



# THE RELATIONSHIP BETWEEN ATTITUDES AND PROFICIENCY OF JUNIOR HIGH SCHOOL STUDENTS AS MEDIATED BY READING SELF-EFFICACY: AN EXPLANATORY SEQUENTIAL DESIGN

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## ABSTRACT

This study explores the intricate relationships between reading attitudes, reading proficiency, and reading self-efficacy among junior high school students in Region XII, Philippines, using an explanatory sequential mixed-method design. Quantitative data were collected from 350 students through validated instruments, including the SARA questionnaire and Preliminary English Test (PET), while qualitative insights were gathered from interviews and focus group discussions with 17 participants.

The quantitative findings reveal a strong positive correlation between reading attitudes and proficiency ( $r = .650$ ), as well as between attitudes and self-efficacy ( $r = .478$ ). Despite this, mediation analysis showed that reading self-efficacy did not significantly mediate the relationship between reading attitudes and proficiency (Sobel  $z = 0.825$ ,  $p = .409$ ). The results highlight that while self-efficacy contributes to confidence in reading tasks, its mediating influence is minimal, with attitudes playing the dominant role in influencing proficiency.

The qualitative phase underscores critical themes: students with positive attitudes actively seek challenging texts, showing persistence and adaptive strategies when confronted with difficult materials. Participants highlighted the role of personal interest, intellectual growth, and consistent engagement in shaping positive reading attitudes. Moreover, exposure to various academic and recreational reading formats (print and digital) fosters motivation and skill improvement.

This study emphasizes the direct impact of reading attitudes on proficiency and suggests interventions that prioritize fostering positive attitudes and creating engaging reading experiences. The findings offer actionable insights for educators and policymakers aiming to address literacy challenges among Filipino students.

**KEYWORDS:** Reading Attitudes, Reading Proficiency, Reading Self-Efficacy, Junior High School Students, Mixed-Methods Research

## CHAPTER 1

### INTRODUCTION

Proficient reading is an active process of comprehending authentic text and its purpose (Clifford & Cox, 2013). As cited by Connors-Tadros (2014); Cox et al. (2019); Mclean, et al. (2020) reading proficiency refers to the skills needed to understand the written text, interpret meaning, and utilize that meaning based on the purpose and situation.

However, the problem on reading proficiency is evident in the worldwide landscape. In the report of United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UIS) in 2017, globally, 61 percent of those in the age range of 12-15 years old show inability to understand the literal meaning of sentences within a single short passage. Similarly, Spencer and Wagner (2018) cited that in the United States, there are students who have problems in making inferences beyond the text.

World Bank's 2022 data on learning poverty show that nine (9) out of 10 Filipino children aged 10 struggle to read or understand simple text. Studies conducted related to reading like that of Tomas et al. (2021); and Carraig, and Quimbo (2022) also show that students belonged to frustration level of reading proficiency which means they only recognize some words in the reading text but they lack understanding of what they read.

Furthermore, the Philippine – Informal Reading Inventory (Phil-IRI) English Post-Test result in the secondary schools revealed that most of the readers belong to frustrated and instructional reading levels and only few are considered independent readers. Readers classified in the frustration and instructional level in reading have difficulties in understanding the texts read. The Regional Standardized Assessment conducted to Region XII schools revealed that Grade 10 students have low proficiency in



English, numeracy and literacy, and in information literacy (Learning Recovery and Continuity Plan, 2022).

With the readings done by the research it was found out that there are two variables that are proved to be relevant and related to reading proficiency. These variables are reading attitude and reading self-efficacy. For Tisa et al. (2021), reading attitude is the feeling that causes someone to read or avoid reading. Meanwhile, reading self-efficacy is described by Unrau et al. (2018) as the reader's perception of their competence to comply a reading task.

There are studies pointing out the correlation of reading self-efficacy with reading proficiency (Graham et al., 2020). Self-efficacious readers are not only performing better but also more likely to persist through difficult reading tasks (Dadandi, & Dadandi, 2022). Similarly, Shehzad et al. (2020) posited that those who perceived higher self efficacy learners are more likely to persist in their reading tasks, thus, improving proficiency.

