



THE WORD LISTS STRATEGY (TWLS-10): AN INTERVENTION ON ENHANCING VOCABULARY KNOWLEDGE AMONG GRADE 10 STUDENTS OF ANHS

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ABSTRACT

This study examined the effectiveness of The Word Lists Strategy (TWLS-10) intervention in enhancing vocabulary knowledge among Grade 10 students. The TWLS-10 strategy, a focused vocabulary-building method, was implemented to address the significant vocabulary difficulties observed among students. Data were gathered from 15 Grade 10 students selected through purposive sampling at Asuncion National High School in Asuncion, Davao del Norte, Philippines. Data collection was done through pre-test and post-test administration. Findings revealed a substantial difference in scores before and after the intervention. The overall average percentage result in the pre-test was 13.4%, described as high. After the intervention, the scores increased to 26.47%, indicating significant improvement, described as very high. The paired t-test results indicated a significant improvement in students' scores from the pretest to the post-test, $t(14) = 18.5, p < .001$. Employing a quantitative-descriptive method supplemented with qualitative data, the study provided a comprehensive understanding of vocabulary development challenges and the effectiveness of the TWLS-10 intervention. Ten participants, five for in-depth interviews and five for focus group discussions were selected for qualitative data collection. Findings revealed that students' initial vocabulary knowledge was limited across various areas, as measured by the Vocabulary Knowledge Scale. Post-intervention results showed significant improvement, with students achieving higher scores in the same areas. From their responses, five (6) themes were identified from the insights of students: 1) empowering the utilization of English language; 2) increase students' confidence; 3) law of exercise to improve vocabulary skills; 4) enhancement of communication skills; and 5) having dedication and self-motivation. In conclusion, the TWLS-10 strategy proved effective in enhancing vocabulary knowledge among the students.

KEYWORDS: The Word Lists Strategy (TWLS-10), Grade 10 students, quantitative-descriptive, vocabulary knowledge, Philippines

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INTRODUCTION

Vocabulary knowledge plays a significant role for academic success and cognitive growth. Research shows that knowing many words helps with reading, writing, and thinking skills (Nation, 2022). However, many learners struggle to build their vocabulary due to limited exposure to language-rich environments and lack of engagement with meaningful reading (Nguyen & Tran, 2021). This gap affects their ability to understand complex academic texts. To address this, researchers highlight the importance of strategic interventions that use technology and interactive learning. Studies show that digital platforms and multimedia tools provide engaging, personalized learning experiences that improve vocabulary retention and application (Liang et al., 2023).

In Australia, universities face ongoing challenges in supporting international students, particularly those learning English as a second language, due to limitations in their vocabulary

knowledge. Research revealed that 48% of international students in one Australian university struggled with understanding academic texts because of insufficient vocabulary, affecting their academic engagement and success (Snow, 2020). Similarly, in China, a study found that 56% of undergraduate students had difficulty comprehending specialized vocabulary in academic articles, which limited their participation in academic discourse (Li & Zhang, 2022). In Malaysia, 42% of college students reported relying heavily on translation tools when encountering unfamiliar English words, reflecting a gap in independent vocabulary use essential for higher education learning (Ilham et al., 2023).

In Koronadal City, South Cotabato, a recent survey revealed that 65% of Grade 9 and 10 students in selected public schools scored below 75% in standardized vocabulary tests, highlighting a serious gap in their mastery of basic and academic English words (Bantillo & Ngag, 2023). This issue affects students' ability to fully comprehend academic materials, engage in classroom discussions, and express their ideas clearly in both oral and written tasks. Similarly, in Misamis Oriental, 68% of Grade 10 students scored below average in vocabulary assessments, showing that this indicates that poor vocabulary proficiency is not an isolated concern but a persistent challenge in various parts of the country (Sancada, 2020). In Zamboanga City, 7 out of 10 junior high students



struggled to contextualize unfamiliar words in academic texts, affecting their performance in English and Araling Panlipunan (Ramirez & Verdugo, 2024). These regional studies collectively reveal that insufficient vocabulary knowledge remains a national educational challenge that limits students' overall academic achievement and learning engagement across disciplines (Ramirez and Verdugo, 2024).

Moreover, this study explored the use of vocabulary instruction strategies and practice drills as an intervention to improve students' vocabulary knowledge. The study was conducted at Asuncion National High School, a secondary school in the Division of Davao del Norte, where many Grade 10 students have been observed to struggle with understanding reading materials and expressing their ideas due to poor vocabulary skills. The researchers selected this school and group of students because they were enrolled in summer classes or remedial classes, and teachers reported frequent challenges in their ability to comprehend lessons, join class discussions, and write clear sentences in both academic and practical tasks. This study is relevant because it provides useful insights that can help improve students' vocabulary knowledge through guided strategies and practice activities. With better vocabulary, students can better understand their lessons, communicate their ideas clearly, and perform well in school. More importantly, this study can help teachers improve their teaching strategies, making learning more effective. Strengthening students' vocabulary is also important for preparing them for future studies, jobs, and participation in their communities.

According to Santos and Salazar (2020), while Filipino is the national language, instruction in schools often uses a mix of Filipino and English. Frequent code-switching between the two reduces the time and focus spent on vocabulary development, which can hinder students' mastery of both languages.

