

Vocabulary Mastery and Public Speaking Confidence Among Grade 12 HUMSS Students: A Correlational Study

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ABSTRACT

This study examined the relationship between vocabulary mastery and public speaking confidence among Grade 12 Humanities and Social Sciences (HUMSS) students at Mantalongon National High School in Dalaguete, Cebu, Philippines. Using a quantitative correlational design, data were gathered from 117 respondents selected through simple random sampling from a population of 156 Grade 12 HUMSS students. Vocabulary breadth and receptive vocabulary, the Word Associates Test (WAT) for vocabulary depth, and the Productive Vocabulary Levels Test (PVLTL) for productive vocabulary. Public speaking confidence was assessed using the Youth Public Speaking Self-Efficacy Survey Tool grounded in Bandura's Self-Efficacy Theory. Descriptive statistics and Spearman Rank-Order Correlation were employed. The findings indicated that students demonstrated an overall low level of vocabulary mastery, characterized by intermediate breadth but negligible depth and restricted productive ability. In contrast, students exhibited a high level of public speaking confidence across all four sources of self-efficacy, with a composite mean of 3.82. Correlation analysis yielded a Spearman Rho of 0.152 ($p = 0.102$), indicating a very weak, statistically non-significant relationship between vocabulary mastery and public speaking confidence. These results suggest that vocabulary knowledge alone does not substantially predict speaking confidence, and that psychological and experiential factors play a more prominent role. The study highlights the need for integrated instructional approaches addressing both lexical development and socio-emotional learning.

Keywords: *vocabulary mastery, public speaking confidence, self-efficacy, HUMSS, correlational research, Philippines*

INTRODUCTION

Effective oral communication is a critical competency for senior high school students, particularly those enrolled in the Humanities and Social Sciences (HUMSS) strand in the Philippine K-12 curriculum. HUMSS learners are regularly required to deliver speeches, participate in debates, present research findings, and engage in academic discussions, all of which demand both linguistic proficiency and psychological readiness. Among the various components of language competence, vocabulary mastery is widely recognized as foundational to clear, accurate, and confident communication (Nation, 2001; Laufer & Nation, 1999).

Despite this theoretical consensus, empirical findings on the vocabulary-speaking confidence relationship remain inconsistent. Several studies have reported significant positive associations (Mulfrihani, 2025; Farhana et al., 2024; Adinata et al., 2024; Rakhman & Nurhadi, 2021), while others have found no significant correlation, suggesting that contextual, psychological, and population-specific variables moderate this relationship (Safitri & Trisno, 2024). Locally, Filipino senior high school students have been documented to experience persistent communication challenges — including limited vocabulary, speaking anxiety, and hesitation — yet the specific relationship between vocabulary knowledge and public speaking confidence in the Philippine senior high context remains underexplored, particularly in rural school settings (Bala & Tolentino, 2024; Eslit & Valderama, 2023).

Mantalongon National High School in Dalaguete, Cebu, a rural upland public school with limited access to English language enrichment resources, exemplifies the type of setting where such challenges are most consequential. Grade 12 HUMSS teachers have observed that students frequently struggle with limited vocabulary during oral activities, leading to hesitation and reduced confidence. This practical concern, combined with the broader research gap on vocabulary and speaking confidence in Philippine senior high schools, provides the impetus for the present investigation.

This study is theoretically anchored on two documentary frameworks. Nation's (2001) Vocabulary Learning Theory operationalizes lexical competence across four dimensions: vocabulary breadth, depth, receptive vocabulary, and productive vocabulary. Bandura's (1997) Self-Efficacy Theory conceptualizes public speaking confidence through four sources: mastery experiences, vicarious experiences, verbal persuasion, and physiological and emotional states. The integration of these frameworks allows for a holistic examination of how cognitive and affective dimensions of language learning interact in an oral communication context, consistent with the communicative competence perspective advanced by Canale and Swain (1980).

Specifically, the study sought to answer the following questions:

- (1) What is the level of vocabulary mastery of the Grade 12 HUMSS students in terms of vocabulary breadth, depth, receptive vocabulary, and productive vocabulary?
- (2) What is their level of public speaking confidence based on mastery experiences, vicarious experiences, verbal persuasion, and physiological and emotional states?
- (3) Is there a significant relationship between vocabulary mastery and public speaking confidence?

