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Factors Associated with Reading Comprehension Performance Among Grade 11 Tech-Pro Students: A Descriptive-Correlational Study

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ABSTRACT

This study examined the factors associated with reading comprehension performance among Grade 11 Tech-Pro students at Oras National High School, Oras, Eastern Samar, during School Year 2065–2027. Specifically, it investigated the relationships between reading comprehension and five selected factors: reading motivation, vocabulary knowledge, prior knowledge, reading habits, and reading strategies. The study employed a quantitative descriptive-correlational research design. Data from 50 respondents with complete questionnaire responses and recorded reading comprehension scores were analyzed using frequency, percentage, mean, standard deviation, and Pearson product-moment correlation. The results showed that the respondents obtained a mean reading comprehension score of 22.10 out of 30 (SD = 5.18), with 80% classified in the high or very high categories based on the score ranges used in the dataset. Reading strategies received the highest mean rating (M = 3.31), while reading habits received the lowest (M = 2.81). Correlation analysis revealed a weak but statistically significant negative relationship between reading habits and reading comprehension scores ($r = -0.296$, $p = 0.037$). However, reading motivation ($r = -0.084$, $p = 0.563$), vocabulary knowledge ($r = 0.025$, $p = 0.865$), prior knowledge ($r = -0.022$, $p = 0.882$), and reading strategies ($r = 0.008$, $p = 0.957$) did not show statistically significant relationships with reading comprehension. The findings indicated that reading habits warranted further investigation, particularly regarding questionnaire wording and scoring. Since the study was correlational, the results did not establish causal relationships. The findings may inform the development of a proposed Reading Comprehension Enhancement Program tailored to the learners' identified needs.

Keywords: *reading comprehension, reading motivation, vocabulary knowledge, prior knowledge, reading habits, reading strategies, descriptive-correlational study*

INTRODUCTION

Reading comprehension is the ability to construct meaning from written texts by identifying information, connecting ideas, interpreting vocabulary, making inferences, and evaluating what has been read. It is an important skill for senior high school learners because academic work requires them to understand increasingly complex texts across learning areas.

Difficulty in reading comprehension can affect learners' ability to identify main ideas and supporting details, draw conclusions, summarize information, and use written information to complete academic tasks. For learners in the Technical-Vocational or Tech-Pro program, comprehension is also

relevant to understanding written instructions, technical explanations, procedures, manuals, and other materials related to their studies and future work.

Reading comprehension may be associated with several learner-related factors. Reading motivation concerns learners' interest and willingness to read. Vocabulary knowledge concerns their understanding of words and meanings. Prior knowledge refers to information and experiences they bring to a text. Reading habits include the regularity and duration of reading, while reading strategies include practices such as predicting, identifying main ideas, asking questions, summarizing, and checking understanding.

Previous Philippine studies described in the source manuscript examined motivation, prior knowledge, and vocabulary knowledge among elementary learners; metacognitive reading strategies among college students; and reading-related difficulties among Grade 11 HUMSS students. These studies indicated that reading comprehension had been examined across different learner groups, but they did not establish whether the same relationships were present among Grade 11 Tech-Pro students at Oras National High School.

The researchers therefore examined the relationships between five selected reading-related factors and reading-comprehension performance among Grade 11 Tech-Pro students at Oras National High School, Oras, Eastern Samar, during School Year 2026–2027. A descriptive-correlational approach was used to describe the respondents' ratings and test performance and to determine whether the selected factors were statistically associated with reading-comprehension scores. The study did not seek to establish cause-and-effect relationships.

Research Questions

The study examined the factors associated with reading-comprehension performance among Grade 11 Tech-Pro students. Specifically, it sought to answer the following questions:

1. What was the profile of the respondents in terms of age, sex, and section?
2. What were the respondents' levels of reading motivation, vocabulary knowledge, prior knowledge, reading habits, and use of reading strategies, based on their questionnaire responses?
3. What was the respondents' level of reading comprehension based on their scores on the reading-comprehension test?
4. What were the respondents' levels of literal, inferential, and critical/evaluative comprehension, as measured by the test?
5. Was there a significant relationship between reading motivation and reading-comprehension scores?
6. Was there a significant relationship between vocabulary knowledge and reading-comprehension scores?
7. Was there a significant relationship between prior knowledge and reading-comprehension scores?
8. Was there a significant relationship between reading habits and reading-comprehension scores?
9. Was there a significant relationship between the use of reading strategies and reading-comprehension scores?