As pointed out by Hassan (2024), a study can have several research gaps. This study filled the population and knowledge gaps as the pathway through which reading attitude, proficiency and self-efficacy interact and influence each other, particularly in the context of Filipino junior high school students, remains underexplored. Most of the studies, particularly foreign studies (like studies of Wade, 2012; Shelley, 2012) are focused on the elementary level since reading should be strengthened in the formative years and teachers should be aware of the interplay of these factors so immediate intervention could be implemented. Moreover, it addressed the methodical gap since in the Philippines, studies on reading proficiency (like Bacong & An, 2020; Navarra, 2023) focused on quantitative designs, while this study had three variables to be investigated through sequential explanatory mixed method design. This mixed-methods approach allowed a comprehensive exploration of how reading attitudes and self-efficacy collectively influence reading proficiency, providing empirical evidence to inform targeted interventions aimed at enhancing reading outcomes.

This study investigated the mediating role of reading self-efficacy between reading attitudes and reading proficiency among junior high school students in Region XII and served as a baseline data for an intervention program designed to increase the reading proficiency of the students as informed by their reading attitude and self-efficacy. For the concerned individuals such as reading teachers, school heads and other education leaders to be informed about the study, this was presented during the school, district and division learning action cell and in-service trainings. This was also presented during the regional research forum for wider audience.

### Purpose Statement

The goal of this mixed-method explanatory sequential design was to determine the reading attitude, reading proficiency, and the mediating effect of reading self-efficacy on the relationship between reading attitude and reading proficiency of Junior High

School students from different public schools in Region XII. From the quantitative phase, qualitative phase followed. This was done to gather data after the statistical analysis of the relationships of the variables; and to validate the mediation model derived from the quantitative results.

### Research Questions

1. What is the level of reading attitudes, reading proficiency and reading self-efficacy, and among junior high school students across various public schools in Region XII?
2. What is the significance of the mediating effect of reading self-efficacy on the relationship between reading attitudes and reading performance among junior high school students across various public schools in Region XII?
3. What are the standpoints of the participants on the significant points of the quantitative results?
4. How do the qualitative results explain the quantitative results of the study?

## CHAPTER 2 METHODOLOGY

### Research Design

The study utilized explanatory sequential mixed methods with mediation analysis and phenomenology. Mixed method research design is defined by Dawadi et al. (2021) as principled complementary research method combining quantitative and qualitative research approaches. For Ary et al. (2010), this design integrates the advantages of quantitative and qualitative methodologies to address research inquiries. This approach encompasses distinct quantitative and qualitative stages, each pursued autonomously. The quantitative outcomes and qualitative discoveries are merged to achieve a comprehensive exploration and deeper comprehension of the phenomena (Ivankova et al., 2006).

Sequential explanatory mixed-methods approach, according to Creswell and Guetterman, (2018) starts with collecting quantitative data from participants, which will be supplemented with qualitative insights. During the first phase of the study, the quantitative phase, descriptive-correlation, a design for calculating relationships (Schmitz, 2012) was employed as it will investigate the relationship between the reading attitude and reading proficiency. As pointed out by Hayes and Preacher (2014), mediating analysis is used to help in clarifying the relationship between an variables via a mediator variable. In this study, the use of mediating analysis was appropriate since this investigated how two the relationship of two identified variables is mediated by another variable. Mediating analysis was also employed to find out the mediating effect of self-efficacy to the relationship of reading attitude and performance.

Moreover, in the second stage, phenomenology was utilized. Phenomenological research gathers data about the shared in the phenomenon (Christensen et al., 2017; Creswell, 2013). When applied to researches in education, Alhazmi, and Kaufmann (2022) claimed that the use of phenomenology through,



participant observation, and reflective analysis, phenomenological inquiry facilitates a nuanced exploration of the complexities inherent in educational contexts. By employing phenomenology, researchers can gain deeper insights into the subjective realities of individuals.

In this study, mixed sequential explanatory design was utilized since it first investigated the reading self-efficacy towards the relationship between reading attitude and proficiency; then, a qualitative phase followed in order to gather more data to substantiate the quantitative results. The researcher chose sequential explanatory design to have a narrative data that will explain the relationship and the mediating effects of the variables.

### Research Participants

#### Quantitative

In the quantitative phase, the respondents of the study were 350 Grade 10 students from the Junior High school of the public schools in the whole Region XII - SOCCSKSARGEN. This sample size is considered by White (2023) as higher sample size but can be justifiable since students are easy to access and they are numerous. As cited by Memon et al. (2020) sample size can be justified depending on the statistical analysis to be used and pointed out that 200 or more sample size is considered for correlation analysis.

