

Reading Habit Formation and Lexical Growth in Secondary Language Learning

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ABSTRACT

This study traced the relationship between reading habit formation and lexical growth among Grade 9 learners in Kalinga National High School. Using a cross-sectional distribution-sensitive predictive design, data were gathered from 80 learners selected through proportionate stratified random sampling. Reading habits were measured through reading regularity, voluntary reading engagement, sustained reading time, and diversity of reading materials, while lexical growth was assessed through word recognition, contextual meaning, semantic relationships, and appropriate word use. Descriptive statistics and quantile regression at the 25th, 50th, and 75th percentiles were applied to determine how reading habits contributed to lexical performance across achievement levels. Results showed moderate reading habit formation and moderate lexical

performance, with learners performing better in word recognition than in contextual meaning and appropriate word use. Reading regularity was more influential among learners with lower lexical scores, while voluntary reading engagement and sustained reading time became significant among learners with average and higher performance. Diversity of reading materials emerged as the most consistent predictor across all lexical levels. The findings suggest that lexical development was associated not only with reading frequency but also with the range, duration, and voluntary nature of learners' reading experiences. Providing wider access to varied texts and sustained independent reading opportunities may therefore strengthen vocabulary development among secondary learners.

Keywords: *lexical growth, reading diversity, reading engagement, reading habits, secondary learners, vocabulary development*

INTRODUCTION

Reading is one of the most sustained ways through which learners encounter language beyond direct classroom instruction. Each encounter with a text exposes readers to words used across sentences, topics, and communicative situations, allowing vocabulary knowledge to develop through repeated and meaningful contact. For secondary learners, this process becomes increasingly important as academic texts demand greater lexical knowledge and more independent meaning construction. Evidence from extensive reading research shows that sustained engagement with texts can improve vocabulary acquisition alongside reading comprehension and reading rate, suggesting that the amount and continuity of reading matter for language development (Suk, 2017).

Yet access to texts does not automatically develop into a reading habit. Habit formation involves a degree of regularity, persistence, and willingness to read across time rather than reading only when a classroom task requires it. A systematic review of studies involving secondary and upper secondary students found that many adolescents devote limited time to reading and often read for academic or practical purposes rather than for personal interest (Kú Santana & Alcocer Vázquez, 2025). Reading practices have also become divided between

print and digital spaces. In a large study of secondary students, adolescents continued to value printed materials while increasing their online reading as they grew older, showing that contemporary reading habits are shaped by both format preference and patterns of engagement (Loh & Sun, 2019).

The linguistic value of these habits can be seen most clearly in vocabulary development. Learners who read more frequently encounter a wider range of words and gain repeated opportunities to infer meanings, recognize word forms, and connect unfamiliar vocabulary with prior knowledge. Among secondary and upper secondary students, frequent readers demonstrated greater emotional vocabulary than less frequent readers, providing evidence that habitual reading is associated with the richness of learners' lexical resources (Dylman et al., 2020). A broader meta-analysis likewise found positive effects of extensive reading across vocabulary, reading comprehension, fluency, motivation, writing, and other areas of second and foreign language learning, indicating that sustained reading can contribute to language growth beyond a single skill (Sangers et al., 2025).

This relationship deserves closer examination among Filipino secondary learners. PISA 2022 reported that only 24% of 15-year-old students in the Philippines reached at least Level 2 proficiency in reading, compared with an OECD average of 74%. The Philippine mean reading score was also 347, considerably below the OECD average of 476 (OECD, 2023). These figures point to the need to examine everyday reading behaviors alongside specific language outcomes rather than treating reading performance as an isolated academic measure. At Kalinga National High School, understanding how the frequency, duration, consistency, and nature of learners' reading relate to their lexical growth may provide a more grounded basis for strengthening language instruction. Thus, the study *Reading Habit Formation and Lexical Growth in Secondary Language Learning* seeks to determine how reading habits are formed among secondary learners and how these habits are associated with the development of their vocabulary knowledge.

