, interpretations can vary slightly depending on the context and field of study. In educational research, for example, effect sizes above 0.3 are often considered practically significant, indicating a noticeable weight of the intervention or treatment. Therefore, in the context of comparing instructional approaches, effect sizes between 0.2 and 0.5 may suggest meaningful differences in outcomes, while effect sizes above 0.5 indicate more substantial effects warranting attention and consideration in educational practice and policy.

For the self-paced learning group, the effect sizes for planning, monitoring, evaluating, and overall metacognition were 0.22, 0.26, 0.28, and 0.22, respectively. These effect sizes indicate a small to medium effect, suggesting a meaningful improvement in metacognitive skills following the intervention. Similarly, for the direct instruction group, the effect sizes for planning, monitoring, evaluating, and overall metacognition were 0.20, 0.25, 0.38, and 0.22, respectively. These effect sizes also suggest a small to medium effect, indicating a notable enhancement in metacognitive skills after the intervention.

Overall, both instructional approaches demonstrated positive effects on metacognitive development, with slightly larger effect sizes observed in the evaluating phase for the direct instruction group compared to the self-paced learning group. This is due to the explicit guidance or structured feedback on the evaluation process under DIA, leading to greater improvement in this specific metacognitive skill. Additionally, the nature of the instructional materials or tasks used in the direct instruction group had specifically targeted evaluation skills, resulting in more pronounced gains in this area. Finally, individual differences in learning preferences or cognitive styles among participants in the direct instruction group may have influenced the effectiveness of the instructional approach, leading to varied outcomes across different metacognitive processes.

With the data gathered, the hypothesis (Ho1) that there was no significant difference in metacognition before and after the intervention in each group can be *rejected*. In the self-paced learning intervention, there was a notable increase in overall metacognition levels from a mean of 1.87 in the pretest to 3.60 in the post-test. Significant improvements were also observed across specific phases of metacognitive processes, including planning, monitoring, and evaluating, with substantial increases in mean scores. Conversely, while there was an increase in overall mean metacognition scores from 1.79 in the pretest to 2.84 in the post-test for the direct instruction approach, the magnitude of improvement was not as pronounced as with self-paced learning. Although there were improvements across all phases of metacognitive processes, the effect sizes suggest that the contribution of direct instruction on metacognition may be comparatively smaller than that of self-paced learning. Therefore, the evidence from the study supported rejecting the hypothesis that there was no significant difference in metacognition before and after the intervention in each group.

3. Do the two groups of participants' metacognitive increments significantly differ?

Ho_2: There was no significant difference in the students' metacognitive increments of the two groups of remote learners.

Table 6 presents the results of the test of the difference in the increments of participants' metacognition between the self-paced learning and direct instruction groups. In the self-paced learning group, the overall mean for metacognitive skill increments was notably higher compared to the direct instruction group. Starting with the specific phases of metacognitive processes, such as planning, monitoring, and evaluating, differences were observed across all categories. In the planning phase, the mean increment in metacognition was 1.55 for the self-paced learning group, whereas it was 0.95 for the direct instruction group.

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Conversely, when examining the results of the direct instruction group depicted in Table 6, a different trend emerges. While there was an increase in the overall mean increment from 1.02 in the planning phase to 1.84 in the evaluation phase, the mean increments were generally lower compared to the self-paced learning group. It is visible now that in planning, monitoring, and evaluating, participants in the direct instruction group showed smaller increments in metacognition compared to the self-paced learning group.

Table 6

Test of Difference in the Two Groups of Participants' Metacognitive Increments

Metacognition	SELF-PACED LEARNING		DIRECT INSTRUCTION APPROACH				
	M	SD	M	SD	t	p-value	Effect Size
Planning	1.55	.22	.95	.31	23.01**	0.00	.27
Monitoring	1.60	.26	1.23	.25	7.38**	0.00	.25
Evaluating	1.84	.28	.94	.38	13.42**	0.00	.33
OVERALL	**1.62**	**.18**	**1.02**	**.24**	**14.25****	0.00	**.21**

**significant at 0.01 level

To further justify the effect size in Table 6, here are the results. For Planning, the effect size of 0.27 indicates a medium effect, suggesting a meaningful difference between the self-paced learning and direct instruction groups regarding planning skills. For Monitoring, the effect size of 0.25 also suggests a medium effect, indicating a significant difference in monitoring abilities between the two instructional approaches. For Evaluating, the effect size of 0.33 indicates a medium effect, signifying a substantial difference in evaluating skills between the self-paced learning and direct instruction groups. Overall, the effect size of 0.21 suggests a small to medium effect, indicating a notable difference in metacognitive skills between the two instructional approaches across all dimensions.

