



Exploring the Vocabulary Learning Strategies of Intermediate-Level Students

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ABSTRACT: This study aimed to determine significant differences in the extent of vocabulary learning strategy use when categorized according to grade level and gender. The study employed a non-experimental quantitative research design, using the descriptive-comparative method and simple random sampling, with Mean, Independent Samples t-test, and Analysis of Variance (ANOVA) as statistical tools. Researchers used an adapted and validated survey questionnaire to gather data from the 45 target respondents. The results showed that the metacognitive strategy is used frequently, while the social and cognitive strategies are used moderately. It was also found that students' grade level and gender did not differ significantly in the extent of their use of vocabulary learning strategies. This may mean that other factors, such as individual learning preferences and teaching methodologies, might substantially influence the use of strategies. Future research may validate and extend the current findings requires studies with larger, more diverse samples across various educational contexts. Further investigation may explore the interplay of factors such as teaching methodologies, learner characteristics, and instructional materials

KEY WORDS: vocabulary learning strategies, intermediate-level students, quantitative research, descriptive-comparative method

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1. INTRODUCTION

Reading comprehension is a multidimensional construct that extends beyond mere word recognition to encompass the extraction of main ideas, discernment of facts and opinions, and the application of specific skills such as following directions, sequencing, and attending to details. Proficient readers actively monitor their understanding, employing strategies to resolve comprehension breakdowns when a text fails to make sense (Ngan, 2025). Conversely, struggling readers require explicit, tailored strategy instruction that aligns with their individual learning styles to facilitate meaning-making (Manyak et al., 2014). Research consistently emphasizes vocabulary knowledge as a significant predictor of reading ability, with learners' capacity to decode, recognize, and understand words playing a crucial role in effective comprehension (Ngan, 2025). Studies further indicate that advanced learners often employ more meaningful strategies, such as using context and real-world language, whereas beginning learners tend to adopt passive approaches reliant on memorization (맹수연 & Kyeong-Hee, 2007).

The urgency of vocabulary acquisition is emphasized by the Philippines' persistent challenges in global literacy assessments. According to the PISA 2022 results, the Philippines ranked among the lowest in reading proficiency, with an average score of 347, which is significantly below the OECD average (Royer & Sumayo, 2024). Only 24% of Filipino students reached Level 2 or higher in reading, indicating a widespread struggle to comprehend complex texts and handle abstract concepts (Kilat et al., 2024; Royer & Sumayo, 2024). Locally, the Philippine Informal Reading Inventory data consistently show a significant proportion of intermediate learners categorized at the "Frustration" and "Instructional" levels, where they struggle with basic fluency and word recognition (Casingal & Balaba, 2026; Tolibas, 2025).

This reading proficiency crisis is further compounded by lexical challenges. A study by Cantabaco et al. (2023) identified mother-tongue interference, limited vocabulary, and hesitation as significant contributors to speech disfluencies. This phenomenon, broadly understood as the influence of a first language on second-language acquisition, manifests at various linguistic levels and often leads to difficulties with grammar, pronunciation, and lexical access. Given that vocabulary knowledge mediates reading comprehension and that L1 interference can impede vocabulary acquisition and fluency, there is a critical need to examine and implement effective vocabulary learning strategies (VLS) that can mitigate these challenges in the Philippine educational context.

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This study is grounded in Information Processing Theory, which views vocabulary as a cognitive store that must be transferred from short-term to long-term memory through encoding and rehearsal (Ariffin et al., 2023). Complementing this is Schema Theory, which emphasizes that reading comprehension is an interactive process between the text and the reader's background knowledge (Royer & Sumayo, 2024). Within this framework, Schmitt's Taxonomy categorizes VLS into "Discovery" strategies (for initial word encounters) and "Consolidation" strategies (for long-term retention) (Kho et al., 2021). This study specifically examines how students in a rural, island-based context navigate these cognitive processes to bridge their lexical gaps.