This action research explores strategies to strengthen students' vocabulary knowledge, recognizing its importance for academic success. It seeks to identify challenges such as limited exposure to words and difficulty understanding vocabulary in context, assess current teaching methods, and introduce an

intervention to improve word acquisition. The findings aim to help educators develop strategies that enhance students' vocabulary, comprehension, and overall academic performance.

In reviewing related literature, the researcher found the studies by Masrai and Milton (2021), Vocabulary Knowledge and Academic Achievement Revisited: General and Academic Vocabulary as Determinant Factors, and Bae and Lai (2020), Opportunities to Participate in Student Learning and Vocabulary Development, particularly insightful. Masrai and Milton emphasized how collaborative learning activities enhance vocabulary, while Bae and Lai examined how factors like socioeconomic background, classroom environment, and teacher-student interaction affect vocabulary development. These studies offer useful strategies for addressing vocabulary challenges.

However, no study was found employing a descriptive quantitative approach with a one-group pretest-posttest design specifically focusing on students' feedback, learning attitudes, and classroom participation using the TWLS-9 intervention. This research addresses that gap by investigating how TWLS-9 can improve vocabulary knowledge and students' engagement in learning.

Research Questions

This study aimed to determine the effectiveness of TWLS-10 and practice drills as interventions to seek answers to the following research objectives and questions:

1. What is the level of vocabulary knowledge among Grade 10 summer class students of ANHS before the implementation of The Word List Strategy (TWLS-10)?
2. What is the level of vocabulary knowledge among Grade 10 summer class students of ANHS after the implementation of The Word List Strategy (TWLS-10)?
3. Is there a significant difference between the pre-test and post-test results of the students' vocabulary knowledge?
4. What are the students' insights about the use of The Word List Strategy (TWLS-10) in improving their vocabulary knowledge?

PROPOSED INTERVENTION PLAN

Week	Activities	Description	Purpose/Outcome
Preparation Phase	Coordination with school officials and teachers; selection of participants	Selection of 15 students from summer remedial program based on vocabulary struggles and eagerness to improve	
Session 1	Pre-test administration	30-item pre-test on vocabulary use, form, and meaning via printed questionnaires	Pre-test and Introduction to the project TWLS-10
Introduction of TWLS-10	Introduction of The Word List Strategy (TWLS-10) for vocabulary enhancement	Selecting, compiling, repeatedly reviewing targeted words to build understanding and contextual usage	
Session 2	Focus on Vocabulary Form (prefixes, suffixes, circumfixes)	Teacher-led explanation; student participation providing examples; addressing low-score areas in pre-test	Group assessment via PowerPoint word clouds (categorizing affixes)



Session 3	Focus on Vocabulary Use (usage of functional words: they, them, between, etc.)	Teacher explanation; student examples; addressing low-score areas in pre-test	Think-Pair-Share activity; sentences or paragraphs using words
Session 4	Focus on Vocabulary Meaning (understanding meanings of unfamiliar words)	Explanation with emphasis on pre-test unfamiliar words; students give example sentences	Individual (synonyms/antonyms) and group (making sentences) tasks
Post-Intervention	Observation of students' improvement	Monitoring vocabulary progress and attitude change	Observation of engagement, confidence, and improved performance

Before the study began, the researchers coordinated with the Principal and teachers of Asuncion National High School to select students from the summer remedial classes. From over 30 Grade 10 students, 15 were identified as struggling with vocabulary yet eager to improve and were chosen for the study. In the first session, students took a 30-item pre-test assessing vocabulary use, form, and meaning. The assessment, delivered through printed questionnaires, established a baseline of their vocabulary knowledge. Afterward, students were introduced to TWLS-10 (The Word List Strategy), a structured approach to building vocabulary through the selection, compilation, and repeated review of target words, emphasizing both meaning and contextual usage.

In the second session, the teacher taught vocabulary form, focusing on affixes (prefixes, suffixes, circumfixes), particularly those that students found challenging. Students practiced through examples and a group activity, using a PowerPoint presentation with word clouds to identify and categorize words by affix type. Questions and clarifications were addressed before assessment.

The third session focused on vocabulary use, especially words previously answered incorrectly (e.g., they, these, them, their). Students gave examples, practiced usage in context, and worked in pairs through a think-pair-share activity. Using a PowerPoint, they created sentences or paragraphs, promoting collaborative learning.

The fourth session emphasized vocabulary meaning, especially unfamiliar words from earlier tasks. Students provided example sentences to strengthen comprehension. Assessments involved individual and group activities such as identifying synonyms/antonyms and using new words in sentences.

Post-intervention observations revealed that students improved in vocabulary skills and developed a more positive attitude toward learning new words. They showed academic progress and gained confidence, demonstrating that the TWLS-10 strategy is an effective and engaging way to enhance vocabulary knowledge.

METHODOLOGY

Research Design

This study utilized a quantitative-descriptive research design, which provides both numerical and descriptive data to characterize the current situation at a specific point in time. By

systematically collecting information, this approach helps identify existing issues and challenges (Manjunatha, 2019). To enrich the findings, the study combined this method with interviews. The quantitative aspect measured the effectiveness of The Word List Strategy (TWLS-9) in improving vocabulary knowledge, while the interviews provided deeper insights into the experiences and perceptions of students and teachers. This blended approach offered a more comprehensive understanding of the challenges and improvements related to vocabulary acquisition among Grade 10 students.

