

Contextual Predictors of Reading Comprehension among Grade 4 Learners in Hinterland Schools

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DOI: <https://doi.org/10.47772/IJRISS.2026.100400033>

Received: 05 April 2026; Accepted: 10 April 2026; Published: 25 April 2026

ABSTRACT

Reading serves as a gateway to learning, critical thinking, and knowledge acquisition, making reading comprehension a crucial skill for Grade 4 pupils, particularly those in hinterland areas where access to educational resources may be limited. However, limited studies have examined the combined influence of well-being and academic efficacy on the reading comprehension of learners in these contexts. This study examined the influence of well-being and academic efficacy on the reading comprehension of 137 Grade 4 pupils in selected hinterland public elementary schools during School Year 2025–2026. A descriptive-correlational research design was employed using a modified questionnaire, and multiple regression analysis was used to determine whether the variables significantly predict reading comprehension. Results revealed that although pupils frequently experienced well-being and demonstrated a high level of academic efficacy, their overall reading comprehension remained at the Beginning level. Further analysis showed that both well-being and academic efficacy significantly influenced reading comprehension. The findings suggest that improving reading comprehension requires not only the development of cognitive skills but also the strengthening of learners' well-being and academic efficacy. Thus, interventions that integrate socio-emotional support and academic skill development are essential to enhance learners' reading performance, particularly in resource-limited hinterland schools. Schools, particularly in hinterland areas, may implement integrated reading intervention programs that simultaneously strengthen learners' socio-emotional well-being, academic efficacy, and reading comprehension through structured, scaffolded, and learner-centered instructional strategies.

Keywords: well-being, academic efficacy, reading comprehension, hinterland schools

INTRODUCTION

Education is important in developing learners' knowledge, skills, and ability to participate meaningfully in society. In basic education, reading comprehension is a key part of literacy because it helps pupils understand information, interpret ideas, and learn across subject areas. In the Philippine context, the MATATAG Curriculum gives strong attention to literacy, inclusion, and learner well-being. Grade 4 is an important stage because pupils begin to move from learning to read to reading to learn, and they are expected to develop skills such as identifying the main idea, noting details, sequencing events, and drawing conclusions.

However, challenges in reading proficiency are still present, especially in geographically isolated and disadvantaged schools where access to learning resources is often limited. Aside from external conditions, learners' internal psychological factors also play an important role in academic performance. Well-being supports motivation, engagement, and participation in learning, while academic efficacy strengthens confidence, effort, and persistence in doing academic tasks. In this study, reading comprehension is viewed as an important literacy skill that may be influenced by both well-being and academic efficacy. Thus, the study focuses on how these psychological factors are related to the reading comprehension of Grade 4 pupils in selected hinterland public elementary schools.

THEORETICAL AND CONCEPTUAL FRAMEWORK

This study is anchored on Bandura's Social Cognitive Theory and Seligman's PERMA model of well-being. Social Cognitive Theory explains human functioning as the result of reciprocal interactions among personal

factors, behavior, and environmental influences. A central concept in this theory is self-efficacy, defined as an individual's belief in the capacity to organize and execute actions necessary to achieve desired outcomes. In educational contexts, this belief is reflected in academic efficacy, which influences learners' motivation, persistence, and use of learning strategies.

Complementing this framework, Seligman's PERMA model conceptualizes well-being as a multidimensional construct composed of Positive Emotions, Engagement, Relationships, Meaning, and Accomplishment. These dimensions represent psychological conditions that support learners' motivation and participation in learning activities. When learners experience positive emotions, meaningful relationships, and a sense of accomplishment, they are more likely to remain engaged in academic tasks.

Guided by these theoretical perspectives, the study presents a research schema that illustrates the proposed relationships among the variables and serves as a guide for the study's research process and analysis.