Figure 1. Conceptual Framework of the Study

The main focus of this study is to determine the significant differences in the extent of vocabulary learning strategy use among intermediate-level students. Specifically, it sought to answer the following questions:

1. To what extent were the vocabulary learning strategies utilized in terms of:
 - 1.1 determination strategy;
 - 1.2 social strategy;
 - 1.3 memory strategy;
 - 1.4 cognitive strategy;
 - 1.5 metacognitive strategy?
2. Is there a significant difference in the extent of using vocabulary learning strategies when categorized according to:
 - 2.1 grade level;
 - 2.2 gender?

This research holds substantive value for multiple stakeholders within the educational ecosystem. For the Department of Education (DepEd), the findings provide empirical evidence that can inform the refinement of existing programs aimed at enhancing diverse vocabulary acquisition strategies among learners, thereby contributing to broader literacy initiatives. School administrators stand to benefit as well, as the study challenges them to critically examine and actively promote awareness of how vocabulary-learning strategies influence reading comprehension, ultimately fostering an environment in which pupils can expand their knowledge through sustained reading engagement. For English teachers, this research serves as a practical reference tool, offering diagnostic insights into students' current reading proficiencies and suggesting evidence-based adjustments to vocabulary instruction that can be applied directly in classroom settings. Finally, future researchers will find this study a valuable point of departure, as it provides a clear methodological framework and baseline data that can support replication, extension, or comparative inquiry on the same topic.

II. METHOD

Research Respondents

The study's respondents were forty-five (45) intermediate-level students in the selected schools of the Island Garden City of Samal. The researchers utilized a simple random sampling to select the respondents. In this sampling method, each population member has an equal chance of being selected. Delice (2010) noted that a sample size of 30-500 at a 5% confidence level is generally sufficient for many researchers.

Materials and Instrument

The researcher used a standardized questionnaire of Schmitt's (1997) vocabulary learning strategies (VLS). This questionnaire is designed for students who are learning English words and understanding their meanings. The questionnaire comprises forty-four (44) questions for the pupil to answer.

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The researcher used the five-point Likert-type scale to determine whether the strategies of determination, social, cognitive, memory, or metacognitive were frequently used. The Likert Scale is the key to understanding the mean score of VLS, whether the respondents are high, medium, or low strategy users.

Design and Procedure

The researcher used a non-experimental quantitative design, specifically a descriptive-comparative design. A descriptive comparative design, also known as a comparative descriptive research design, is a research methodology used in various fields, including social sciences, psychology, education, and more. This approach involves comparing different groups, variables, or conditions to describe and understand their similarities and differences. Cantrell (2011) describes this research design as both a function and a strategy for gathering accurate, objective, and interpretable data, making it easier to connect and see relations between variables.

This research design is deemed fit for our study as the descriptive comparative research design helps study students' vocabulary learning strategies by enabling the comparison of different student groups, such as identifying effective strategies, describing strategy preferences, understanding the impact of variables like gender or grade level, and enhancing the understanding of how students approach vocabulary acquisition in diverse contexts.

The data-gathering process followed a systematic sequence of five phases to ensure rigor and procedural compliance. Initially, the researcher secured formal authorization by submitting a written letter of permission to the school director and the school heads of Kaputian Elementary School, Aundanao Elementary School, and Tagpopongan Elementary School, requesting approval to conduct the study on vocabulary learning strategies. Upon receiving the necessary approvals, the researchers personally administered and distributed the structured questionnaires to the identified respondents, ensuring consistent delivery and clear instructions. Following completion, the questionnaires were retrieved at a schedule convenient to the participants, thereby respecting their time and availability while maximizing response completeness. Subsequently, the gathered responses were thoroughly collated, tallied, and systematically recorded to organize the raw data for analysis. Finally, the consolidated data were subjected to statistical treatment and interpretation, with the assistance of a qualified statistician, to address the research questions and derive meaningful conclusions aligned with the study's overarching objectives.

All responses obtained from the questionnaire were systematically tallied and encoded into a master data sheet to facilitate comprehensive analysis. To address the study's specific sub-problems, two primary statistical techniques were employed. First, the *mean* was utilized to determine the overall extent of vocabulary learning strategy utilization among intermediate-level students, providing a central tendency measure that summarizes their average response levels across the strategy categories. Second, Analysis of Variance (ANOVA) using the F-test was applied to examine whether significant differences exist in the extent of strategy use when respondents are grouped by grade level and school, thereby allowing the researcher to assess the significant differences of these demographic factors on vocabulary learning strategies utilization.