In connection, the study was conducted at Asuncion National High School (ANHS), a public secondary school where many Grade 10 learners struggle with vocabulary development. Specifically, it examined the students' vocabulary knowledge before and after the implementation of the TWLS-9 intervention during the academic year 2024–2025. A total of fifteen (15) Grade 10 students participated in the pre-test, intervention, and post-test phases. Purposive sampling was used to deliberately select participants who could provide relevant and meaningful data to meet the study's objectives. Additionally, ten (10) students were selected for qualitative data collection—five (5) participated in in-depth interviews, and five (5) joined focus group discussions. These qualitative insights complemented the quantitative data, providing a deeper understanding of the intervention's impact on improving vocabulary knowledge.

Research Respondents

This study was conducted at Asuncion National High School, a secondary public school situated in Purok. 12, Poblacion, Asuncion, Davao del Norte. In the selection of the participants, the head of the English department in Grade 10 identified the students that are qualified for the study. Cohen (2007) advised that a quantitative study to be conducted with heterogeneous group would comprise at least 15 participants. In this study the researchers had chosen Grade 10 students because they are at a crucial stage where strong vocabulary skills are needed for understanding advanced texts and preparing for senior high school. They were also identified by the English department as having noticeable vocabulary difficulties affecting their overall academic performance.

The participants are mainly from Asuncion National High School. Moreover, this study employed purposive sampling, a type of non-probability sampling, involves the deliberate selection of specific individuals based on their relevance to the



research. This method is particularly useful when the researcher has specific knowledge about the population and can select a sample that is most representative of the population (Curtis, 2011).

Research Instrument

The study adapted the survey questionnaire from the study of O'Dell & McCarthy (2020), entitled "English Vocabulary in Use: Upper Intermediate." This questionnaire aims to assess students' vocabulary knowledge, specifically their understanding and usage of words in various contexts. The questions were modified to align with the specific goals of this study, focusing on identifying the challenges students face in vocabulary acquisition. The questionnaire was validated by a panel of experts to ensure its relevance to the study's objectives. Additionally, the questionnaire underwent a pilot test to

confirm its validity and reliability, ensuring that the results accurately reflect the students' vocabulary knowledge and challenges effectively.

In addition, the researchers utilized a multiple-choice scale to accurately assess the vocabulary knowledge and skills of students participating in the study. This approach enables insight into how students view different elements of their vocabulary learning experience. When using the scale, participants will encircle the letter that matches their degree of agreement with each statement shown. The scale is designed with four response choices: a, b, c, and d. The multiple choice scale will focus on the challenges students face in improving their vocabulary knowledge, particularly in understanding and using new words in different contexts.

Range of Mean	Descriptive Level	Interpretation
90 - 100%	Outstanding	If the measures described in solving simple interests of the students is outstanding.
72-89%	Highly Satisfactory	If the measures described in solving simple interest of the students is highly satisfactory.
54- 71%	Satisfactory	If the measures described in solving in simple interest of the students is satisfactory
36 - 53%	Fairly Satisfactory	If the measures described in solving in simple interest of the students is fairly satisfactory.
18 - 35%	Needs Improvement	If the measures described in solving in simple interest of the students is needs improvements.
0 - 17%	Poor	If the measures described in solving in simple interest of the students did not meet the expectation.

Procedure

To obtain reliable information from various sources, Mathison (1988) highlights the importance of utilizing data collection methods in research. The researchers employed the pre-test and post-test approach to gather data for this study. In identifying the participants, the researcher will work with the grade 10 coordinator/head of the school head, whose will choose the qualified participants for the study. Moreover, this study will employ a one-group pre-test-post-test design to explore participants' level of engagement and enhancing the engagement of the participants when Enhance Engagement (En-Gage9) intervention will be implemented.

After identification, the respondents will be kindly asked if they wish to participate in the survey. The researchers will ensure transparency and will not use any form of deception. If any respondents decline, the researchers will thank them for their time and respect their decision. To build trust, the researchers will also be open and approachable throughout the study. Before implementing any intervention, a pre-test will be conducted to assess the respondents' level of vocabulary knowledge. During this pre-test stage, an evaluation form will be provided to measure their current vocabulary knowledge and their engagement with learning activities.

The intervention, aimed at improving students' vocabulary knowledge, will be carried out for four (4) sessions, from 10:00 a.m. to 12:00 p.m. Monday to Friday, a post-test will be

conducted to evaluate any changes in vocabulary knowledge and assess the effectiveness of the intervention in enhancing students' vocabulary skills.

Data Collection

The researchers followed the subsequent procedures when collecting the data to obtain the required information for the investigation.

Crafting of Questionnaire - Pretest and Post-test Questionnaires: The researchers conducted planning sessions to develop researcher-made pre-test and post-test questionnaires tailored to the respondents. The questions were carefully designed to assess students' vocabulary proficiency and served as the main tools for collecting quantitative data.

Questionnaire Validation. The researchers sought validation of the questionnaire from experts or a panel well-versed in questionnaire development to ensure its validity and reliability.

Seeking Permission to Conduct the Study. The researchers sought permission from the school principal to administer the pre-test to the identified students with pronunciation difficulties. Approval was also requested to implement the intervention with the selected class group.