METHODS

Research Design

The study used a quantitative descriptive-correlational research design. The descriptive component summarized respondents' profiles, questionnaire ratings for the five selected factors, and reading-comprehension test scores. The correlational component examined whether each factor score was linearly associated with reading-comprehension performance. This design was appropriate because the variables were measured as they occurred and were not manipulated by the researchers. The design did not support causal conclusions.

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Research Locale

The study was conducted at Oras National High School in Oras, Eastern Samar. The school was selected because it offered the Tech-Pro program and included Grade 11 learners relevant to the study's research questions.

Sampling Technique

The dataset analyzed in the manuscript contained 50 Grade 11 Tech-Pro respondent records with complete responses to the 30 questionnaire items and a recorded reading-comprehension score. The source manuscript did not document the final sampling procedure or the total population from which the respondents were drawn. Therefore, the exact sampling technique and response rate should be confirmed from the researchers' records before publication. The section field was blank for some respondents, so section-level analyses were not performed

Research Instruments

Two instruments were described in the source manuscript. The first was a researcher-prepared questionnaire on five factors associated with reading comprehension: reading motivation, vocabulary knowledge, prior knowledge, reading habits, and reading strategies. The dataset analysis described in the manuscript used 30 items, with six items assigned to each factor. Responses were coded on a four-point Likert scale: 4 = Strongly Agree, 3 = Agree, 2 = Disagree, and 1 = Strongly Disagree. The questionnaire measured respondents' self-reports; therefore, the vocabulary and prior-knowledge ratings were not interpreted as objective tests of those abilities.

The second instrument was a researcher-prepared reading-comprehension test with a total score of 30. The proposed test structure included 10 literal-comprehension items, 10 inferential-comprehension items, and 10 critical/evaluative-comprehension items. The score represented respondents' performance on the test used in the study. The validity, reliability, and final test specifications should be documented using the researchers' actual validation records before publication.

Instrument Review and Validation

The source manuscript stated that the questionnaire and reading-comprehension test were to be reviewed by qualified validators for clarity, relevance, appropriateness, grammar, alignment with the research questions, and suitability for Grade 11 learners. It also described revision based on reviewers' comments and the possibility of a pilot test. The supplied manuscript did not include completed validation forms, reliability estimates, or pilot-test results. Accordingly, the researchers should insert the actual number and qualifications of validators, dates of review, revisions made, and any reliability results from their records rather than report unverified procedures as completed.

Data-Gathering Procedure

The procedure described in the manuscript consisted of preparing the research instruments, seeking review and validation, securing permission from the school and relevant authorities, identifying eligible Grade 11 Tech-Pro students, administering the questionnaire and reading-comprehension test, collecting completed responses, encoding the data, conducting statistical analyses, and interpreting the results. The final analysis used 50 records with complete questionnaire responses and recorded test scores. Dates of administration, the exact recruitment procedure, and documentation of permissions and consent should be added from the researchers' actual records if required by the target journal or institution.

Ethical Considerations

The source manuscript stated that participation was voluntary, respondents were informed about the study's purpose and use of data, names were excluded from the research report, and information was

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treated confidentially for research purposes. It also stated that school requirements for parental or guardian consent and student assent were to be followed for participants who were minors, and that no student would be penalized for declining participation. Because the supplied document did not include ethics approval or consent records, the researchers should verify and report the actual permissions, consent/assent process, and applicable institutional review requirements before publication.

Statistical Treatment of Data

Frequency counts and percentages were used to describe respondents' age and sex. The section variable was not analyzed because the field was incomplete for some records. Percentages were calculated by dividing the frequency by the total number of valid responses and multiplying by 100.

Means and standard deviations were used to summarize reading-comprehension test scores. Mean ratings for the five questionnaire factors were calculated from the item responses assigned to each factor. Descriptive labels were applied using the interpretation ranges stated in the analysis workbook; these labels should be retained only if the researchers and adviser confirm that the scoring ranges were appropriate for the instrument.