These effect sizes indicate that self-paced learning and direct instruction have a meaningful contribution to metacognition, with self-paced learning generally showing slightly larger effects across planning, monitoring, evaluating, and overall metacognition compared to direct instruction. This slightly larger effect of SPL is due to the strategy's nature that allowed students to take control of their learning process, enabling them to engage in activities that are more aligned with their individual learning styles and preferences. This autonomy and flexibility resulted in increased motivation and engagement, leading to more significant gains in metacognitive skills.

Additionally, self-paced learning often encourages active learning strategies such as reflection, self-assessment, and goal setting, which are integral components of metacognitive development. These strategies promote deeper levels of understanding and awareness of one's own learning processes, contributing to larger effect sizes in metacognitive improvement. Furthermore, the personalized nature of self-paced

learning allows students to receive immediate feedback and adjust their learning strategies accordingly, facilitating more effective metacognitive regulation. Overall, the combination of autonomy, active learning strategies, and personalized feedback in self-paced learning may contribute to slightly larger effect sizes in metacognitive improvement compared to direct instruction.

Based on the results presented in Table 6, the null hypothesis stating that there was no significant difference in the students' metacognitive increments of the two groups of remote learners can be *rejected*. In the self-paced learning group, the overall mean for metacognitive skill increments was notably higher compared to the direct instruction group. Significant differences were observed across specific phases of metacognitive processes, such as planning, monitoring, and evaluating, with the self-paced learning group showing larger increments. In the planning phase, the mean increment in metacognition was 1.55 for the self-paced learning group, whereas it was 0.95 for the direct instruction group. Conversely, participants in the direct instruction group showed smaller increments in metacognition compared to the self-paced learning group across all phases. Therefore, the evidence from the study supported rejecting the null hypothesis, indicating a significant difference in the metacognitive increments of the two groups of remote learners implying that SPL is more effective in improving the metacognition of the students.

Recommendations

Based on the study's findings on enhancing metacognition among distance learners through Self-Paced Learning (SPL) and the Direct Instruction Approach (DIA), several recommendations are proposed to benefit stakeholders in the educational landscape:

1. *For remote distance students*, it is crucial to embrace the potential of SPL to enhance their performance in remote learning environments. Students should actively engage in SPL techniques by setting personalized learning goals, conducting self-assessments, and participating in reflection activities. This approach leverages their autonomy and improves metacognitive skills. However, challenges such as maintaining self-discipline and motivation may arise. To address these issues, students can utilize digital tools for time management, form virtual study groups for peer support, and schedule regular check-ins with instructors or mentors for guidance and encouragement.

2. *For PHINMA Education Network*, integrating SPL and DIA into teaching methodologies can significantly enhance the metacognitive development of students. This can be achieved by training educators on these strategies and providing resources for their implementation. Incorporating SPL elements, such as adaptive learning platforms and personalized feedback, alongside DIA techniques, like structured instructional sessions and direct feedback, will be beneficial. Challenges related to resource allocation and training may occur. To mitigate these, the institution can initiate pilot programs to refine the integration process, gather feedback, and invest in professional development and support systems for educators.

3. *Future researchers* should continue to explore and refine interventions aimed at improving metacognition across diverse educational contexts. Investigating how SPL and DIA can be adapted to various subjects and educational levels will provide a more comprehensive understanding of their impact. Researchers might face

limitations such as variability in settings and participant backgrounds. Using mixed methods and longitudinal designs can help address these challenges, while collaboration with educational institutions can ensure practical relevance and enhance research designs.