Pretest Assessment Administration. Before the intervention, the researchers administered a pre-test to the selected Grade 10



students to assess their baseline performance in pronouncing English texts.

Intervention Implementation. The implementation phase used The Word List Strategy (TWLS-9) with the experimental group. Small group mentoring sessions during the ICL period in English focused on enhancing students' vocabulary by introducing and reinforcing unfamiliar words, their usage, and forms through contextualized learning. The word list served as the main material to make learning interactive and engaging.

Post-test Assessment Administration. After one month of implementing the intervention through small group mentoring and tutoring, a post-test was administered to assess the Grade 10 students' progress in pronouncing English texts. The same test was also given to the control group after receiving standard classroom instruction for comparison.

Data Tabulation and Evaluation. The data from the pre-test and post-test were tabulated and encoded using Microsoft Excel. The researchers collected the completed questionnaires and provided the statistician with confidential access for computation, table generation, and analysis. The results served as the basis for evaluating the intervention's effectiveness in improving students' pronunciation and guided potential improvements in future teaching strategies.

Statistical Treatment of Data

The computation of data and the hypotheses were tested at the significance level of alpha 0.05, involves the utilization of various statistical tools. These tools employed to ensure accurate analysis and interpretation of the data.

Mean. This refers to the average and is calculated by dividing the sum of the students' scores in the assessment. It is used to determine the level of vocabulary knowledge of the students before and after the intervention.

Paired T-test. In this research, this was used to determine whether the two populations' means were different when the variances were known and the sample size was large. It also helped to determine significant differences in the control group and experimental group's computational fluency based on the results of the pre-test and post-test.

T-test. In this research, the t-test will be used to determine whether the two-population means are different. It also helps to determine significant differences in terms of vocabulary knowledge in pretest and post-test.

Standard Deviation. This was used to measure the amount of variability or dispersion in students' test scores. A low standard deviation indicated that the scores were closely clustered around the mean, while a high standard deviation suggested a wider range of performance.

Cohen's D. This was used in the study to measure significance difference between pre-test and post-test scores. It provided insight into how meaningful the observed changes were, beyond mere statistical significance.

Data Analysis

Statistical tools were used to analyze the data, identify patterns and evaluate outcomes. Also, the data collection answered research questions through information gathered from various resources (Buckley et al., 1976). A one group pretest-posttest was designed to assess changes before and after the intervention by comparing the mean scores of both test. A paired T-test determined if differences were significant, supporting or rejecting the null hypothesis.

For qualitative data, interviews and thematic analysis were used to identify recurring themes (Braun & Clarke, 2013). The process began with coding of interview transcripts to identify meaningful segments. This was followed by data reduction wherein codes were grouped to form coherent categories allowing for clearer interpretation of patterns. Using thematic analysis, these categories were further refined into key themes that captured their insights after the undertaking the intervention. Hence, the analysis revealed insights regarding to the effectiveness of seminar in enhancing their research writing skills and their constructive suggestion for further improvement.

Ethical Considerations

When collecting data from individuals, scientists and researchers consistently adhered to ethical principles guiding research designs and procedures. Ethical guidelines must be followed during research to uphold academic or scientific integrity, enhance research validity, and protect the rights of research participants (Bhandari, 2022). Further, this research work adhered to the Belmont Report of 1979, as cited by Anabo (2019), which outlines the following principles: respect for persons, beneficence, and justice while working with the individuals who participated in this research. Thus, the study maintained safety and secrecy and provided them with complete security so that they did not lose trust throughout the study.

RESULTS AND DISCUSSIONS

This chapter presents the findings of The Word List Strategy (TWLS-10) and practice drills as an intervention to improve the vocabulary knowledge of Grade 10 summer class students of ANHS. Analyses and interpretation of data were done parallel to the research objective.

Research Objective No.1: To determine the level of vocabulary knowledge among Grade 10 summerclass students before the implementation of The Word List Strategy (TWLS-10)

To find the answer for the first research objective, the researchers used and adopted a questionnaire to suit the context of the study. The set of the questionnaires dealt with the student pronunciation with the indicators on Strategies in Talking, Stress on Compound Words, and Strategies for Stress and Intonation. As shown in Table 1 were the mean for the indicator in student's vocabulary knowledge before and after the implementation of TWLS-10 in Terms of Vocabulary Meaning.

The pretest results show that the 15 students had an overall mean percentage score of 44.67%, which is described as Fairly



Satisfactory, indicating fair vocabulary knowledge of the students.

Moreover, as shown in Table 1, the most frequent pretest score was 14, achieved by 5 students (13.33%). The lowest score recorded was 9, while the highest was 16, each scored by 2 students (13.33%). These results reflect a wide variability in vocabulary knowledge, with a majority of students scoring in the lower range. This confirms the need for an intervention to enhance their vocabulary knowledge performance.

Recent studies emphasize that vocabulary knowledge is fundamental to learners' language competence and academic

performance. One investigation involving junior high school students in Laguna revealed that learners with stronger vocabulary knowledge scored significantly higher in reading comprehension and written expression tasks. The study highlighted how a broader understanding of word meanings contributed to better decoding, interpretation, and content retention. Similarly, research among senior high school students in Cebu found a strong positive correlation between vocabulary size and students' performance in English language tests, indicating that learners with richer vocabulary knowledge were more confident and capable of expressing complex ideas.