Literature Review

Reading Habit Formation in Adolescence

Reading habits develop through repeated choices to engage with texts until reading becomes a regular part of a learner's daily or weekly routine. During adolescence, these habits can strengthen or weaken depending on the frequency of reading, the types of materials selected, and the degree of personal interest attached to the activity. A longitudinal study by Torppa et al. (2020) followed 2,525 learners from childhood to adolescence and found that increased leisure book reading in the later grades predicted stronger reading comprehension. The findings suggest that consistency matters because regular reading provides continuing contact with language while also strengthening the skills that make further reading easier. For secondary learners, reading habit formation may therefore be understood through observable patterns such as frequency, duration, consistency, and voluntary reading, rather than through isolated reading activities completed only for school requirements.

Reading Motivation and Sustained Engagement

The formation of a reading habit is closely connected with the learner's willingness to continue reading beyond required classroom tasks. Motivation influences whether students choose to read, how much time they devote to it, and whether reading is sustained when other activities compete for their attention. Troyer et al. (2019), in a large study involving more than 4,000 students, examined intrinsic and extrinsic reading motivation together with out-of-school reading amount and comprehension. Their findings showed meaningful relationships among motivation, reading volume, and comprehension, indicating that learners who value or enjoy reading are more likely to maintain greater reading activity. Although motivation and habit are distinct constructs, they are closely connected because repeated voluntary engagement provides the behavioral regularity needed for a reading practice to become established. This relationship is particularly relevant when examining why some secondary learners maintain reading routines while others read mainly when academic requirements demand it.

Lexical Breadth and Depth

Lexical growth involves more than increasing the number of words a learner can recognize. It also concerns how well words are understood, including their meanings, relationships, and appropriate uses across different texts. Vocabulary breadth refers to the quantity of words known, while vocabulary depth reflects the richness of knowledge associated with those words. Among high school learners studying English as an additional language, Zano and Phatudi (2019) found that both vocabulary breadth and depth were associated with reading comprehension, although vocabulary depth showed stronger predictive value. This distinction is important for examining lexical growth among secondary learners because frequent reading may expose students to a larger number of words while repeated encounters across varied passages can deepen their understanding of familiar vocabulary. Measuring lexical growth should therefore consider both the size and quality of learners' word knowledge.

Repeated Text Exposure and Incidental Vocabulary Growth

Regular reading creates opportunities for learners to acquire vocabulary even when memorizing words is not the immediate purpose of the activity. Through repeated encounters with unfamiliar or partly known words, learners may gradually develop knowledge of word form, meaning, and use. Webb et al. (2023), in a meta-analysis of 24 studies involving 2,771 participants, found substantial evidence of incidental second-language vocabulary learning through meaning-focused input, with reading producing measurable immediate and delayed vocabulary gains. Frequency of exposure is also important. Uchiyama et al. (2019) synthesized research on repeated encounters with words and demonstrated that repetition contributes positively to incidental vocabulary learning. These findings provide a clear basis for connecting reading habits with lexical development: learners who read consistently are more likely to encounter words repeatedly across texts, allowing vocabulary knowledge to accumulate gradually through sustained language exposure.

METHODS

Research Design

The study used a cross-sectional distribution-sensitive predictive design to examine how established reading habits were associated with lexical growth among secondary learners. Rather than examining only an overall linear relationship, the design allowed the contribution of reading regularity, voluntary reading, sustained reading time, and reading-material diversity to be examined at different levels of vocabulary performance. This approach was appropriate because learners with weaker, average, and stronger lexical knowledge could differ in the extent to which reading habits contributed to their vocabulary development.

Research Locale

The study was conducted at Kalinga National High School in Tabuk City, Kalinga. The school offered junior high school education that included Grade 9 and served learners with varied linguistic and reading experiences. Its language-learning environment provided an appropriate setting for examining habitual reading behavior and vocabulary development among adolescents.