Pearson product-moment correlation coefficients were calculated to examine the relationships between each factor mean and the reading-comprehension score. The five relationships tested were reading motivation, vocabulary knowledge, prior knowledge, reading habits, and reading strategies in relation to reading-comprehension performance. Statistical significance was assessed at $\alpha = .05$ using two-tailed tests. A p-value below .05 was treated as evidence against the corresponding null hypothesis; a p-value of .05 or higher was treated as insufficient evidence to reject it. The interpretation of Pearson correlation depends on the suitability of its assumptions, including the form of the relationship and the nature of the scores.

RESULTS AND DISCUSSION

Profile of the Respondents

The analysis included 50 Grade 11 respondents. Their ages ranged from 15 to 17 years. Most respondents were 16 years old (42, 84.0%).

Table 1. *Respondents' Profile*

Age	Frequency	Percentage
15	6	12%
16	42	82%
17	2	4%

Reading-Comprehension Test Results

The respondents obtained an average reading-comprehension score of 22.10 out of 30 (SD = 5.18). Scores ranged from 8 to 29, with a median of 23.5. Based on the score bands stated in the workbook codebook, the largest group fell in the High category.

Table 2. *Respondents' Reading Level*

Reading level (codebook bands)	Score range	Frequency	Percentage
Very Low	0–10	2	4.0%
Low	11–15	6	12.0%
Moderate	16–20	2	4.0%
High	21–25	27	54.0%
Very High	26–30	13	26.0%

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These results indicate that low reading-comprehension scores were not the predominant outcome in this dataset: 40 of 50 respondents (80.0%) scored in the High or Very High bands. Consequently, the title's emphasis on "low reading comprehension" should be reviewed against the actual sample and the study's intended population. The interpretation also depends on whether the score bands have been validated for the reading test used.

Respondents' Ratings of the Factors

Each factor was computed as the mean of its six corresponding questionnaire items, with responses coded from 1 (Strongly Disagree) to 4 (Strongly Agree). The means describe respondents' self-reported ratings; they are not objective tests of vocabulary or prior knowledge.

Table 3. *Respondents' Ratings*

Factor	Mean	SD	Descriptive label*
Reading Motivation	3.28	0.45	High
Vocabulary Knowledge	3.12	0.41	Moderately High
Prior Knowledge	3.27	0.40	High
Reading Habits	2.81	0.51	Moderately High
Reading Strategies	3.31	0.47	High

The labels use a simple equal-interval interpretation for descriptive convenience (1.00–1.74 Low; 1.75–2.49 Moderately Low; 2.50–3.24 Moderately High; 3.25–4.00 High). If the school or validated instrument specifies a different interpretation scale, replace these labels accordingly.

Reading strategies had the highest mean (M = 3.31), followed by reading motivation (M = 3.28) and prior knowledge (M = 3.27). Reading habits had the lowest mean (M = 2.81). This suggests that respondents generally rated their reading strategies and motivation more positively than their reading habits. These self-reports should be interpreted cautiously and do not, by themselves, establish actual skill levels.

Relationship Between the Factors and Reading-Comprehension Scores

Pearson product-moment correlation was used to examine the linear relationship between each factor mean and the reading-comprehension score. The analysis used the 50 complete respondent records. Statistical significance was assessed at the .05 level, two-tailed.

Table 4. *Relationship Between the Factors and Reading-Comprehension Scores*

Factor	Pearson r	p-value	Relationship	Decision (α=.05)
Reading Motivation	-0.084	0.563	negligible/very weak negative	Not significant
Vocabulary Knowledge	0.025	0.865	negligible/very weak positive	Not significant
Prior Knowledge	-0.022	0.882	negligible/very weak negative	Not significant
Reading Habits	-0.296	0.037	weak negative	Significant
Reading Strategies	0.008	0.957	negligible/very weak positive	Not significant

Reading Motivation was not significantly correlated with reading-comprehension scores (r = -0.084, p = 0.563). The data do not provide sufficient evidence of a linear relationship between this factor and the test score in this sample. This does not prove that no relationship exists; a larger or different sample may produce different results.