The null hypothesis (H_0) posits that there is no significant relationship between level of vocabulary mastery and the level of public speaking confidence of the Grade 12 HUMSS students at Mantalongon National High School.

METHODOLOGY

Research Design and Setting

A quantitative correlational research design was employed to examine the statistical relationship between vocabulary mastery and public speaking confidence without any manipulation of variables (Creswell & Creswell, 2018). The study was conducted at Mantalongon National High School, located in Barangay Mantalongon, Municipality of Dalaguete, Cebu, Philippines — a rural public school accessible only via a 30-minute habal-habal (motorcycle-for-hire) ride from Dalaguete town proper due to mountainous terrain.

Participants

The target population comprised all 156 Grade 12 HUMSS students enrolled during School Year 2025-2026, distributed across three sections: St. Isodor ($n = 54$), St. Agustin ($n = 55$), and St. Michael ($n = 57$). Applying Slovin's formula at a 5% margin of error, a sample of 117 respondents was determined (39 per section), selected through proportional simple random sampling using the lottery method to ensure unbiased representation across all sections.

Research Instruments

Vocabulary master was assessed using three adopted standardized instruments. The Vocabulary Size Test (VST) by Nation (2007), consisting of 140 multiple-choice items, measured vocabulary breadth and receptive vocabulary; raw scores were multiplied by 100 to estimate total vocabulary size in word families. The Word Associates Test (WAT) by Read (1993), a 40-item assessment requiring identification of both paradigmatic (synonym) and syntagmatic (collocation) word associations, measured vocabulary depth using dichotomous all-or-nothing scoring. The Productive Vocabulary Levels Test (PVLTL) by Laufer and Nation (1999), comprising 18 sentence-completion items at the 2,000-word frequency level, assessed controlled productive vocabulary ability through dichotomous scoring. Public speaking confidence was measured using the Youth Public Speaking Self-Efficacy (PSSE) Survey Tool developed by Nayak, Worker, and Marshall-Wheeler (2025), a 12-item instrument

grounded in Bandura's (1997) four self-efficacy sources, rated on a 5-point Likert scale (1 = Definitely False to 5 = Definitely True). All instruments were reviewed by the research instructor for clarity and appropriateness to the Grade 12 HUMSS level.

Data Gathering Procedure

Data collection was conducted over a three-week period following receipt of official authorization from the school principal. Respondents were oriented on the study's purpose, and voluntary written assent was secured before instrument administration. Researchers remained present throughout to clarify instructions without influencing responses. All completed questionnaires were immediately collected, coded numerically to ensure anonymity, and stored securely.

Statistical Analysis

Frequency and percentage distributions and weighted means were computed to describe the levels of vocabulary mastery and public speaking confidence. Prior to inferential analysis, normality was assessed using the Shapiro-Wilk and Kolmogorov-Smirnov tests. Results confirmed that composite vocabulary mastery scores were non-normally distributed (VST: $p = 0.003$; WAT: $p < 0.001$; PVL: $p < 0.001$; Composite: $p = 0.096$). Given the violation of the normality assumption for one variable, the Spearman Rank-Order Correlation Coefficient (ρ) was employed as the appropriate non-parametric alternative to assess the strength and direction of the relationship, with significance set at $\alpha = 0.05$ (two-tailed).

RESULTS

Level of Vocabulary Mastery

Vocabulary Breadth and Receptive Vocabulary (VST)

The majority of students fell within the Intermediate (52 students, 44.44%, score 31-50) and Upper-Intermediate (49 students, 41.88%, score 51-80) categories, with a mean score of 49.50 (Intermediate). Only 2 students (1.71%) reached the Advanced level and 1 student (0.85%) the Proficient level. This indicates that most students possess a vocabulary of approximately 3,100-5,000 word families, sufficient for basic daily communication but below the level required for complex academic discourse.