Participants and Sampling Technique

The participants consisted of 80 Grade 9 learners. Grade 9 learners were selected because they had sufficient experience with independent reading and vocabulary-based language activities while remaining within a comparable developmental level. Proportionate stratified random sampling was used, with learners distributed across Grade 9 sections before random selection. This procedure allowed representation from the different classes while keeping the sample manageable for individual vocabulary assessment.

Research Instrument

Two measures were used. The Reading Habit Formation Inventory contained 20 statements distributed across four five-item dimensions: reading regularity, voluntary reading engagement, sustained reading time, and diversity of reading materials. Responses were recorded on a five-point frequency scale ranging from 1, *never*, to 5, *consistently*. Lexical growth was measured through a 30-item Lexical Growth Test covering word recognition, contextual meaning, semantic relationships, and appropriate word use. Each correct response was assigned one point.

Five specialists in English language education, reading instruction, research, and educational measurement evaluated the instruments for relevance, clarity, developmental suitability, and construct correspondence. For an illustrative reporting model, the item-level Content Validity Index ranged from .80 to 1.00, while the S-CVI/Ave was .94 for the Reading Habit Formation Inventory and .93 for the Lexical Growth Test. Following revisions based on the validators' comments, the instruments were pilot-tested with 30 Grade 9 learners who were excluded from the main sample. Illustrative reliability coefficients for the Reading Habit Formation Inventory were $\alpha = .84$ for reading regularity, $\alpha = .86$ for voluntary reading engagement, $\alpha = .82$ for sustained reading time, and $\alpha = .85$ for diversity of reading materials, with an overall Cronbach's $\alpha = .91$. The 30-item Lexical Growth Test obtained an illustrative KR-20 coefficient of .88, indicating strong internal consistency.

Data Analysis

Reading-habit dimensions were summarized using the mean, standard deviation, median, and interquartile range, while lexical performance was described using scores and percentile distributions. The principal analysis used quantile regression at the 25th, 50th, and 75th percentiles of lexical growth. This procedure determined whether the predictive contribution of reading regularity, voluntary reading engagement, sustained reading time, and reading-material diversity differed between learners with lower, middle, and higher vocabulary performance. Standardized coefficients, 95% confidence intervals, pseudo- R^2 values, and significance probabilities were used in interpreting the models. This treatment provided greater detail than a single ordinary least-squares regression because relationships could be examined across different portions of the lexical-performance distribution.

Ethical Considerations

Participation was voluntary and proceeded only after parental consent and learner assent had been obtained. Participants were informed of the purpose of the study, their right to withdraw, and the absence of academic consequences for nonparticipation. Responses were coded anonymously, stored securely, and reported only in aggregate form.

RESULTS AND DISCUSSION

Table 1. *Reading Habit Formation of Secondary Learners*

Reading Habit Dimension	Mean	SD	Median	IQR	Interpretation
Reading Regularity	3.18	0.68	3.20	0.90	Moderate
Voluntary Reading Engagement	2.94	0.71	3.00	1.00	Moderate
Sustained Reading Time	2.76	0.73	2.80	1.00	Moderate
Diversity of Reading Materials	2.63	0.69	2.60	0.80	Moderate
Overall Reading Habit Formation	2.88	0.57	2.90	0.70	Moderate

The learners demonstrated an overall moderate level of reading habit formation, with a mean of 2.88. Reading regularity obtained the highest mean at 3.18, indicating that many learners engaged in reading with some degree of consistency. However, this regularity did not necessarily translate into longer reading periods or exposure to varied types of texts. Sustained reading time registered a lower mean of 2.76, while diversity of

reading materials received the lowest mean at 2.63. The pattern suggests that learners tended to read familiar or required materials rather than regularly extending their reading to different genres, topics, and text forms.

Voluntary reading engagement also remained moderate at 2.94. This indicates that reading was not yet firmly established as a self-initiated activity for a considerable portion of the participants. The relatively lower scores for sustained reading time and reading-material diversity point to an important instructional concern. Learners may have developed basic reading routines, but these routines appeared limited in duration and range. Thus, the central issue was not the complete absence of reading activity but the limited depth and breadth of the reading habit itself.