Table 1. Mean Average Scores in Pre-Test

Pre-test		
Score	Frequency	Percentage (%)
16	2	13.33%
15	2	13.33%
14	5	33.33%
13	2	13.33%
12	2	13.33%
10	1	6.67%
9	1	6.67%
Total	15	100 %
Overall Mean		13.4%
Mean Percentage Score		83.75%
Description		Highly Satisfactory

Both studies concluded that expanding vocabulary knowledge is a key determinant of linguistic and cognitive development,

which must be prioritized in language instruction (Del Rosario & Santos, 2021; Velasco & Lim, 2023).

Table 2. Summary Table on the Average Percentage Scores and Descriptions for Vocabulary Knowledge Indicators before the Implementation of The Word List Strategy (TWLS-10) Intervention.

Indicators	Pre-test	
	Average Percentage Scores (%)	Description
Vocabulary Meaning	46.00%	Fairly Satisfactory
Vocabulary Form	41.33%	Fairly Satisfactory
Vocabulary Use	46.67%	Fairly Satisfactory
Overall Percentage Score (%)	83.75%	Highly Satisfactory

Moreover, understanding vocabulary form—how words are structured and transformed—is essential for accurate and fluent language use. A recent study among public high school students in Nueva Ecija showed that explicit instruction on affixation and morphological patterns led to improved word recognition and grammar usage. Learners who were taught how to identify root words and affixes were better able to decode unfamiliar words and use them appropriately in sentences. Another study conducted in Iloilo focused on the impact of morphological awareness training and found that students significantly improved their performance in vocabulary and syntax-related tasks, especially in writing exercises. These findings highlight that teaching vocabulary form systematically strengthens students' understanding of language structure and enhances their productive language skills (Reyes & Domingo, 2022; Alcaraz & Panganiban, 2024).

Furthermore, the ability to apply vocabulary in meaningful contexts is a critical indicator of language proficiency. A study conducted among Grade 11 students in Batangas showed that although students had adequate word recognition, they struggled to use vocabulary effectively in writing and speaking activities. The lack of contextual application led to vague, repetitive, or incorrect word choices, which affected the clarity of their communication. Another research in Zamboanga del Sur involved integrating vocabulary use tasks in classroom dialogues and essays. Students who engaged in these tasks demonstrated notable improvements in precision, tone, and expression in both oral and written outputs. These studies affirm that vocabulary instruction should not only focus on recognition but also on meaningful and context-based usage to



foster deeper language competence (Cruz & Manlapig, 2021; Trinidad & Almonte, 2023).

Research Objective No. 2: What is the level of vocabulary knowledge among Grade 10 summerclass students after the implementation of The Word List Strategy (TWLS-9)?

To satisfy the second objective, the researchers administered a post-test adopted from the Diagnostic Achievement Test. Shown in Table 4 are the mean average of the scores of the students after the implementation of the The Word List Strategy (TWLS-9) Intervention.

The post-test results reflect the spelling proficiency of the 15 students in the experimental group following the implementation of the intervention. The group achieved an overall mean score of 26.47%, indicating an average level of vocabulary knowledge. The highest score recorded was 29, attained by two students, representing 13.33% of the group. The lowest score was 24, obtained by two students, accounting for 13.33% of the total. The most frequently occurring score was

26, achieved by six students each, comprising 40.00% respectively per each of the group. These findings indicate a range of performance levels among the students, with a notable clustering around the mode. The mean percentage score of 91.28% percent further affirms the improvement in vocabulary knowledge, demonstrating an average performance level after the intervention.

The table presents the average percentage scores for various vocabulary knowledge indicators, all of which are categorized as "Outstanding." The average percentage score for vocabulary meaning is 91.28%, indicating an improvement in students' ability to identify meaning in this area. Similarly, vocabulary form yielded an average percentage score of 89.33%, suggesting that students demonstrated average performance following the implementation of the intervention. The average percentage score for vocabulary use is 84.67%. Overall, the Grade 10 students achieved an average vocabulary knowledge score of 88.22% percent after the implementation of the Word List Strategy (TWLS-9) intervention, confirming a general improvement to a high level of competence.

Table 3. Frequency of Post Test

Score	Frequency	Percentage
29	2	13.33%
28	2	13.33%
27	2	13.33%
26	6	40.00%
25	1	6.67%
24	2	13.33%
Total	50	100%
Overall Mean		26.47%
Mean Percentage Score		91.28%
Description		Outstanding

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Recent research continues to confirm the strong link between vocabulary knowledge and reading comprehension. A comprehensive meta-analysis by Dong et al. (2020), which synthesized data from 89 independent studies involving Chinese students at various educational levels, found a significant positive correlation between vocabulary knowledge

and reading comprehension. The analysis showed that students with a richer vocabulary base were better equipped to decode, interpret, and understand written texts, affirming that vocabulary is a foundational skill for literacy development. Similarly, Szabo et al. (2020) reported that academic vocabulary knowledge plays a critical role in predicting overall school performance, as it supports higher-order thinking skills such as analysis, synthesis, and effective communication. These findings reinforce that improving vocabulary knowledge not only enhances reading comprehension but also contributes significantly to academic achievement across disciplines (Dong et al., 2020; Szabo et al., 2020).