Vocabulary Depth (WAT)

Vocabulary depth results were markedly lower: 75.22% of students ($n = 88$) scored in the Negligible Depth category (score 0-10), 22.22% ($n = 26$) in the Developing Depth category, and only 2.56% ($n = 3$) at the Proficient Depth level. The mean score of 7.62 places the group at the Negligible Depth level, indicating that although students can recognize the general form of many words, they struggle to identify exact meanings, synonyms, and collocations accurately.

Productive Vocabulary (PVL)

Nearly half of the students (57 students, 48.72%) were classified at the Transitional level (score 13-18), 36 students (30.77%) at the Restricted level (7-12), and 24 students (20.51%) at the Fragmented level (0-6). The mean score of 11.35 places the group at the Restricted level, indicating that while students can recognize words passively, they experience difficulty retrieving and producing them accurately in speaking or writing contexts.

Table 1. Summary of Vocabulary Mastery Levels across Dimensions

Dimension	Instrument	Mean Score	Interpretation
Vocabulary Breadth & Receptive Vocabulary	VST	49.50	Intermediate

Vocabulary Depth	WAT	7.62	Negligible Depth
Productive Vocabulary	PVLT	11.35	Restricted

Table 1 reveals a pronounced recognition-production gap: students perform relatively better in vocabulary breadth (recognition-based) but demonstrate negligible depth and restricted productive ability. This profile indicates that lexical knowledge is largely passive — students can identify many words but cannot deeply understand their nuances or use them accurately in oral and written communication.

Level of Public Speaking Confidence

As shown in Table 2, students demonstrated a high level of public speaking confidence across all four self-efficacy sources, with an overall composite mean of 3.82. Mastery Experiences yielded the highest mean (4.02), followed closely by Verbal Persuasion (4.01), Vicarious Experiences (3.75), and Physiological and Emotional States (3.65), the last indicating that while students generally manage performance anxiety, mild nervousness and physical tension remain present.

Table 2. Level of Public Speaking Confidence across Self-Efficacy Sources

Source of Self-Efficacy	Mean	Interpretation
Mastery Experiences	4.02	High
Verbal Persuasion	4.01	High
Vicarious Experiences	3.75	High
Physiological & Emotional States	3.65	High
Overall Composite Mean	3.82	High Confidence

Table 2 presents a consistently high level of public speaking confidence across all four self-efficacy sources, with individual means ranging from 3.65 to 4.02 and an overall composite mean of 3.82. Mastery Experiences registered the highest mean (4.02), indicating that students draw the greatest confidence from their accumulated personal successes in oral tasks — a finding aligned with Bandura's (1997) proposition that direct performance accomplishments are the most powerful and stable source of self-efficacy. Verbal Persuasion ranked a close second (4.01), reflecting the significant role that encouragement from teachers and peers plays in shaping students' belief in their speaking ability, particularly within the socially reinforcing environment of the HUMSS strand. Vicarious Experiences yielded a mean of 3.75, suggesting that observing capable peer models also contributes meaningfully to students' confidence, as learners calibrate their own potential against the performance of classmates they consider comparable to themselves. Physiological and Emotional States obtained the lowest mean (3.65), indicating that while students generally manage performance-related anxiety, residual physical tension and nervousness during public speaking remain present for a portion of the group. Notably, no dimension exceeded the Very High threshold (4.21-5.00), suggesting that confidence, while consistently high, has not yet reached the level of complete self-assurance — leaving room for targeted instructional interventions that address each self-efficacy source systematically. Taken together, these results portray a student group that is psychologically prepared for oral communication tasks, with experiential and social channels of confidence development outweighing physiological readiness.

Relationship between Vocabulary Mastery and Public Speaking Confidence

Prior to correlation analysis, data normality was assessed using the Shapiro-Wilk and Kolmogorov-Smirnov tests. The composite (all $p \leq 0.003$), necessitating the Spearman Rank-Order Correlation as a non-parametric

alternative. Public speaking confidence scores were normally distributed (S-W: $p = 0.096$; K-S: $p = 0.200$). Table 3 presents the normality test results, and Table 4 the correlation outcome.