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Effectiveness of Constructivist and Behaviorist Approaches in Improving the Writing Skills of Grade 12 STEM Students with Writing Deficiency

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Abstract

Writing is an essential skill for interpersonal communication that enables people to share ideas, persuade, and convince one another. However, students struggle to express their ideas in writing. This study aimed to investigate the effectiveness of Constructivist and Behaviorist approaches in improving the writing skills of Grade 12 STEM students who have writing deficiency. This study employed a quasi-experimental research design involving fifty (50) participants exposed to the constructivist approach, and the other fifty (50) were exposed to the behaviorist approach. They were chosen through total enumeration. The researcher administered a pretest and posttest through an argumentative essay. Results reveal that students exposed to both approaches progressed from the "Developing" level before the intervention to the "Proficient" level in all sub-skills, such as topic development, organization, vocabulary, sentence structure, and mechanics after the intervention. Furthermore, a significant improvement in the participants' writing skills was observed after the interventions. The constructivist and behaviorist approaches were both effective in improving the writing skills of the participants. However, the constructivist approach appeared to have better results than the behaviorist approach, especially on the sub-skill sentence structure. It is recommended that English teachers expose students to activities using a constructivist approach, such as active participation, peer review, and reflection practices.

Keywords: behaviorist approach, constructivist approach, writing skills

Introduction

Writing is an essential skill for interpersonal communication that enables people to share ideas, persuade, and convince one another. It is commonly known as a dynamic and productive skill among the basic language skills. However, writing effectively is a challenging skill to develop, especially in academic settings. Thus, enhancing the said skill by employing writing methods helps an individual through various means and gives an advantage in academic success.

In this study, writing deficiency refers to the specific challenges that Grade 12 STEM students encounter in several key areas of writing. These deficiencies include difficulties with topic development, where students struggle to fully explore and

articulate their ideas, often leading to superficial or underdeveloped content. Organization is another critical issue, as many students find it challenging to structure their writing logically, resulting in disjointed or incoherent narratives. Furthermore, students often grapple with appropriate vocabulary usage, either lacking the precision needed to convey complex concepts or over-relying on jargon without ensuring clarity. Issues with sentence structure are also prevalent, where students may write fragmented, run-on, or awkward sentences that hinder the flow and readability of their work. Lastly, mechanics-including grammar, punctuation, and spelling-pose significant obstacles, with frequent errors detracting from the overall quality and professionalism of their writing. Addressing these specific areas is crucial to improving the writing skills of STEM students and preparing them for the demands of higher education and professional careers.

Furthermore, writing abilities encompass many skills essential for effective communication in both professional and personal settings. According to Xavier (2020), proficient writing remains crucial to effective communication, enabling individuals to convey messages clearly and effortlessly. In the report formulated by Felipe (2020) regarding writing skills, merely 1% of Grade 5 students in the Philippines reached higher levels of proficiency, indicating that they met the study's most advanced standards. These students could compose coherent texts with well-developed ideas and a diverse vocabulary. On the other hand, nearly half, precisely 45%, of Grade 5 students in the Philippines fell into the lowest proficiency category, signifying they possessed limited skills when conveying ideas through writing. For this reason, Aliyu (2020) pointed out that writing skills are essential in English learning as they play a vital role in facilitating learners' academic achievement. Moreover, Chen (2022) stated that when teaching the English language, teachers must explore how students learn and consider using strategies in writing instruction.

In addition, Finlayson and Mccrudden (2019) also state that individuals lacking adequate fundamental writing abilities may encounter challenges when participating in everyday tasks involving school-related communication. The ability to write enhances and complements other skills related to learning. Deti et al. (2023) emphasized that writing tasks can enhance students' linguistic skills, cognitive abilities, and sociocultural proficiencies. Masrul et al. (2023) mentioned that language learners can derive advantages in academic writing by employing learning methods, whether in a second language or foreign language context. However, their specific learning goals may require unique strategies. Hence, to enhance their writing skills, it is essential to implement strategy instructions that offer precise, systematic tools to guide students through different stages of the writing process.

As an English teacher in the Senior High School (SHS), the researcher has observed that the Grade 12 STEM students struggle with academic writing, especially when given writing activities. This difficulty arises from the need to create paragraphs in their assignments or essays. Even though they understand the topic they have studied, it is clear that these students need help in expressing their thoughts in written English, which makes it hard for them to convey their ideas clearly and comprehensively. The Constructivist and Behaviorist approaches were selected for this study because each uniquely addresses different aspects of the identified writing deficiencies in STEM students. The Constructivist approach was chosen for its effectiveness in promoting deep, reflective learning, By engaging students in active learning, this approach helps

them better understand and structure their writing. In contrast, the Behaviorist approach was selected for its strength in reinforcing specific writing skills through repetition and feedback. Implementing these approaches separately allows the study to explore how each method independently contributes to addressing distinct aspects of writing deficiencies.