As an inclusion criteria, these students must have been enrolled during the school year 2024-2025; a bonafide Grade 10 students of a public school in Region XII; and have given the assent form to participate in this study. Excluded in the study are grade 10 students who are not enrolled in the public schools. Stratified random sampling was utilized to choose the sample. The random selection aimed to ensure a representative sample of the population under study, minimizing selection bias.

#### Qualitative

Following the quantitative analysis, a purposive random sampling technique was used to identify and select 17 participants for deeper exploration through focus group discussions and interviews. These participants were chosen from the quantitative

respondents who responded low and high to the items in the questionnaires. There were 5 participants whose ratings are low; and 5 participants whose rating are high to be included in the qualitative data gathering particularly for the interviews. For focused group discussion (FGD), there were two groups with 3 and 4 participants. Setting the participants for FGD with 3 and 4 members for each group is based on the idea of Mishra (2016) that focus grouped discussion can be successfully done with 3 and when having more than 3 participants, it should be ensured manageable.

### Data Analysis

#### Quantitative

Descriptive statistics, such as mean and standard deviation, provided a summary of the data points, offering insights into the central tendency and variability of the dataset about the reading attitude, proficiency and self-efficacy. Inferential statistics, including Pearson's R (for correlation analysis) and linear regression (for predicting relationships between variables), were employed to draw conclusions about the population from the sample data. Additionally, the Sobel Ztest was utilized in creating Medgraph analysis of the mediating effect of self-efficacy to the relationship of reading attitude and proficiency.

#### Qualitative

The qualitative data from FGDs and IDIs were transcribed and subjected to thematic analysis. Thematic analysis was conducted to extract themes that encapsulate the underlying patterns and insights from the qualitative data.

### Research Instrument

#### Quantitative Strand

The SARA questionnaire, developed by McKenna et al. in 2012, was utilized to gauge the reading attitudes of adolescent students. This survey is structured to explore adolescent learners' attitudes towards reading across four distinct aspects: academic print, academic digital, recreational print, and recreational digital. The following rating scale was used in the interpretation of the respondent's responses in the survey:

Range of Means	Description	Interpretation
4.20-5.00	Very High	Reading self-efficacy is always manifested
3.40-4.19	High	Reading self-efficacy is most of the time manifested
2.60-3.39	Moderate	Reading self-efficacy is sometimes manifested
1.80-2.59	Low	Reading self-efficacy is very seldom manifested
1.00-1.79	Very Low	Reading self-efficacy is not manifested

Previous researches by Conradi et al., (2013); Wang and Jin (2020) have confirmed the SARA's validity and reliability in evaluating adolescents' reading attitudes, with Cronbach's alpha demonstrating strong reliability for both individual components and the overall scale.

*Preliminary English Test (PET)*. Cambridge English Language Assessment (2014) was employed to determine students' reading

proficiency levels. The PET evaluates intermediate B1-B2 level reading skills according to the framework for Languages.

*Reading Self-efficacy Questionnaire*. This instrument developed and validated by Koşar et al. (2022) was used to measure the reading self-efficacy of the Junior High School students under study. The authors claimed that this is a 16-item tool is designed to measure the variables.



### Qualitative Strand

Semi-structured interviews offer researchers the flexibility to delve deeper into topics by requesting further details from participants, steering the dialogue toward areas relevant to their study. This method enriches the comprehension of quantitative data collected from adolescent learners. The interview framework will consist of primary questions that target specific findings obtained through the SARA and the QESE reading assessment. These inquiries aim to explore the various factors that affect reading behaviors (e.g., “What experiences have negatively or positively impacted the way you feel when you read? Why?”).

## CHAPTER 3 RESULTS

### Quantitative Results

#### Level of Reading Attitudes, Reading Proficiency and Reading Self-efficacy

**Reading attitudes.** Table 1.1 shows the data on reading attitudes and reading self-efficacy. The data reveal that the students demonstrate a high level of reading attitude, with a mean score of 4.08. When broken down by the type of material, students exhibit the highest reading attitude towards recreational print materials, with a mean score of 4.28, categorized as Very High. In contrast,

their attitudes towards academic print and academic digital materials are slightly lower but still rated as High (with mean scores of 3.91 and 3.96, respectively). Their attitude towards recreational digital materials also falls within the High category, with a mean score of 4.17.