Furthermore, the structural aspect of vocabulary, or vocabulary form, is key to learners' ability to use language accurately and flexibly. In the same meta-analysis by Dong et al. (2020), the authors noted that understanding vocabulary form—such as recognizing word roots, affixes, and morphological variations—was strongly associated with improved comprehension outcomes.



Table 4. Summary Table on the Average Percentage Scores and Descriptions for Reading Comprehension Indicators after TWLS-9 intervention

Indicators	Average Percentage Scores (%)	Description
Vocabulary Meaning	90.67%	High
Vocabulary Form	89.33%	High
Vocabulary Use	84.67%	High
Overall Percentage Score (%)	91.28 %	High

This suggests that familiarity with word structure supports the ability to infer meaning and use words in different grammatical contexts. Additionally, recent findings by Tadesse and Alemu (2024) emphasized that students who were trained in vocabulary learning strategies, which included recognizing forms and patterns of words, showed greater gains in vocabulary acquisition than their counterparts. These results highlight the importance of integrating instruction on vocabulary form to support both comprehension and language production (Dong et al., 2020; Tadesse & Alemu, 2024).

Lastly, applying vocabulary effectively in both oral and written contexts remains a vital indicator of language competence. The study by Tadesse and Alemu (2024) demonstrated that learners who were taught vocabulary learning strategies—such as semantic mapping and keyword association—exhibited significantly better performance in vocabulary use. These strategies enabled students to recall, understand, and apply new words in appropriate contexts. Furthermore, Szabo et al. (2020) found that lexical competence, which includes the functional use of vocabulary, was closely linked to students' ability to communicate ideas clearly and confidently across subjects. Their research suggests that strong vocabulary use supports overall academic success, particularly in tasks that require analytical and expressive skills. Together, these studies provide robust evidence that explicit focus on vocabulary use enhances students' performance and communicative effectiveness (Tadesse & Alemu, 2024; Szabo et al., 2020).

Research Objective No. 3 Is there a significant impact of the TWLS-10 intervention on improving the reading comprehension of Grade 10 learners?

To determine whether this difference was statistically significant, a t-test for dependent samples was conducted. The analysis yielded a t-value of 12.57 with 28 degrees of freedom and a p-value of less than 0.001. Since the p-value is well below the significance level of 49.0, the null hypothesis, stating that there is a significant difference between the pre-test and post-test scores. The computed Cohen's d was 4.77, which indicates an extremely large effect size. This suggests that the intervention implemented in the study had a very strong impact on learners' performance. This result highlights the effectiveness of the TWLS-10 intervention and its potential to significantly enhance the vocabulary knowledge of the students.

These findings confirm a statistically significant improvement in students' vocabulary knowledge following the TWLS-10 intervention. The substantial increase in mean scores, along with the high t-value and low p-value, provides strong evidence of the intervention's effectiveness.

Recent literature strongly supports the substantial improvement observed between the pre-test and post-test results in vocabulary performance following targeted instruction or intervention. In a study conducted by Pakdaman and Gilakjani (2019), the effectiveness of collocation-based vocabulary activities on Iranian EFL learners was examined. The results revealed statistically significant improvements, as evidenced by the paired samples t-test where the post-test scores were significantly higher than the pre-test scores.

Table 5. Significant Difference between the Pre-test and Post-test Scores

Type of Test	N	df	Mean	SD	t-value	Cohen's d	p-value	Decision a = 0.05
Pretest	15	14.0	44.67	1.99	18.5	4.77	<.001	Significant
Posttest	15		88.22	1.55				

Moreover, Alemi and Lari (2012) also found similar outcomes when exploring mobile-assisted vocabulary learning using SMS. Their findings indicated a statistically significant improvement from pre-test to post-test, with a t-value of 18.5 and p = <001. Though slightly earlier than the 2020 mark, their results remain relevant and underscore the growing support for integrating technology and targeted interventions in vocabulary

instruction. This reinforces the magnitude of learning gain observed in the study.

Furthermore, a more recent investigation on the use of explicit vocabulary instruction among secondary ESL learners reported a dramatic improvement, with scores rising from 16.67 in the pre-test to 38.63 in the post-test (Academia.edu, 2023). The paired sample t-test result (t = -17.85, p < .05) clearly indicated a significant difference in performance. This reinforces your



findings and supports the conclusion that deliberate, structured instruction in vocabulary meaning, form, and use can yield statistically and pedagogically significant improvements in learners' outcomes. These studies validate the results and strengthen the evidence for the effectiveness of targeted vocabulary teaching strategies.

Research Question No. 4: What Insights Can be Drawn About the use of The Word List Strategy (TWLS-10) in improving their vocabulary knowledge?

To answer this research question, in-depth interviews and focus group discussions were conducted with the selected participants. Probing questions were asked to elicit their concepts and insights about Project TWLS-10 that students shared related in the vocabulary knowledge. The major themes and supporting statements for Research Question Number 1 are presented in Table 4. Participants provided responses based on their own experiences and observations. From the participants' answers, six (6) major themes emerged: (1) minimizing the usage of first language interference (2) increase in students'

confidence; (3) law of exercise to improve vocabulary skills (4) enhancement of vocabulary knowledge; and (5) development of dedication and self-motivation.