The researchers ensured that the study was conducted in accordance with ethical standards. It followed protocol and underwent examination. To ensure ethical considerations were met, the researchers followed the necessary processes in conducting the study.

III. RESULTS AND DISCUSSION

Extent of Using Vocabulary Learning Strategies

Table 1 below shows the extent of vocabulary learning strategy use. *Metacognitive strategy* received the highest rating ($M = 3.56$, $SD = 3.56$), indicating that students believe they are actively planning and monitoring their learning (Ariffin et al., 2023). This aligns with Bernardo's findings that awareness of metacognitive strategies accounts for a significant portion of the variation in Filipino students' reading proficiency (Bernardo & Mante-Estacio, 2023).

However, *social strategy*, which involves interacting with teachers or peers, often ranks lower ($M = 3.39$, $SD = .48$) in similar cohorts. This is concerning because meaningful social interaction is a primary driver of incidental vocabulary learning, in which the richness of contextual clues provided by others helps solidify word meanings more effectively than mechanical repetition (Tahir et al., 2025; Webb, 2008).

In addition, the utilization of *cognitive strategy* was described as medium ($M = 3.39$, $SD = .50$). Cognitive strategies do not engage learners in deep mental processing; rather, they are more mechanical, involving repetition and the use of reference materials (Schmitt, 1997). This moderate use suggests that students may not consistently employ techniques such as inferencing and elaboration. While Gustanti and Ayu (2021) found a positive correlation between cognitive strategy use and English proficiency test scores, and De La Paz et al. (2017) demonstrated the effectiveness of cognitive strategy instruction, Gibson (2016) argued that cognitive strategies are ineffective if students lack prior knowledge (schemata) to connect with new content. This may explain the moderate use, as facilitators must ensure students have foundational schemata before introducing complex concepts.

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Table 1. The extent of using vocabulary learning strategies

Vocabulary Learning Strategies	SD	Mean	Descriptive Equivalent
Determination Strategy	.46	3.53	High
Social Strategy	.48	3.39	Medium
Memory Strategy	.43	3.52	High
Cognitive Strategy	.50	3.39	Medium
Metacognitive Strategy	.55	3.56	High

Note: N = 45, M = Mean, SD = Standard Deviation

F-test showing the differences in the extent of using vocabulary learning strategies when analyzed according to grade level

Table 2 presents F-test results showing differences in the extent of vocabulary learning strategy use across grade levels. The lack of significant difference between Grades 4, 5, and 6 indicates a "plateau" in strategy development. This mirrors findings from Balisoro et al. (2025), who found that variation in reading literacy often occurs *within* grades rather than *between* them. This suggests that instructional approaches in the selected schools of Island Garden City of Samal remain standardized across the intermediate years, potentially failing to introduce more complex cognitive strategies as students mature. These results also align with previous research by Boardman et al. (2016), which conducted a similar study and found no significant differences in vocabulary learning strategies among grade levels. They suggested that factors other than grade level, such as individual learning preferences and teaching methodologies, might substantially influence strategy use.

Table 2. F-test showing the differences in the extent of using vocabulary learning strategies when analyzed according to grade level

Vocabulary Strategies	Learning	Grade 4		Grade 5		Grade 6		<i>F</i> (2, 42)	<i>p</i>	Decision on Ho
		M	SD	M	SD	M	SD			
Determination Strategy		3.38	.65	3.53	.33	3.67	.29	1.497	.236	Accept
Social Strategy		3.24	.60	3.45	.44	3.50	.37	1.231	.302	Accept
Memory Strategy		3.46	.50	3.53	.41	3.58	.40	.277	.759	Accept
Cognitive Strategy		3.21	.64	3.48	.49	3.51	.30	1.592	.216	Accept
Metacognitive Strategy		3.44	.63	3.70	.42	3.52	.59	.872	.425	Accept

Independent samples t-test showing the differences in the extent of using vocabulary learning strategies when analyzed according to gender