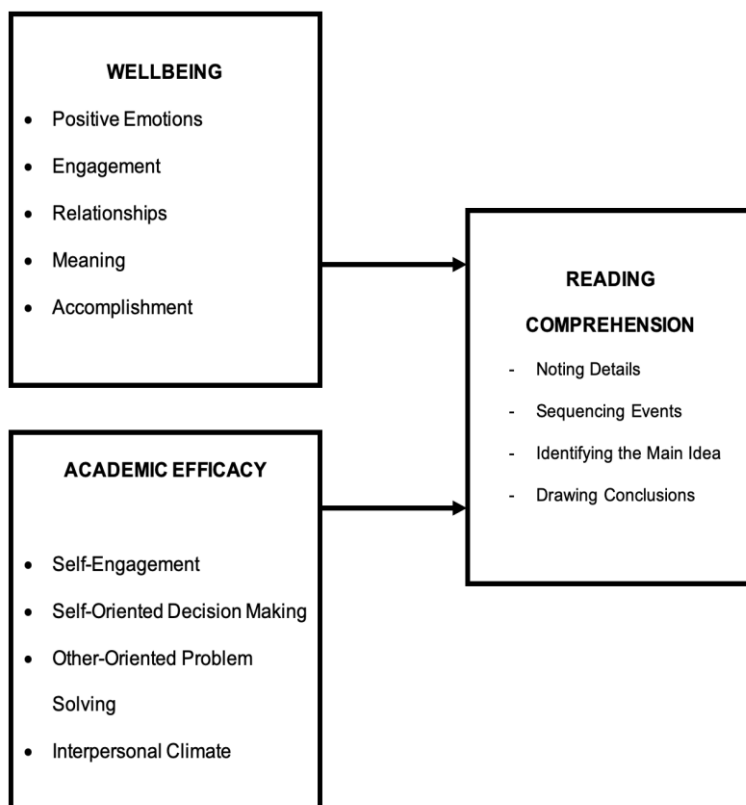


Figure 1. The Schematic Presentation of the Study

RESEARCH QUESTIONS

This study is ought to answer the following questions;

- What is the participants' level of well-being in terms of positive emotions, engagement, relationships, meaning, and accomplishment?
- What is the participants' level of academic efficacy in terms of concentration, self-oriented decision making, other-oriented problem solving, and interpersonal climate?
- What is the participants' level of reading comprehension in terms of noting details, sequencing events, identifying the main idea, and drawing conclusions?
- Do the participants' well-being and academic efficacy significantly influence their reading comprehension?

RESEARCH METHODS

Research Design

The study used a quantitative descriptive-correlational research design. This design was appropriate because it allowed the use of standardized instruments to measure the well-being, academic efficacy, and reading comprehension of Grade 4 pupils in hinterland schools. The descriptive part of the design was used to determine the levels of well-being and academic efficacy across their dimensions, while the correlational part was used to examine the influence of well-being and academic efficacy on the pupils' reading comprehension.

This design was suitable because it allowed the researcher to identify the relationship among variables without manipulating them, which was appropriate in the natural setting of hinterland schools. A descriptive-correlational design is commonly used in educational research because it helps describe existing conditions and determine whether variables are related. In this study, it provided a basis for explaining how psychological factors such as well-being and academic efficacy are associated with reading comprehension in resource-limited learning environments.

Participants And Sampling Procedure

The participants of the study were Grade 4 pupils enrolled in selected hinterland public elementary schools in Cagayan de Oro City during School Year 2025–2026. Grade 4 pupils were chosen because this stage is an important period in elementary education, where learners move from basic literacy skills to more advanced reading comprehension. At this level, pupils' well-being and academic efficacy are important factors that may influence their engagement in learning and their reading performance.

The total population consisted of 211 Grade 4 pupils from six hinterland public elementary schools. The sample size of 137 participants was determined using the Taro Yamane formula, based on a 95% confidence level, 5% margin of error, and an estimated population proportion of 0.50. This sample size was considered enough to represent the population and provide reliable data for analyzing the relationship among well-being, academic efficacy, and reading comprehension.

A stratified random sampling technique was used to ensure proportional representation from each participating school. Each school served as a stratum, and the number of participants selected from each school depended on its share of the total Grade 4 population. Within each school, eligible pupils were listed by the class adviser, assigned corresponding numbers, and selected through the lottery method. This procedure gave all eligible pupils an equal chance of being chosen and helped reduce sampling bias.

Specific inclusion and exclusion criteria were also applied to ensure ethical and methodological consistency. Included in the study were pupils who were officially enrolled in Grade 4 during SY 2025–2026, regularly attending classes during the third grading period, able to understand and answer the questionnaires, and with parent or guardian consent and pupil assent. Excluded from the study were pupils who were absent during data collection, whose parents or guardians did not allow participation, or who had formally identified special educational needs that significantly affected reading comprehension. Overall, these procedures helped ensure that the selected participants were representative of the target group while maintaining ethical safeguards throughout the study.

DATA ANALYSIS

For Research Questions 1 to 3, descriptive statistics were used to determine the levels of pupils' well-being, academic efficacy, and reading comprehension. These included the mean, frequency, percentage distribution, and standard deviation, which provided a clear description of the average responses, their distribution, and the consistency of the data across the different dimensions.

For Research Question 4, multiple regression analysis was employed to examine the influence of well-being and academic efficacy on reading comprehension. This statistical treatment was appropriate because it

measured the predictive relationship between the independent variables and the dependent variable. The 0.05 level of significance served as the basis for testing the null hypothesis.