Table 3. Normality Test Results (N = 117)

Variable	K-S Stat.	K-S p	S-W Stat.	S-W p	Distribution
VST	0.111	0.001	0.963	0.003	Non-normal
WAT	0.131	< 0.001	0.936	< 0.001	Non-normal
PVLT	0.154	< 0.001	0.920	< 0.001	Non-normal
Composite Vocab.	0.106	0.003	0.949	< 0.001	Non-normal
Speaking Confidence	0.061	0.200	0.981	0.096	Normal

As shown in Table 3, the normality test results reveal a clear asymmetry between the two main variables. All three vocabulary mastery sub-scores — VST (K-S $p = 0.001$; S-W $p = 0.003$), WAT (K-S $p < 0.001$; S-W $p < 0.001$) — as well as their composite score (K-S $p = 0.003$; S-W $p < 0.001$) departed significantly spread across the sample. This pattern is consistent with the descriptive findings: the majority of students clustered within the lower to mid-range of each vocabulary measure, producing distributions that were non-uniform and tail-heavy. In contrast, public speaking confidence scores conformed to a normal distribution (K-S $p = 0.200$; S-W $p = 0.096$), reflecting a more balanced spread of responses across the five-point self-efficacy scale. Because normality is a prerequisite for parametric correlation methods such as Pearson r , and this assumption was violated for vocabulary mastery, the Spearman Rank-Order Correlation was adopted as the appropriate non-parametric alternative. This decision ensures the statistical integrity of the subsequent correlation analysis and the validity of the conclusions drawn from it.

Table 4. Spearman Rank-Order Correlation between Vocabulary Mastery and Public Speaking Confidence (N = 117, $\alpha = 0.05$)

Variables	Spearman ρ	p-value (2-tailed)	Decision on H_0
Composite Vocabulary Mastery vs. Public Speaking Confidence	0.152	0.102	Fail to Reject H_0

As presented in Table 4, the Spearman Rho coefficient of 0.152 indicates a very weak positive relationship between vocabulary mastery and public speaking confidence. The p-value of 0.102 exceeds the 0.05 significance threshold; therefore, the null hypothesis is not rejected. The Coefficient of Determination ($r^2 = 0.023$) further reveals that vocabulary mastery accounts for only 2.3% of the variance in public speaking confidence, with the remaining 97.7% attributable to other factors.

DISCUSSION

Vocabulary Mastery: A Functional but Shallow Competence

The finding that students possess intermediate vocabulary breadth but negligible depth and restricted productive ability reflects a well-documented pattern in second language development: recognition-level vocabulary develops ahead of depth and productive use (Nation, 2001; Laufer & Nation, 1999). Learners at the intermediate range possess approximately 3,000-5,000 work families sufficient for basic communication but insufficient for the precision and flexibility required in academic presentations. This recognition-production gap is corroborated by Farhana et al. (2024), who reported similar lexical imbalances among senior high school students in Indonesia, and by Adinata et al. (2024), who found that productive vocabulary — not receptive breadth — most

strongly predicts actual speaking performance. The negligible WAT depth scores are particularly consequential: to the richness and accuracy of oral expression (Makovskaya & Juraeva, 2023); Moufivani & Gyllstad, 2023). The restricted PVLTL scores align with Dalimunthe and Hardayi's (2022) finding that even intermediate learners frequently experience "tip-of-the-tongue" breakdowns during speaking because the automaticity required for fluent retrieval has not yet been developed. Bala and Tolentino (2024) further attributed this gap to inconsistent learning experiences resulting from the shift between online and face-to-face modalities, which limited structured opportunities for active vocabulary production.

Public Speaking Confidence: High but Not Absolute

Students' high public speaking confidence, with mastery experiences and verbal persuasion emerging as the strongest contributors, is consistent with Bandura's (1997) theoretical hierarchy, which positions direct personal accomplishment as the most potent and durable source of self-efficacy. The HUMSS curriculum's emphasis on oral tasks — speeches, debates, presentations, and oral defenses — creates a structural foundation for accumulating mastery experiences that build self-assurance over time. The near-equal contribution of verbal persuasion (mean = 4.01) reflects the role of teacher encouragement and peer validation in Filipino educational culture, a pattern observed by Eslit and Valderama (2023), who documented the importance of social reinforcement in sustaining communicative confidence among Filipino learners. The lowest mean for physiological and emotional states (3.65), while still within the High range, confirms that residual performance anxiety persists — consistent with Briones (2023), who noted that mild communication apprehension is normal even among confident senior high school speakers. The fact that no dimension reached the Very High threshold (4.21-5.00) suggests that, despite overall high confidence, students retain some uncertainty in high-stakes or unfamiliar contexts.