According to Arnawa et al. (2023), in academic contexts, writing in English allows students to communicate their research discoveries to a worldwide audience, enabling them to present their ideas and research on an international platform. However, Raoofi et al. (2017) mention that writing represents a multifaceted and intricate process, mainly posing more significant difficulties for learners who engage in writing using a language that is not their native tongue. To achieve academic success, the research findings of Teng and Zhang (2020) have indicated that applying writing strategies and methods favorably impacts the development of writing skills in second language learning.

With the abovementioned information, the study aimed to determine the effectiveness of employing the Constructivist and Behaviorist approaches in enhancing the writing skills of Grade 12 STEM Senior High School students with writing deficiency. Specifically, the study tested two null hypotheses at a 0.05 significance level: that there would be no significant difference in writing skills before and after the intervention within each group, and that there would be no significant difference in the writing skills rating increments between the two groups.

Research Objectives

This study aimed to determine the effectiveness of the Constructivist and Behaviorist Approaches in enhancing the writing skills of Grade 12 STEM Senior High School students. It sought to address the following questions:

1. What is the writing skill improvement of the two groups of participants before and after the interventions in terms of:
   1.1. topic development;
   1.2. organization;
   1.3. vocabulary;
   1.4. sentence structure; and
   1.5. mechanics?
2. How do the participants in each group compare in their writing skill improvement before and after the intervention?
3. “Is there a significant difference in the improvement of writing skills between the two groups after the interventions?”

Methodology

The present study utilized a quasi-experimental research design. The choice of a quasi-experimental design in this study is appropriate, as it enabled the examination of the effectiveness of the Constructivist and Behaviorist approaches on the Grade 12 STEM students’ writing skills. The participants for this study were one hundred (100) Grade 12 senior high school students enrolled in one of the faith-based institutions and have taken the subject Inquiries, Investigation, and Immersion Class for the academic year 2023-2024. A total enumeration was utilized to select the participants. The question used in the writing test was a researcher-made instrument that has undergone

validity and reliability testing. The research instrument was an argumentative type of essay. Also, the study adopted the academic writing assessment rubric originally developed by Bauer-Ramazani (2013). The modifications were based on the proficiency levels (*Advanced, Proficient, Approaching Proficiency, Developing, and Beginning*) recommended in the Department of Education's DO No.32, s. 2012.

Before conducting the research study, the researcher sought approval from the Lourdes College Research and Ethics Committee (REC). Then, the researcher asked permission from the school principal to carry out the study in all participating sections. Then, the study followed the six (6) weeks of implementation. To determine the authenticity of the participants' output, the researcher had a face-to-face class with the participants four times a week. Three intensive instruction periods with short breaks to avoid cognitive load were implemented, and they were given a writing activity every fourth session of the week for monitoring purposes. In the first week, the researcher informed participants about the study's importance, risks, benefits, and purpose, and then conducted a pretest where participants wrote three paragraphs using a provided argumentative essay template. Over the next five weeks, the interventions were implemented: the Constructivist group engaged in activities including Socratic questioning, creative writing prompts, reflective practices, and peer reviews to enhance critical thinking and writing skills. The Behaviorist group participated in sentence completion exercises, timed writing, and outlining to improve grammar, writing fluency, and organization. The final session involved a post-intervention assessment to evaluate the effectiveness of the Constructivist and Behaviorist approaches.

Descriptive Statistics such as mean, and standard deviation were used to identify the writing skill improvement of the two groups of participants before and after the interventions. To analyze the effectiveness of the interventions, a paired sample t-test was employed to compare the participants' writing skill performance before and after the interventions within each group, as this test is suitable for assessing changes in the same group over time. Additionally, an independent sample t-test was utilized to compare the score increments between the two groups, allowing the study to determine whether the differences in improvement between the groups were statistically significant.

Research Results

In the study, students utilizing the Constructivist Approach showed significant improvement in writing skills, with scores increasing from a "Developing" to a "Proficient" level across all categories. Conversely, students exposed to the Behavioristic Approach also demonstrated progress, advancing from "Developing" to either "Proficient" or "Approaching Proficiency" in various categories.

The significant differences between the pretest and posttest results for students exposed to the Constructivist and Behaviorist approaches suggest that both methods were effective in enhancing the writing skills of the students.