Before conducting the regression analysis, diagnostic tests were performed to ensure that the data met the assumptions required for multiple regression. These included linearity, absence of multicollinearity, normality of residuals, homoscedasticity, and independence of observations. The results confirmed that the assumptions were satisfied, which strengthened the validity and accuracy of the regression analysis. Overall, these procedures provided a sound basis for interpreting the influence of well-being and academic efficacy on reading comprehension.

RESULTS AND DISCUSSION

Problem 1. What is the participants' level of wellbeing in terms of the following dimensions:

1.1. Positive emotions;

1.2. Engagement;

1.3. Relationships;

1.4. Meaning; and

1.5. Accomplishment?

Table 1 Summary Table of Participants' Level of Well-Being

Dimensions	Mean	Interpretation	SD
Positive Emotions	2.63	High	0.42
Engagement	2.78	High	0.44
Relationships	2.71	High	0.45
Meaning	2.95	High	0.36
Accomplishment	2.90	High	0.41
Overall Well-Being	2.79	High	0.19

The findings revealed that the overall well-being of the participants was high ($M = 2.79$, $SD = 0.19$), indicating that Grade 4 pupils in selected hinterland public elementary schools generally experience positive and supportive school environments. Among the five dimensions, Meaning obtained the highest mean, showing that pupils commonly perceive their schoolwork as important and relevant, while Positive Emotions registered the lowest mean, although it remained within a favorable level. These results suggest that the learners generally experience emotional support, social connection, and purpose in their academic experiences, which may strengthen their motivation and participation in school tasks. The low standard deviation further indicates consistency in the pupils' perceptions of their well-being. Related studies support these findings by emphasizing that subjective well-being, engagement, meaningful learning, supportive relationships, and mastery experiences contribute positively to learners' academic functioning and persistence. Taken together, the results imply that well-being serves as an important psychological foundation that supports learners' readiness, engagement, and participation in academic activities, especially in geographically isolated and resource-constrained school settings.

Problem 2. What is the participants' level of academic efficacy in terms of the following facets:

- 2.1 Concentration;
- 2.2 Self-Oriented Decision Making;
- 2.3 Other-Oriented Problem Solving; and
- 2.4 Interpersonal Climate?

Table 2 Summary Table of Participants' Level of Academic Efficacy

Dimensions	Mean	Interpretation	SD
Concentration	2.47	Moderate	0.47
Self-Oriented Decision Making	2.80	High	0.37
Other-Oriented Problem Solving	2.73	High	0.48
Interpersonal Climate	3.36	High	0.35
Overall Academic Efficacy	2.84	High	0.22

The findings show that the overall academic efficacy of the participants was high ($M = 2.84$, $SD = 0.22$), indicating that Grade 4 pupils in selected hinterland public elementary schools generally have confidence in their ability to manage academic tasks and responsibilities. Among the four dimensions, Interpersonal Climate obtained the highest mean, suggesting that supportive relationships and positive classroom interactions strongly contribute to pupils' academic confidence. In contrast, Concentration received the lowest mean, though still within an acceptable level, indicating that some learners may have trouble in sustaining attention during academic tasks. The results imply that academic efficacy among pupils is shaped not only by confidence in personal decision-making and problem-solving, but also by the quality of their social interactions and their ability to remain focused on learning tasks. Related studies support these findings by emphasizing that self-efficacy promotes persistence, strategic learning, collaboration, and academic engagement, all of which contribute to improved performance. Overall, the results suggest that academic efficacy serves as an important factor in helping learners manage academic demands even in geographically isolated and resource-constrained school settings.

Problem 3. What is the participants' level of reading comprehension in terms of:

- 3.1 Noting Details;
- 3.2 Sequencing Events;
- 3.3 Identifying the Main Idea; and,
- 3.4 Drawing Conclusions

Table 3 Summary Table of Participants' Level of Reading Comprehension

Dimensions	Mean	Interpretation	SD
Noting Details	2.69	Beginning	1.27
Sequencing Events	2.85	Beginning	1.42
Identifying the Main Idea	2.80	Beginning	1.28
Drawing Conclusions	2.82	Beginning	1.33

Overall Level	2.79	Beginning	0.98
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Legend: 0-2.99 (Beginning); 3.00-3.99 (Developing); 4.00-5.00 (Proficient)

The summary table **shows** that all four reading comprehension skills, namely noting details ($M = 2.69$), sequencing events ($M = 2.85$), identifying the main idea ($M = 2.80$), and drawing conclusions ($M = 2.82$), are at the Beginning level. This finding **is** an indication that the pupils are still weak in both basic and higher-level reading skills. It is also a sign that many learners are not yet independent in understanding written texts. Skills such as identifying important details, arranging events in order, getting the main idea, and drawing conclusions are still underdeveloped among the pupils.