Vocabulary Knowledge was not significantly correlated with reading-comprehension scores (r = 0.025, p = 0.865). The data do not provide sufficient evidence of a linear relationship between this factor and the test score in this sample. This does not prove that no relationship exists; a larger or different sample may produce different results.

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Prior Knowledge was not significantly correlated with reading-comprehension scores ($r = -0.022$, $p = 0.882$). The data do not provide sufficient evidence of a linear relationship between this factor and the test score in this sample. This does not prove that no relationship exists; a larger or different sample may produce different results.

Reading habits had a statistically significant, weak negative relationship with reading-comprehension scores ($r = -0.296$, $p = 0.037$). In this sample, higher self-reported reading-habit ratings tended to be associated with lower test scores. This unexpected direction should not be interpreted as evidence that reading habits harm comprehension. It may reflect how the items were worded or coded, the characteristics of this small sample, measurement issues, or other unmeasured factors. The questionnaire items and scoring direction should be checked before drawing substantive conclusions.

Reading Strategies was not significantly correlated with reading-comprehension scores ($r = 0.008$, $p = 0.957$). The data do not provide sufficient evidence of a linear relationship between this factor and the test score in this sample. This does not prove that no relationship exists; a larger or different sample may produce different results.

Overall, only reading habits reached the .05 significance threshold among the five factors. Reading motivation, vocabulary knowledge, prior knowledge, and reading strategies did not show statistically significant linear relationships with the test scores in this dataset. Because the study is correlational, none of these results demonstrates causation.

Summary of Findings

The respondents' average reading-comprehension score was 22.10 out of 30, with a standard deviation of 5.18. Scores ranged from 8 to 29. Using the score bands in the workbook codebook, 40 respondents (80.0%) were classified in the High or Very High categories. Thus, low scores were not the majority in this dataset. The highest average self-reported factor was reading strategies ($M = 3.31$); the lowest was reading habits ($M = 2.81$). Reading habits had a weak negative correlation with reading-comprehension scores ($r = -0.296$, $p = 0.037$), which was statistically significant at the .05 level. Reading motivation, vocabulary knowledge, prior knowledge, and reading strategies did not have statistically significant Pearson correlations with reading-comprehension scores in this sample.

CONCLUSION

The data therefore do not support describing the whole sample as having low reading comprehension. The respondents reported relatively positive reading strategies and motivation, while reading habits received the lowest average rating. This may help identify an area for further classroom inquiry, but self-reported ratings should not be treated as direct measurements of ability. Of the five factors tested, only reading habits showed a statistically significant relationship with reading-comprehension scores, and that relationship was weak and negative. Because the direction is unexpected, the questionnaire wording, item coding, and score calculations should be verified before treating this as a substantive finding. The data do not establish that any factor causes reading-comprehension outcomes. The findings are limited to the respondents and measurements represented in the workbook.

Recommendations

1. ***For English and reading teachers*:** Review students' reading routines through brief interviews, reading logs, and comprehension activities. Provide varied texts, guided reading, vocabulary-in-context work, and explicit modeling of strategies such as predicting, questioning, summarizing, and identifying main ideas. Use classroom assessment results to tailor support rather than assuming all students have low comprehension.

2. ***For students*:** Set a realistic reading schedule, choose texts at an appropriate level of challenge, record unfamiliar words, summarize what was read, and check understanding while reading. Students should seek clarification when a passage is confusing.

   For school administrators: Consider supporting a structured reading program with access to age-appropriate texts, regular opportunities for sustained reading, and teacher collaboration on comprehension instruction. Monitor progress using consistent, appropriate assessments.
3. ***For future researchers*:** Verify and document the validity and reliability of the questionnaire and reading test. Check reverse-worded items and scoring direction, confirm that the score-band labels match the actual test, and collect complete demographic fields. Use a larger and clearly defined sample, report assumption checks for Pearson correlation, and consider confidence intervals or suitable alternative analyses when assumptions are not met.
4. ***For the researcher*:** Revisit the study title and research questions. Since 80.0% of this sample scored in the High or Very High bands, a title focused on factors associated with reading-comprehension performance may better reflect these data unless the broader population or a separately established screening result specifically concerns low comprehension.

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