Table 3 presents the independent-samples t-test results showing differences in the extent of vocabulary learning strategy use when analyzed by gender. The finding of no significant difference between gender, $t(43) = .565$, $p > .05$, contradicts several studies from 2025. For instance, Tolibas (2025) and Bacus et al. (2025) found that females consistently outperform males in reading proficiency and the effectiveness of reading strategies. The uniformity in this study suggests that although male and female students in the selected school in the Island Garden City of Samal report using strategies at the same frequency, their qualitative application may differ, as Ng (2018) suggests that males often favor form-focused memory while females favor meaning-focused planning. Additionally, this aligns with findings from similar studies (Lee, 2019; Yudha et al., 2025), which demonstrated that gender had minimal impact on vocabulary learning outcomes, with males and females having comparable perceptions and performance levels.

Table 3. Independent samples t-test showing the differences in the extent of using vocabulary learning strategies when analyzed according to gender

Vocabulary Strategies	Learning	Male		Female		<i>t</i> (43)	<i>p</i>	Decision on Ho
		M	SD	M	SD			
Determination Strategy		3.44	.58	3.61	.27	1.243	.221	Accept
Social Strategy		3.32	.60	3.47	.31	1.015	.316	Accept
Memory Strategy		3.48	.49	3.57	.36	.741	.463	Accept
Cognitive Strategy		3.30	.65	3.51	.26	1.436	.158	Accept
Metacognitive Strategy		3.51	.58	3.60	.53	.565	.575	Accept

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IV. CONCLUSION AND RECOMMENDATION

Conclusion

1. Among the five vocabulary learning strategies, three are used frequently, while the remaining two are used moderately. The metacognitive strategy received the highest rating (high), while the social and cognitive strategies received the lowest (medium).
2. There were no significant differences in the extent of vocabulary learning strategy use when analyzed by grade level and gender. This means that different grade levels use similar strategies in vocabulary learning. Additionally, gender had minimal impact on the use of vocabulary learning strategies. Although male students are more likely to fall into the "frustration" reading level. Other factors, such as individual learning preferences and teaching methodologies, might substantially influence the use of strategies.

Recommendation

1. For the Department of Education, professional development may shift from strategy awareness to strategy efficacy. Training should equip teachers to guide students from using vocabulary strategies at an "Instructional" reading level to applying them independently with complex texts, moving beyond simple dictionary use toward deep encoding practices such as morphological analysis and contextual inference. Ongoing, research-grounded training enables teachers to continuously refine their skills, adapt to evolving educational needs, and build a responsive instructional toolkit that optimizes student language development and academic success.
2. For the school administrators, it is important to acknowledge that vocabulary strategy use does not vary significantly by grade level, so flexibility should take priority over standardization. Administrators may empower teachers to deliver personalized instruction by providing the autonomy and resources to tailor strategies to individual student preferences and learning styles. This includes funding professional learning communities focused on applying strategies to complex texts, investing in reliable ICT tools and technical support for digital vocabulary instruction, and providing access to boy-responsive resources and specialized training to address gender-based proficiency gaps.
3. Teachers may incorporate collaborative activities, discussions, and debates, which are essential for deepening vocabulary acquisition through contextual application and peer learning. Instruction should shift from usage to efficacy by teaching students how to apply vocabulary strategies to unlock meaning in complex texts, rather than merely identifying them. Teachers are also encouraged to integrate digital tools such as interactive word games and digital flashcards to boost engagement and provide immediate, corrective feedback for modern digital-native learners. Additionally, implementing boy-responsive strategies, including competition, kinesthetic tasks, and high-interest content, may address the higher rates of reading frustration among males and align instruction with their preferred learning styles.
4. For future researchers, validating and extending the current findings requires studies with larger, more diverse samples across various educational contexts. Further investigation may explore the interplay of factors such as teaching methodologies, learner characteristics, and instructional materials. Priority areas include comparing outcomes between deep-encoding instruction and definition-based approaches, evaluating the long-term effectiveness of specific digital tools and feedback mechanisms on vocabulary retention, and conducting in-depth studies on boy-responsive strategies to identify which practices are most effective and why, thereby providing actionable evidence for targeted interventions.

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VI. DISCLOSURE

The author reports no conflicts of interest in this work.

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