Meanwhile, the standard deviations for all categories are moderate, suggesting that while most students share similar attitudes to reading, there is still a noticeable amount of variability in individual responses. The highest SD values appear in areas related to recreational reading, both in print and digital formats, suggesting that preferences and attitudes toward leisure reading materials are more diverse compared to academic materials.

**Reading Self-efficacy.** The data on *reading self-efficacy* show that students scored a mean of 4.00, indicating a High level of self-confidence in their reading abilities. The SD values 0.56 for reading self-efficacy also suggest that while most students feel confident in their reading abilities, there are still some students who may feel less certain about their reading self-efficacy.

These results suggest that junior high school students not only enjoy reading, particularly for recreational purposes, but also feel confident in their reading capabilities, which likely contributes to their motivation and overall reading success.

**Table 1.1**  
*Level of Reading Attitudes and Reading Self-Efficacy of Junior High School Students*

Main Variables/Indicators	SD	Mean	Descriptive Level
<b>Reading Attitudes</b>	<b>0.42</b>	<b>4.08</b>	<b>High</b>
Reading Attitude towards Academic Print	0.54	3.91	High
Reading Attitude towards Academic Digital	0.58	3.96	High
Reading Attitude Towards Recreational Print	0.59	4.28	Very High
Reading Attitude Towards Recreational Digital	0.63	4.17	High
<b>Reading Self-Efficacy</b>	<b>0.56</b>	<b>4.00</b>	<b>High</b>

**Reading Proficiency.** On table 2.1 are the data of the mediating variable, the *reading proficiency* with different types of reading tasks and comprehension skills assessed.

**Table 1.2**  
*Level of Reading Proficiency of Junior High School Students*

Indicators	SD	Mean Percentage	Descriptive Level	Mean (Average)	Descriptive Level
Reading for Short Notices	14.56	79.54	Developing Proficiency	3.98	High
Reading for Special Information	15.09	77.80	Developing Proficiency	3.89	High



Processing Factual Texts	17.39	70.72	Developing Proficiency	3.76	High
Reading for Detailed Comprehension	14.93	88.44	Proficient	4.42	Very High
Understanding Vocabulary and Grammar	17.40	70.82	Developing Proficiency	3.76	High
<b>OVERALL</b>	9.41	<b>77.46</b>	<b>Developing Proficiency</b>	<b>3.96</b>	<b>High</b>

The overall reading proficiency of junior high school students is categorized as Developing Proficiency, with a mean percentage of 77.46%. This indicates that, on average, students are still working towards mastering their reading skills but demonstrate competence in several areas. The overall mean score of 3.96, which falls within the High, suggests that students generally rated their reading abilities high, but there is still room for improvement.

Specifically, reading for short notices has a mean percentage of 79.54%, which falls under Developing Proficiency. For reading for special information, the mean percentage is 77.80%, which is within the Developing Proficiency range. When it comes to processing factual texts, the mean percentage is 70.72%, categorized as Developing Proficiency. This shows that students are still developing their abilities on these mentioned aspects.

For reading for detailed comprehension, students excelled, with a mean percentage of 88.44%, placing them in the Proficient category. This indicates that they are highly skilled at understanding texts in detail. The mean score of 4.42, classified as Very High, reflects strong self-confidence in their ability to comprehend the texts.

In the last indicator, understanding vocabulary and grammar, the mean percentage is 70.82%, categorized as Developing Proficiency. This shows that students are still working to improve their understanding of vocabulary and grammar in texts.

#### **Mediating effect of reading self-efficacy on the relationship between reading attitudes and reading performance**

Before generating the mediation model, correlation between variables were computed. In the case of the three variables- the reading attitude, proficiency and self-efficacy, the correlations of the three variables are all significant as shown in table 2.1.

**Table 2.1**  
*Correlation between Measures*

Variable	Reading Proficiency			Reading Self-Efficacy		
	r-value	p-value	Sig. level	r-value	p-value	Sig. Level
Reading Attitudes	.650	.000	Sig	<b>.478</b>	0.000	<b>Sig</b>
Reading Self-Efficacy	.339	.000	Sig			

As shown in the data, there is a significant relationship between reading attitudes and reading proficiency with the generated p-value of less than 0.05 and correlation coefficient,  $r=.650$ . It was also reflected that reading self-efficacy and reading performance are significantly linked as indicated in the p-value of .000 and the correlation value of .339. In addition, reading attitude has a significant relationship with reading self-efficacy as manifested in the p-value of 0.000 and correlation value of .478.