The increments in writing skill ratings between the two groups did not differ significantly for most sub-skills, indicating that both the constructivist and behavioristic approaches were effective in improving topic development, organization, vocabulary, and mechanics. However, the constructivist approach showed a significant difference in enhancing sentence structure, likely due to its emphasis on peer review, reflection, and collaborative learning.

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Discussion

Problem 1. What is the writing skill improvement of the two groups of participants before and after the interventions?

Table 1 presents the concise overview of the the students' writing skills performance before and after the interventions in both constructivist and behaviorist approaches.

The data show that both groups demonstrated increased performance in writing skills, which is evident in the increase in the respective overall means. The overall pretest mean score for the constructivist approach group is 2.14, classified as the "Developing" stage. This indicates that participants faced challenges in effectively communicating ideas and adhering to correct grammar and writing conventions. However, following the intervention, the overall posttest mean score of 3.90, interpreted as "Proficient," demonstrating a substantial increase. This indicates that participants acquired the ability to communicate the ideas clearly and coherently, employing correct grammar and writing conventions.

Table 1

Participants' Writing Skill Performance before and after the Interventions

Writing Skill Performance Test	CONSTRUCTIVIST APPROACH						BEHAVIORISTIC APPROACH					
	Pretest			Posttest			Pretest			Posttest		
	x̄	SD	Desc	x̄	SD	Desc	x̄	SD	Desc	x̄	SD	Desc
1. Topic Development	2.31	0.45	D	4.27	0.67	P	2.35	0.39	D	4.08	0.57	P
2. Organization	2.33	0.58	D	3.99	0.67	P	2.33	0.47	D	3.94	0.57	P
3. Vocabulary	2.11	0.44	D	3.76	0.69	P	2.17	0.39	D	3.55	0.59	P
4. Sentence Structure	1.98	0.45	D	3.76	0.72	P	2.12	036	D	3.45	0.55	AP
5. Mechanics	2.01	0.41	D	3.75	0.65	P	1.97	0.33	D	3.61	0.51	P
Overall	**2.14**	**0.37**	**D**	**3.90**	**0.60**	**P**	**2.18**	**0.27**	**D**	**3.73**	**0.45**	**P**

Legend: *Ad- Advanced: 4.51-5.0* *P -Proficient: 3.51-4.50* *AP- Approaching Proficiency: 2.51-3.50* *D- Developing: 1.51-2.50* *B- Beginning: 1.0-1.50*

A study by Martin (2022) found that the constructivist approach significantly improved the descriptive writing skills of fourth-grade students. Similarly, Taufik (2020) observed a significant improvement in student performance in writing literary works, while Ebedy (2021) highlighted the effectiveness of a constructivism-based program in developing English reading and writing skills. These findings collectively suggest that the constructivist approach enhances writing skills.

In the behavioristic approach group, the overall pretest mean score stood at 2.18, categorized as "Developing," indicating that students faced challenges regarding structure, coherence, and adherence to conventions. During the posttest, the group achieved a mean score of 3.73, indicating "Proficient" performance. This suggests that the behavioristic approach, characterized by structured practice and reinforcement, effectively enhanced students' ability to craft well-structured, coherent, and effective written compositions. These findings underscore that both groups had increased writing performance across all sub-skills.

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Research has shown that the behaviorist approach can improve writing skills. Calkin (2017) demonstrated the effectiveness of direct instruction in teaching writing to students, while Hansen (2014) found that performance-based interventions such as goal setting and contingent reward can increase the number of correctly spelled words and complete sentences. These studies collectively suggest that the behaviorist approach, focusing on observable behaviors and environmental events, can be a valuable tool in enhancing writing skills.

Problem 2. How do the participants in each group compare their writing skills before and after the intervention?

H_{o1}: There is no significant difference in the writing skills of the participants in both groups before and after the intervention.

Table 2 presents the test results of the differences in the participants' writing skills before and after the interventions. The overall post-test results for both interventions showed significant differences with the p-value of 0.000 in the students' overall writing skill in all sub-skills, which indicates an improvement in the writing skill performance between the pretest and post-test of the students for both groups. Consequently, the null hypothesis is rejected.