The Vocabulary—Confidence Relationship: A Linguistic-Psychological Gap

The non-significant Spearman Rho of 0.152 ($p = 0.102$) and minimal explained variance ($r^2 = 0.023$) indicate that vocabulary mastery does not function as a meaningful predictor of public speaking confidence in this context. This finding diverges from studies reporting significant vocabulary-speaking associations (Mufrihani, 2025; Farhana et al., 2024; Adinata et al., 2024; Rakhman & Nurhadi, 2021) but aligns with Safitri and Trisno (2024), who similarly found no significant correlation. The result is theoretically coherent with Bandura's (1997) Self-Efficacy Theory, which posits that confidence is built primarily through experiential and social channels rather than through accumulated knowledge. Bailey and Kadhum Fahad (2021), revisiting Krashen's affective filter framework, confirmed that emotional readiness and motivational identity — not vocabulary size — are the primary gatekeepers of confident language performance. The null finding is also consistent with Makovskaya and Juraeva (2023), who demonstrated that learners' beliefs about their vocabulary competence are only weakly tied to their actual measured vocabulary levels, further explaining how high confidence can coexist with limited measured lexical knowledge.

The distinctive pattern in this study — low vocabulary mastery coexisting with high public speaking confidence — represents a "linguistic-psychological gap." Students have developed psychological resilience through repeated oral performance within the HUMSS curriculum, even as their vocabulary knowledge remains below the depth and productive levels required for sophisticated academic discourse. The 97.7% unexplained variance in confidence likely reflects the dominance of factors such as prior speaking experience, personality traits, classroom culture, and the strong peer support environment characteristic of HUMSS programs (Ramadhani et al., 2025; Linao et al., 2025). Dalimunthe and Haryadi (2022) and Putri et al. (2024) both found that instructional approach — specifically the use of communicative and context-based learning methods — moderated the vocabulary-confidence relationship significantly, underscoring that measurement of vocabulary in isolation may underestimate its practical contribution to speaking performance when embedded in meaningful communicative activities.

These findings carry direct pedagogical implications. Teachers should integrate vocabulary instruction with active production tasks — contextual exercises, word association activities, and guided oral presentations requiring lexical retrieval — to bridge the recognition-production gap identified in Table 1. Confidence-building strategies grounded in all four self-efficacy sources should be systematically embedded in communication

instruction: structuring graduated mastery experiences, facilitating peer modeling, providing explicit verbal affirmation, and equipping students with anxiety management strategies (Eslit & Valderama, 2023; Briones, 2023). For curriculum developers, the negligible vocabulary depth scores underscore the need to shift from definitional vocabulary instruction toward meaning-in-context and collocational approaches that build quality of word knowledge alongside quantity, particularly in rural school contexts where exposure to rich English input is constrained (Bala & Tolentino, 2024).

CONCLUSION

Grade 12 HUMSS students at Mantalongon National High School demonstrated a low overall level of vocabulary mastery — characterized by intermediate breadth but negligible depth and restricted productive ability — alongside a high level of public speaking confidence driven primarily by mastery experiences and verbal persuasion. The Spearman Rank-Order Correlation yielded a very weak, non-significant relationship between the two variables ($\rho = 0.152$, $p = 0.102$), confirming that vocabulary knowledge accounts for only a minimal portion of speaking confidence. These findings indicate that psychological and experiential factors are far more decisive than lexical competence alone in shaping students' oral communication self-assurance. Instruction should therefore integrate vocabulary depth and production training with confidence-building strategies, and future research should explore the motivational, personality, and environmental factors that constitute the substantial unexplained variance identified in this study.

Ethical Considerations

Official authorization was obtained from the school principal. All participants provided voluntary written informed consent. Confidentiality was maintained through numerical coding of all responses. No financial incentives were offered. The authors declare no conflict of interest.

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