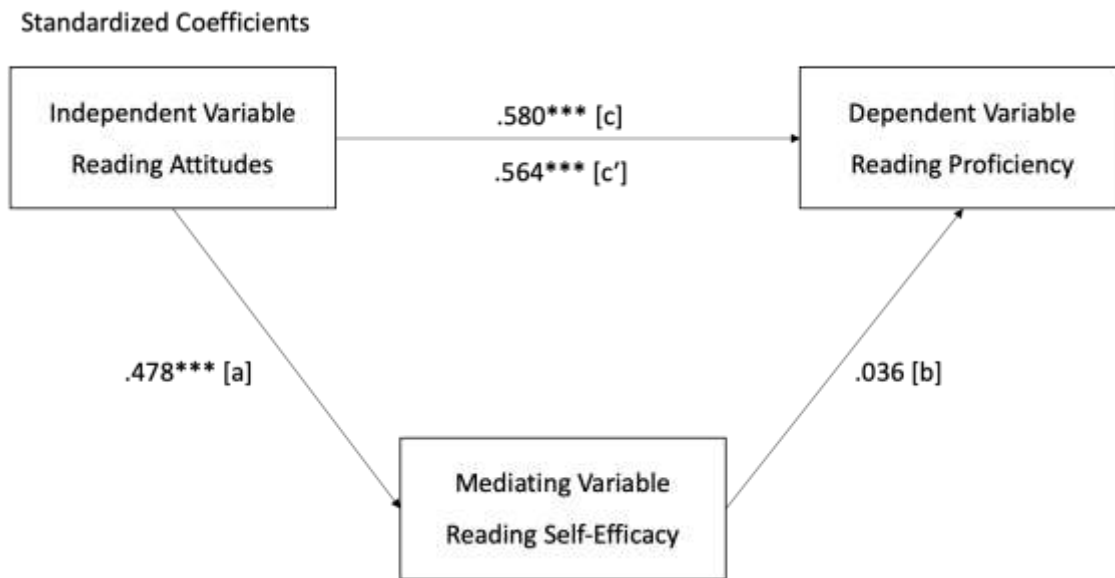
Presented in table 2.2 is the result of the regression analysis which was conducted to explore the interrelationships between the variables and to validate the beta coefficients in the context of mediation analysis. Mediation refers to the process by which a third variable influences the relationship between two other variables. For a true mediation effect to exist, three conditions must be met by the third variable.

**Table 2.2 - Date Entry for the Different Paths**

Independent Variable	(IV)	Reading Attitudes	
Dependent Variable	(DV)	Reading Proficiency	
Mediating Variable	(MV)	Reading Self-Efficacy	
<b>STEPS</b>			
1. Path C (IV and DV)			
Reading Proficiency Regressed on Reading Attitudes			
	B (Unstandardized regression coefficient)		0.649
	e (Standard error)		0.034
	Significance		0.000
2. Path B (MV and DV)			
Reading Proficiency Regressed on Reading Self-Efficacy			
	B (Unstandardized regression coefficient)		0.036
	e (Standard error)		0.029
	Significance		0.409
3. Path A (IV and MV)			
Reading Self-Efficacy Regressed on Reading Attitudes			
	B (Unstandardized regression coefficient)		0.478
	e (Standard error)		0.060
	Significance		0.000
4. Combined Influence of MV and IV on DV			
Reading Proficiency Regressed on Reading Self-Efficacy and Reading Attitudes			
Reading Self-Efficacy:			
	B (Unstandardized regression coefficient)		0.024
	SE (Standard error)		0.029
	Beta (Standardized regression coefficient)		0.036
	Part Correlation		0.339
Reading Attitudes:			
	B (Unstandardized regression coefficient)		0.564
	SE (Standard error)		0.039
	Beta (Standardized regression coefficient)		0.633
	Part Correlation		0.650
Total r Square			0.423

**Results:**

Significance of Mediation		Not Significant
Sobel z-value	0.8251295	p=0.409
95% Symmetrical Confidence Interval		
Lower	0.646	
Upper	0.512	
Unstandardized indirect effect		
a * b	0.015	
se	0.028	
Effect size Measures		
Standardized Coefficients		
Total:	0.580	
Direct:	0.564	
Indirect:	0.015	
Indirect to Total Ratio:	0.027	