Table 2

Test of Difference in the Participants' Writing Skill before and after the Interventions

Writing Skill	CONSTRUCTIVIST APPROACH					BEHAVIORISTIC APPROACH				
	Pre Test $\bar{x}$	Post Test $\bar{x}$	t	p	Effect Size	Pre Test $\bar{x}$	Post Test $\bar{x}$	t	p	Effect Size
1. Topic Development	2.31	4.27	19.84**	.00	**.26**	2.35	4.08	18.86**	.00	**2.67**
2. Organization	2.33	3.99	16.12**	.00	**.27**	2.33	3.94	18.21**	.00	**2.58**
3. Vocabulary	2.11	3.76	14.64**	.00	**.22**	2.17	3.55	16.93**	.00	**2.39**
4. Sentence Structure	1.98	3.76	17.42**	.00	**.23**	2.12	3.45	14.99**	.00	**2.12**
5. Mechanics	2.01	3.75	17.54**	.00	**.22**	1.97	3.61	19.80**	.00	**2.80**
OVERALL	**2.14**	**3.91**	**20.44****	**.000**	**.11**	**2.18**	**3.73**	**24.06****	**.00**	**3.38**

**significant at 0.01 level *significant at 0.05 level

The significant difference observed in both pretest and posttest scores across all sub-skills within the constructivist approach group, with a p-value of 0.00, underscores the effectiveness of the intervention in enhancing the students' writing skill development. Employing the Socratic Method during the intervention allowed participants to actively engage in learning, encouraging them to discover information and develop topics autonomously. Additionally, incorporating creative wiring prompts facilitated narrative development, particularly in the organization and vocabulary sub-skills. Furthermore, active participation, peer review, and reflection practices further enriched the learning experience, allowing students to refine their sentence structure

and writing conventions. By engaging in collaborative activities and receiving feedback from both the researcher and peers, students could identify areas for improvement and make necessary adjustments to their writing. However, the effect sizes, though statistically significant, revealed relatively small differences. The overall effect size of .11 is very small, suggesting that while the Constructivist approach improved writing skills across all sub-skills, the overall impact was minimal.

Multiple studies have shown that using a constructivist approach improves writing skills. In a study conducted by Ardiasih (2019), it was discovered that learners reported a meaningful learning experience and showed enhanced skills in writing argumentative essays through online collaborative writing. Similarly, Taifuk (2020) reported a notable rise in student achievement in composing literary works, attributing it to a constructivist approach. These studies collectively confirm the efficacy of the constructivist approach in writing essays.

The participants exposed to the behaviorist approach showed a significant difference across all subskills in their pretest and post-test with a p-value of 0.00, which is lower than a 0.05 significance level. The intervention allowed the participants to systematically focus on their writing skills through various activities, including outlining paragraphs, repetitive writing practices and grammar drills, and positive reinforcement for their participation. Those activities helped the participants improve their writing skills and performance. Furthermore, consistent feedback from the researcher during the face-to-face sessions played a crucial role in guiding students' learning and addressing areas for improvement. This personalized feedback loop gave students timely guidance and support, facilitating their understanding of writing conventions and mechanics. Thus, this approach facilitated the gradual and systematic learning process that effectively built students' writing competence through structured activities. Regarding the effect sizes, the analysis indicates very large differences, suggesting a significant improvement in the participants' writing skills. These substantial effect sizes underscore the notable impact of the behavioristic approach in fostering the development of writing skills through structured activities.

Meanwhile, several researches have examined the behavioristic method in essay writing. In a study conducted by Callinan (2017), it was discovered that conventional feedback and self-efficacy play vital roles in developing essay writing skills, while the influence of observational learning is minimal. This aligns with Gallagher's (2016) contention that the emphasis should be placed on particular, quantifiable behaviors in writing. In 2016, Kempenaar put up a theoretical framework combining transactional and system perspectives to analyze academic writing habits. In Abdollahzadeh's (2017) study, the author examined the writing behavior of English as a Foreign Language (EFL) learners and emphasized the significance of argument parts in determining the overall quality of their writing. These studies highlight the importance of particular actions, feedback, and self-confidence in developing essay writing abilities.

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Problem 3. Do the two groups of participants differ significantly in writing skills rating increment?

H_{o2}: There is no significant difference in the writing skills rating increments of the participants in both groups.