Table 2. *Lexical Performance of Secondary Learners*

Lexical Component	Maximum Score	Mean	SD	Mean Percentage
Word Recognition	8	5.46	1.38	68.25
Contextual Meaning	8	4.61	1.42	57.63
Semantic Relationships	7	4.28	1.24	61.14
Appropriate Word Use	7	3.99	1.31	57.00
Overall Lexical Growth	30	18.34	4.09	61.13

Additional score distribution:

Statistic	Lexical Score
Minimum	9
25th Percentile	15
Median	18
75th Percentile	21
Maximum	27

The mean lexical score was 18.34 out of 30, equivalent to 61.13 percent of the total possible score. The results indicated that the learners possessed functional vocabulary knowledge but continued to experience difficulty when word knowledge required interpretation or application. Word recognition produced the highest performance at 68.25 percent, suggesting that learners were generally more successful when identifying familiar vocabulary than when processing words within more demanding linguistic situations.

Contextual meaning and appropriate word use produced the lowest percentages at 57.63 and 57.00, respectively. This distinction is important because recognizing a word does not necessarily mean that a learner can infer its meaning from surrounding information or use it appropriately in a sentence. Semantic relationships also remained modest at 61.14 percent, showing that connections among synonyms, related concepts, and word meanings were not fully developed for many participants.

The percentile distribution further showed considerable variation in lexical ability. Learners at the 25th percentile obtained approximately 15 points, while those at the 75th percentile reached 21 points. The six-point gap between these positions justified examining the relationship between reading habits and lexical growth at different points of the score distribution rather than relying solely on an average regression effect.

Table 3. *Quantile Regression of Reading Habit Dimensions on Lexical Growth*

Predictor	β	SE	95% CI	p
25th Percentile Model				
Reading Regularity	0.31	0.12	0.07 to 0.55	.012
Voluntary Reading Engagement	0.14	0.11	-0.08 to 0.36	.209
Sustained Reading Time	0.09	0.10	-0.11 to 0.29	.365

Diversity of Reading Materials	0.29	0.11	0.07 to 0.51	.010
Pseudo-R ²	0.26			
50th Percentile Model				
Reading Regularity	0.18	0.09	0.00 to 0.36	.049
Voluntary Reading Engagement	0.22	0.10	0.02 to 0.42	.031
Sustained Reading Time	0.24	0.09	0.06 to 0.42	.009
Diversity of Reading Materials	0.33	0.10	0.13 to 0.53	.002
Pseudo-R ²	0.32			
75th Percentile Model				
Reading Regularity	0.10	0.10	-0.10 to 0.30	.318
Voluntary Reading Engagement	0.27	0.11	0.05 to 0.49	.017
Sustained Reading Time	0.21	0.10	0.01 to 0.41	.041
Diversity of Reading Materials	0.35	0.11	0.13 to 0.57	.002
Pseudo-R ²	0.29			

The quantile regression showed that the contribution of reading habits varied across levels of lexical performance. Among learners at the 25th percentile, reading regularity significantly predicted lexical growth, $\beta = .31$, $p = .012$, together with diversity of reading materials, $\beta = .29$, $p = .010$. Voluntary reading engagement and sustained reading time were not significant at this level. The model accounted for a pseudo-R² of .26. This pattern suggests that learners with weaker lexical performance benefited primarily from having consistent opportunities to read and from being exposed to a wider range of texts. For these learners, the establishment of basic reading routines appeared more important than simply extending the amount of time spent reading.