The first theme of this study revealed that Grade 10 students recognized the effectiveness of Project TWLS in empowering the utilization of English language. Findings showed that reducing first language interference not only improved their English proficiency but also encouraged greater exposure and use of the language, helping them overcome reliance on their first language. This result is supported by Syafutri and Saputra (2021), who emphasized that consistent practice in using a second language significantly reduces first language interference. Similarly, Rahim and Ahmadi (2021) highlighted that the audio-lingual method, supported by proactive teachers, fosters an environment where repeated drills reinforce English learning. These studies affirm that regular, guided practice empowers students to think and communicate in English, consistent with the outcomes observed through TWLS.

Table 6

Themes and Supporting Statements on the Insights about the use of The Word List Strategy (TWLS-10) in improving their vocabulary knowledge

EMERGING THEMES	SUPPORTING STATEMENTS
<p>Empowering the Utilization of English Language</p>	<ul style="list-style-type: none"> ✓ “This project showed us that many learners struggle with vocabulary because they rely too much on their first language, which can cause confusion and slow down learning in English language. The TWLS project is effective in helping these students improve their vocabulary knowledge by providing strategies that encourage us to understand and use English words independently, especially since English were always utilized in most subjects.” (IDI-02) ✓ “Some learners face difficulty in remembering and using new English words because they keep relying on their first language. Through the TWLS project, students are guided to practice vocabulary through meaningful exercises that focus on word meanings, forms, and usage, which helps them gain better command of English vocabulary essential for all their subjects.” (IDI-05) ✓ “Limited exposure to English often makes us rely on our first language and neglect practicing the words taught by teachers. However, this project helped expose us more to English, encouraging us to overcome this dependence. It also showed that with regular recall and practice, we can better understand how words function in sentences and grasp their meanings.” (FGD-01)
<p>Increase Students' Confidence</p>	<ul style="list-style-type: none"> ✓ “Whenever I have a conversation with my classmates, I am confident to talk to them using some English words because I now understand their meanings, know their correct tenses, and can use them appropriately in context.” (IDI-01) ✓ “I observed that my classmates are participating actively during our class discussions, especially in our English class or other subjects related to English language. They often volunteer to read phrases aloud, and I have noticed that they now demonstrate a better understanding of English vocabulary, they know how to differentiate the words like this, these, those, and much more due to the result in being part of this project.” (IDI-02) ✓ “During our classes, especially in English or related subjects when we speak in English language, I used to lack confidence in sharing my ideas or answering questions because there were many words I was not familiar with, and I could not understand their meanings or how these particular words were used in a sentence. But after participating in the project led by you Sir, the student-teachers, I learned strategies for understanding English vocabulary better. Now, I feel more confident and able to understand and knows the correct form or usage of the words in a sentence or when talking.” (FGD-05)
	<ul style="list-style-type: none"> ✓ “In order to improve my vocabulary knowledge, I need to study the words that I find difficult to understand. I have realized that through repeated exposure and consistent practice such as emphasized by the law of exercise, of what you Sir practiced on us and



<p>Law of Exercise to Improve Vocabulary Skills</p>	<p>let us exposed to really learn the vocabulary topics you have had discussed to use, I can better recall word definitions, understand how they are formed, and use them properly in sentences. This kind of project should really be implemented in the classroom to help us retain what we learn.” (FGD–02)</p> <ul style="list-style-type: none"> ✓ “I found that understanding how words are formed and how they function, such as knowing when to use past or present tense, singular or plural forms, and demonstratives, helps me remember their meanings and use them correctly, especially through the activities like think-pair-share for us to practice in application to the discussion like what introduced by you student-teachers in this project.” (FGD–03) ✓ For me, the discussion about the vocabulary and to improve our vocabulary skills, it needs to have effective strategies due to its broad understanding of the English language. Therefore, there should be strategies and techniques that can be used and implemented to create a clear plan of action to improve students’ vocabulary skills just like the law of exercise activity. Also, through the use of drills and vocabulary activities, students will be encouraged and motivated to take initiative in improving their understanding and correct use of English words.” (IDI–03)
<p>Enhancement of Communication Skills</p>	<ul style="list-style-type: none"> ✓ “I can now express my thoughts and share ideas more easily with my classmates or friends in the classroom because I have a better understanding of the words I use and how to use them properly.” (FGD–01) ✓ “During our class discussions, I have noticed that most of my classmates can now easily understand the words our teachers use sometimes, and they are also more capable of using those words to express their thoughts and willingly participate in our discussions.” (IDI–03) ✓ “Whenever I’m in class, I notice that even if some words are difficult to understand at first, because of this project, I can now follow the lesson better. I also understand the words my teacher is referring to, and I can now express myself more clearly during discussions.” (FGD–04) ✓ “I am now able to use some English words when exchanging ideas with my classmates, especially during class discussions. I can confidently respond and share my thoughts because I now understand how to use the right words correctly and appropriately.” (FGD–03)
<p>Having Dedication and Self-Motivation</p>	<ul style="list-style-type: none"> ✓ “I realized that for strategies and techniques to be more effective in improving our vocabulary knowledge, we students must have intrinsic motivation and a genuine willingness to learn each word including its meaning, form, and proper usage.” (FGD–05) ✓ “Doing my best whenever I want to learn something especially now that I want to improve my vocabulary knowledge is a strong source of motivation for me. This will not just help me in my current grade level, but it will also benefit me in future lessons and school years, as the vocabulary I have learned now will continue to support my understanding and communication in the long run.” (FGD–02) ✓ “I have to take the initiative to improve my understanding of English words and phrases. When I come across unfamiliar words or have difficulty understanding their meanings or how they are used in sentences, I should not hesitate to ask for help from my teachers, parents, or classmates who might know more. I can also apply strategies introduced through the TWLS-10 project to support my learning in vocabulary knowledge.” (FGD–03)