These findings are consistent with other studies which show that reading comprehension is not only the ability to read words but is also the ability to understand meaning. It is a process in which the learner is expected to connect the ideas in the text with prior knowledge. When pupils are weak in these skills, their understanding of the text is limited. This condition **is** a serious concern because reading comprehension is an essential skill in all learning areas. Overall, the findings are a reminder that the pupils are in need of more support and practice to improve their reading comprehension, especially in schools where learning resources are limited.

Problem 4. Do the participants' well-being and academic efficacy significantly influence their reading comprehension?

Ho₁. The participants' well-being and academic efficacy do not significantly influence their reading comprehension.

Ho₂: The participants' well-being does not significantly influence their reading comprehension.

Ho₃: The participants' academic efficacy does not significantly influence their reading comprehension.

Table 4 presents the results of the regression analysis conducted to determine whether the participants' well-being and academic efficacy significantly influence their reading comprehension. The regression analysis showed that the overall model was statistically significant, $F(2,134) = 7.26$, $p = .001$, indicating that well-being and academic efficacy collectively have a significant influence on reading comprehension. This result led to the rejection of the null hypothesis. The model further revealed a weak positive relationship between the predictors and reading comprehension ($R = .313$). Moreover, the coefficient of determination ($R^2 = .098$) showed that 9.8% of the variance in reading comprehension could be explained by well-being and academic efficacy taken together, while the remaining variation may be due to other factors not included in the study. In terms of individual contribution, both well-being ($B = 1.214$, $p = .004$) and academic efficacy ($B = .947$, $p = .010$) significantly predicted reading comprehension, indicating that higher levels of these variables are associated with better reading performance. These findings suggest that although well-being and academic efficacy are significant predictors, reading comprehension is also shaped by other academic, cognitive, and contextual factors.

Table 4 Regression Analysis of the Influence of Well-Being and Academic Efficacy on Reading Comprehension

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3.289	1.598		-2.06*	.041
Well-Being	1.214	.420	.237	2.89**	.004
Academic Efficacy	.947	.364	.214	2.60*	.010

Model Summary

$R = .313$ $R^2 = .098$ Adjusted $R^2 = .084$ $F(2,134) = 7.26^{**}$ $p = .001$

** significant at 0.01 level; * significant at 0.05 level

CONCLUSION

Reading comprehension is an essential skill in the academic development of Grade 4 pupils, especially in hinterland public elementary schools where learning resources are often limited. The findings of the study show that well-being and academic efficacy both contribute significantly to reading comprehension, as these factors help learners stay motivated, engaged, and confident in accomplishing reading tasks. While well-being supports pupils' emotional and psychological readiness to learn, academic efficacy strengthens their persistence, focus, and confidence in dealing with reading activities. Together, these internal psychological factors help learners develop important comprehension skills such as identifying main ideas, noting details, sequencing events, and drawing conclusions.

The study also contributes to the literature by highlighting the combined influence of well-being and academic efficacy in a context that remains underexplored in Philippine educational research, particularly among pupils in geographically isolated and resource-constrained schools. These findings are supported by Social Cognitive Theory, which emphasizes the role of self-belief in shaping motivation and performance, and by Seligman's PERMA Model, which views well-being as a key resource for learner engagement and readiness. Overall, the results suggest that improving pupils' well-being and strengthening their academic efficacy may help enhance reading comprehension and support literacy development in challenging school contexts.

RECOMMENDATIONS

Based on the findings and conclusions of the study, the following recommendations are proposed:

1. That Parents and Guardians may
 - 1.1 set a regular home reading schedule of at least 15–20 minutes daily to help children practice reading comprehension skills.
 - 1.2 engage children in guided reading discussions, such as asking questions about characters, events, and main ideas after reading short stories or passages.
 - 1.3 monitor and support children's study habits, encouraging them to complete reading tasks and assignments before engaging in recreational activities.
2. That Grade 4 Teachers may
 - 2.1 implement structured reading comprehension activities aligned with Phil-IRI competencies, focusing on identifying details, sequencing events, determining the main idea, and drawing conclusions.
 - 2.2 may use guided reading and small-group instruction to support pupils who demonstrate frustration-level reading comprehension.
 - 2.3 may incorporate classroom strategies that enhance concentration, such as short reading tasks, interactive discussions, and focused reading exercises.
3. That School Administrators may
 - 3.1 strengthen school-based reading programs, such as remedial reading sessions and literacy intervention classes for pupils performing at the frustration level.
 - 3.2 provide professional development for teachers on effective reading comprehension strategies and learner engagement techniques.
 - 3.3 support programs that promote learners' well-being, such as positive classroom climate initiatives and pupil support activities.
4. That Future Researchers may
 - 4.1 examine additional variables that may influence reading comprehension, such as teacher instructional practices, parental involvement, and classroom learning environment.
 - 4.2 replicate the research in other grade levels or districts to determine whether similar results occur in different educational contexts.

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