**Figure 3: Regression Paths among Three Variables**

The mediation analysis results indicate that Reading Self-Efficacy (MV) does not significantly mediate the relationship between Reading Attitudes (IV) and Reading Proficiency (DV). The Sobel test results show a z-value of 0.825 with a  $p$ -value of 0.409. Since the  $p$ -value is greater than 0.05, this indicates that the mediation effect is not statistically significant. Therefore, there is no significant indirect effect of Reading Attitudes on Reading Proficiency through Reading Self-Efficacy. The unstandardized indirect effect is 0.015 with a standard error of 0.028. This small effect, combined with its lack of statistical significance, suggests that the impact of Reading Attitudes on Reading Proficiency through Reading Self-Efficacy is minimal.

The standardized direct effect (c path) of Reading Attitudes on Reading Proficiency is 0.564, which is significant, indicating a strong direct relationship between the two variables. The total effect of Reading Attitudes on Reading Proficiency is 0.580, which includes both direct and indirect effects. Since the indirect effect is minimal, the total effect is almost entirely due to the direct effect. The Indirect to Total Ratio is 0.027, suggesting that only about 2.7% of the total effect of Reading Attitudes on Reading Proficiency is accounted for by the indirect pathway through Reading Self-Efficacy. This is a very small proportion, reinforcing that the mediation effect is negligible.

Specifically, Figure # also shows that in *Path a* ( $IV \rightarrow MV$ ), the standardized coefficient for the effect of the independent variable (Reading Attitudes) on the mediating variable (Reading Self-Efficacy) is 0.478, which is significant. This suggests that Reading Attitudes has a strong, positive influence on Reading Self-Efficacy.

On the *Path b* ( $MV \rightarrow DV$ ), the standardized coefficient for the effect of the mediating variable (Reading Self-Efficacy) on the

dependent variable (Reading Proficiency) is 0.036, which is not significant. This indicates that Reading Self-Efficacy does not significantly affect Reading Proficiency when Reading Attitudes is taken into account. The small and non-significant coefficient suggests that Reading Self-Efficacy is not a meaningful contributor to Reading Proficiency in this model.

*Path c* (Total Effect of  $IV \rightarrow DV$ ) showed that the total effect of Reading Attitudes on Reading Proficiency (before accounting for mediation) is 0.580 and is significant. This indicates that Reading Attitudes has a strong, direct relationship with Reading Proficiency.

Also, *Path c'* (Direct Effect of  $IV \rightarrow DV$  with  $MV$  as a mediator) showed that when Reading Self-Efficacy is included in the model as a mediator, the direct effect of Reading Attitudes on Reading Proficiency is 0.564, which remains significant and close to the total effect. The slight reduction from 0.580 to 0.564 suggests that a very small part of the relationship between Reading Attitudes and Reading Proficiency is explained by Reading Self-Efficacy, but this indirect effect is minimal.

Since path b ( $MV$  to  $DV$ ) is not significant and the indirect effect is very small (only about 2.7% of the total effect), Reading Self-Efficacy does not meaningfully mediate the relationship between Reading Attitudes and Reading Proficiency. The effect of Reading Attitudes on Reading Proficiency is mostly direct (path  $c'$ ), with minimal influence from the indirect pathway ( $a \times b$ ).

Therefore, the results indicate that Reading Attitudes has a significant direct effect on Reading Proficiency. However, Reading Self-Efficacy does not serve as a significant mediator in this relationship. The mediation effect is minimal and statistically non-significant, with only a tiny portion of the effect occurring



through Reading Self-Efficacy. This suggests that interventions aimed at improving Reading Proficiency may benefit more from directly enhancing Reading Attitudes rather than focusing on Reading Self-Efficacy as a mediator.

#### *Qualitative Results*

#### **Standpoints of the Participants on the Quantitative Results Regarding the Level of Reading Attitude, Reading Proficiency, and Reading Self-efficacy**

**Confirmed High Rating of Reading Attitude.** The data from the interviews and focused group discussions among junior high school students reveal that they formed positive reading attitude towards academic print, academic digital, recreational print, and recreational digital reading materials.

The students are shaping attitudes towards academic print by selecting materials that align with personal interest, perceived value, and curiosity about the topic. Students express a strong connection between their reading motivation and the alignment of academic materials with their personal interests.