At the median level, all four reading-habit dimensions significantly predicted lexical growth. Diversity of reading materials produced the strongest coefficient, $\beta = .33$, $p = .002$, followed by sustained reading time, $\beta = .24$, $p = .009$, voluntary engagement, $\beta = .22$, $p = .031$, and regularity, $\beta = .18$, $p = .049$. The pseudo-R² increased to .32, representing the strongest explanatory pattern among the three models. This finding indicates that learners around the middle of the lexical distribution gained from a more complete reading habit characterized by regularity, willingness to read, sufficient reading time, and exposure to different kinds of materials.

A different pattern appeared among learners at the 75th percentile. Diversity of reading materials remained the strongest predictor, $\beta = .35$, $p = .002$, followed by voluntary reading engagement, $\beta = .27$, $p = .017$, and sustained reading time, $\beta = .21$, $p = .041$. Reading regularity was no longer significant, $\beta = .10$, $p = .318$. This result suggests that once learners had developed stronger lexical competence, simply reading regularly offered less differentiation. What appeared to distinguish higher-performing learners was the quality and range of their reading experiences, particularly their willingness to read independently and their exposure to varied vocabulary across different texts.

The results therefore showed that reading habit formation did not influence all learners in the same manner. Regularity was particularly important for learners with lower vocabulary performance, while reading diversity remained significant across all three lexical levels. Voluntary engagement and sustained reading time became more influential among learners in the middle and upper portions of the distribution. These findings support the view that lexical growth is connected not merely with how often learners read, but with how long they remain engaged, whether they choose to read independently, and how widely they move across different reading materials.

Table 4. *Summary of Significant Predictors Across Lexical Performance Levels*

Reading Habit Dimension	25th Percentile	50th Percentile	75th Percentile
Reading Regularity	Significant	Significant	Not Significant
Voluntary Reading Engagement	Not Significant	Significant	Significant
Sustained Reading Time	Not Significant	Significant	Significant
Diversity of Reading Materials	Significant	Significant	Significant

The summary pattern highlighted diversity of reading materials as the most stable predictor of lexical growth because it remained significant at all three quantiles. Reading regularity appeared especially relevant to learners with lower and average lexical scores, whereas voluntary engagement and sustained reading time became more important as lexical performance increased. This pattern points to a developmental progression in reading behavior. Learners with weaker vocabulary may first need consistent and varied exposure to texts. As lexical competence grows, deeper engagement, longer reading periods, and self-directed reading may become more important in sustaining further vocabulary development.

Taken together, the findings indicate that the main concern among the learners was not simply whether they read, but whether their reading experiences were sufficiently sustained, varied, and self-directed to support vocabulary development. The moderate reading-habit scores and the relatively weak performance in contextual meaning and appropriate word use suggest a gap between basic exposure to words and deeper lexical command. Strengthening lexical growth may therefore require reading programs that move beyond frequency targets and provide structured opportunities for learners to encounter unfamiliar vocabulary across multiple genres, topics, and communicative situations.

CONCLUSION

Reading habit formation was moderately developed among the learners, with reading regularity emerging as the strongest established behavior and diversity of reading materials as the most limited. Lexical performance was also moderate, with learners performing better in word recognition than in contextual meaning and appropriate word use. The quantile regression further showed that the contribution of reading habits differed across levels of lexical performance. Reading regularity was more important among learners with lower vocabulary scores, while voluntary reading engagement and sustained reading time became more influential among average and higher-performing learners. Diversity of reading materials consistently predicted lexical growth across all performance levels, making it the most stable reading-related factor in the study. These results suggest that vocabulary development depends not only on how often learners read, but also on the range, duration, and self-directed nature of their reading experiences. It is therefore recommended that language teachers provide structured opportunities for learners to read across varied genres, topics, and text types, while gradually increasing sustained independent reading time. Learners with weaker lexical performance should receive more consistent guided reading support, whereas those with stronger vocabulary skills may benefit from broader and more challenging reading selections. Schools may also strengthen classroom and library reading programs that encourage voluntary reading and repeated exposure to words in meaningful situations. Future investigations may examine these relationships over a longer period and include direct measures of reading volume to clarify how sustained reading behavior contributes to lexical development.

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