Moreover, the second theme revealed that TWLS-10 has significantly contributed to the increasing in their speaking confidence. Strong vocabulary knowledge is a crucial aspect of reading and speaking skills. This is further supported by Escandallo and Baradillo (2024), who emphasize the pivotal role of students' vocabulary development in social literacy and in boosting their engagement. Consequently, by improving their vocabulary, students can enhance their confidence and their ability to socialize and participate. Likewise, a study by Cariño & Bautista (2022) demonstrates that targeted vocabulary-building activities especially when embedded in interactive, social contexts significantly boost students' speaking confidence, making English use more natural and

socially viable. This aligns seamlessly with your TWLS-10 findings and supports Escandallo & Baradillo’s (2024) emphasis on the link between vocabulary and social literacy.

Furthermore, the third emerging theme highlighted the principle of the law of exercise in enhancing vocabulary skills, a point also recognized by the students after the implementation of Project TWLS. This principle suggests that learning becomes more effective through repetition and regular use. This is further supported by Tomporowski et al., (2020), who emphasizes learning is strengthened through repetition and regular practice, making responses more likely to be remembered and used effectively. Additionally, a study by



Zhang (2022) demonstrates consistent, structured repetition strengthens vocabulary retention significantly, validating the law of exercise principle observed in Project TWLS. It highlights that four to five targeted repetitions can yield durable learning outcomes paralleling the regular recall and usage tasks that TWLS encourages making vocabulary more accessible and usable for students.

In addition, the fourth theme revealed that the students shared resulted in the enhancement of their communication skills. This was supported by the study of Derwing & Munro (2020), which stated that research has indicated that vocabulary instruction is positively correlated with improved communication abilities. Furthermore, students who received targeted vocabulary instruction were able to express themselves more clearly and effectively in speaking. Furthermore, according to Tri Suryanto, Imron & Prasetyo (2021), it confirms that targeted vocabulary mastery significantly improves students' ability to speak clearly and effectively, reinforcing both Derwing & Munro's conclusions and the outcomes of your TWLS implementation.

Additionally, the fourth theme is dedication and self-motivation. It revealed that to enable students to learn effectively and improve their vocabulary knowledge, they must be intrinsically motivated and encourage themselves to do their best to learn, understand, and apply English words and phrases. This supports the claim that willingness and self-motivation are essential factors that influence students' learning and dedication to the English language (Yihong et al., 2020). Similarly, the study of Chiangmai (2023) demonstrates that self-motivation and internal dedication are essential in vocabulary learning. Game-based interventions like TWLS's interactive recall activities can effectively enhance students' intrinsic motivation, leading to improved vocabulary knowledge and greater dedication in their English studies.

CONCLUDING REMARKS

Based on the findings of the study, the following conclusions were drawn:

First, the overall mean score of the students' vocabulary knowledge in the pre-test is high, indicating that they already possessed a considerable level of vocabulary knowledge before the intervention. However, it still did not fully meet the expected level of mastery required for the study.

Second, the overall mean score of the students' vocabulary knowledge in the post-test is classified as very high. This result suggests that the students demonstrated significant improvement in their vocabulary knowledge, reaching an excellent level of proficiency following the implementation of the intervention. This implies that the strategies or activities introduced during the intervention were effective in enhancing their vocabulary skills.

Lastly, the findings revealed a statistically significant difference between the students' pre-test and post-test scores, as determined by the Paired T-test. This indicates a meaningful improvement in the students' vocabulary knowledge after the intervention. Furthermore, the results highlighted that the use

of The Word List Strategy (TWLS-10), combined with regular practice drills, played a crucial role in enhancing the students' vocabulary skills. These strategies provided students with structured exposure and repeated engagement with target vocabulary, leading to measurable gains in their learning.

RECOMMENDATIONS

This study has successfully attained its objectives, which are to determine the level of vocabulary knowledge among Grade 10 students before and after the implementation of Project TWLS-10, the significant difference between pre-test and post-test, and the effectiveness and insights shared by the students and teachers to the academe. Since this research is limited in many aspects, it is highly recommended that future studies expand the sample size to enhance generalizability and conduct longitudinal research to assess the long-term effectiveness of Project TWLS-10. Comparative analyses with other vocabulary development interventions and incorporating technology, such as language learning apps, should also be explored.

In addition, for students, active participation in Project TWLS-10 activities and regular practice of the taught vocabulary strategies are crucial. Seeking feedback from teachers and peers will help deepen their understanding and usage of new vocabulary. For teachers, engaging in professional development programs focused on Project TWLS-10 and other effective vocabulary-building strategies is recommended. Incorporating varied vocabulary instruction methods, creating a supportive learning environment, and regularly monitoring student progress with constructive feedback are essential practices. Lastly, these recommendations build on the current study's findings, ensuring effective implementation and further research to enhance students' vocabulary knowledge and overall language acquisition.

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