Table 3 presents the results of the test of difference in the two groups of writing skill rating increments. As shown in the table, the p-values for topic development (.09), organization (.56), vocabulary (.06), and mechanics (.54) exceed the 0.05 alpha level, indicating that there is no statistically significant difference between the constructivist and behavioristic approach groups in terms of improvement in these specific writing sub-skills. Based from the overall p-value, the null hypothesis is rejected. This suggests that both instructional approaches enhanced the sub-skills: topic development, organization, vocabulary, and mechanics. However, the p-value for sentence structure is 0.00, below the 0.05 alpha level, suggesting a significant difference indicating that the constructivist strategies, emphasizing peer review and reflection practices, were efficient in fostering mastery of sentence patterns among the students compared to the behavioristic approach. The emphasis on peer review and reflection practices within the constructivist approach contributed to the deeper understanding and application of sentence structure concepts, leading to significant improvement in this area. Upon closer examination, these findings suggest that the constructivist approach, emphasizing collaborative learning, active exploration, reflection practices, and the Socratic method, offered distinct advantages in fostering comprehensive writing skills compared to the behavioristic approach. By providing opportunities for students to engage actively in the writing process, reflect on their work, and receive feedback from peers, the constructivist approach fosters a deeper understanding and application of writing conventions, enhancing overall writing performance.

Table 3

Test of Difference in the Two Groups of Participants' Writing Skill Increment

Writing Skill Performance Test	CONSTRUCTIVIST Approach		BEHAVIORIST Approach				
	$\bar{x}$	SD	$\bar{x}$	SD	t	p-value	Effect Size
1. Topic Development	1.96	.70	1.73	.65	1.70	.09	.70
2. Organization	1.69	.74	1.61	.62	.58	.56	.74
3. Vocabulary	1.65	.80	1.38	.58	1.94	.06	.80
4. Sentence Structure	1.78	.72	1.33	.63	3.33**	.00	.72
5. Mechanics	1.74	.70	1.66	.59	.62	.54	.70
Overall	**1.76**	**.61**	**1.54**	**.45**	**2.07***	**.04**	**.61**

** significant at 0.01 level, * significant at 0.05 level

Furthermore, the p-value for the overall writing performance of the participants also falls below the 0.05 alpha level, suggesting a significant difference in the writing skills increment between the two groups. This indicates significant differences in writing proficiency between the constructivist and behavioristic approach groups. While both groups showed improvement in specific writing sub-skills, the constructivist approach has been more effective in promoting overall writing proficiency, as evidenced by the significant difference observed. Regarding the effect sizes, there are large difference across all-subskills, highlighting substantial improvements in various aspects of writing skills. These effect sizes underscore the considerable impact of the constructivist approach in fostering improvements across sub-skill of writing, further supporting its efficacy in promoting comprehensive writing proficiency.

As supported by Ardiasih (2018), both found that implementing the constructivist approach significantly increased students' motivation and ability to write academic papers. This approach, which focuses on the process of writing, was also found to be more effective than the product approach in teaching academic writing. Furthermore, Zhao (2015) suggests that the constructivist approach can be used to develop effective teaching strategies and enhance students' writing skills.

Recommendations

Based on the study's findings and conclusion, the following recommendations are offered:

1. For Classroom Practice

1.1 For English Teachers that they may:

1.1.1 expose students to strategies using a constructivist approach, such as active participation, peer review, and reflection practices, to enhance their writing skills, specifically in the sub-skill sentence structure; and

1.1.2 utilize this study as a reference to address the low writing performance of the students' writing skills, especially in argumentative essays.

1.2 For Research Writing Teachers that they may:

1.2.1 integrate these approaches into teaching research writing to enhance the writing skills of the research students; and

1.2.2 employ the approaches in teaching the students to construct the foundation, such as the background of the study and theoretical framework of their research, to aid the clear establishment of the needed details

1.3 For School Administrators to:

1.3.1 encourage teachers to utilize constructivist and behaviorist approaches in the teaching-learning process.

1.3.2 include the classroom implementation of constructivist and behaviorist approaches in In-service Training as part of the professional development training.

2. For Future Research

2.1 For Future Researchers that they may:

2.1.1 further explore and conduct additional studies across various educational settings. Comparative research across different regions and educational levels could provide a more comprehensive understanding of how the approaches performs in diverse contexts.

2.1.2 expand more writing activities such as journaling and copywriting for both interventions to better investigate the effectiveness of constructivist and behavioristic approaches.

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