**Confirmed High Rating of Reading Proficiency.** Confirmed high rating of reading proficiency is evident on students' proficiency when reading for short notices, special information, processing factual texts, reading for detailed comprehension, and when understanding vocabulary and grammar. Reading proficiency is clearly manifested in the way students engage with short notices.

Students share that use skimming and scanning techniques to quickly identify key points, which enhances efficiency, especially when time is limited.

#### **Standpoints of the Participants on the Mediating Effect of Reading Self-efficacy on the Relationship between Reading Attitude and Reading Proficiency**

Table 5 reveals the standpoints of the participants on the mediating effect of reading self-efficacy on the relationship between reading attitude and reading proficiency of junior high school students in Region XII. The table further reveals essential themes such as: confirmed importance of reading attitude to reading performance, confirmed absence of the Mediating Effect of Reading Self-Efficacy (RSE) on the Relationship between Reading Attitudes (RA) and Reading Proficiency (RP), and the Acceptance of the Mediating Effect of Reading Self-Efficacy (RSE).

**Confirmed importance of reading attitude to reading performance.** The importance of reading attitudes (RA) to reading proficiency (RP) is clearly confirmed, as positive reading attitudes are shown to significantly enhance engagement with reading materials, ultimately leading to improved reading proficiency.

**Confirmed the Absence of the Mediating Effect of Reading Self-Efficacy (RSE) on the Relationship between Reading Attitudes (RA) and Reading Proficiency (RP).** The absence of a mediating effect of reading self-efficacy (RSE) on the relationship between reading attitudes (RA) and reading proficiency (RP) is clearly confirmed. Participants consistently emphasize that the connection between reading attitudes and reading proficiency remains strong, irrespective of their levels of reading self-efficacy.

#### **Data Integration of Quantitative and Qualitative Results**

Since this study adopts a mixed methods design with an explanatory sequential approach, Table 6 presents a joint display of the quantitative and qualitative results. The joint display integrates quantitative and qualitative data to enhance the understanding of the research results, showing how the qualitative insights elaborate on or explain the quantitative results.

**Status of Reading Attitudes (RA), Reading Proficiency (RP) and Reading Self-Efficacy (RSE).** The Reading Attitudes (RA) of students were rated high to very high (3.91 to 4.28) across four indicators: academic print, academic digital, recreational print, and recreational digital. The overall mean rating of 4.08 reflects a generally positive attitude towards reading in both academic and recreational contexts. The quantitative results (Table 1) confirm these positive attitudes, while the qualitative data (Table 4) supports this by highlighting four themes with positive core ideas, such as students' enjoyment and value of reading in different formats. Both quantitative and qualitative results align, showing that the nature of integration is merging or connecting.

The five indicators of Reading Proficiency: reading for short notices, reading for special information, processing factual texts, reading for detailed comprehension, and understanding vocabulary and grammar obtained high to very high-level ratings ranging from 3.76 to 4.42, indicating that students' reading proficiency is oftentimes evident as also shown in the overall mean rating of 3.96 or high (Refer to Table 1). The five indicators appeared as positive a priori themes in the qualitative results, based on the core ideas of participants generated from their responses. The nature of integration of both types of data is merging-connecting confirmation.

Status of Reading Self-Efficacy (RSE) has an overall mean of 4.00 or a high level, indicating that respondents often manifested this variable (Refer to Table 1). Informants/participants confirmed the presence of RSE, as shown in the core ideas generated from their responses (Refer to Table 5). The nature of integration of both types of data is merging-connecting confirmation.

**Relationship between Reading Attitudes (RA) and Reading Proficiency (RP).** A significant relationship ( $p < 0.05$ ) was found between Reading Attitudes (RA) and Reading Proficiency (RP), with a correlation value (r-value) of 0.650. This indicates a moderate positive correlation between students' attitudes towards



reading and their proficiency levels. The quantitative results (Table 2.1) confirm this significant relationship. Additionally, qualitative data (Table 5) from informants/participants further emphasizes the importance of Reading Attitudes (RA) in improving Reading Proficiency (RP). Both quantitative and qualitative findings confirm that a positive reading attitude contributes significantly to higher reading proficiency as manifested in the nature of integration which is merging-connecting confirmation.

**Mediating Effect of Reading Self-Efficacy (RSE) on the Relationship between Reading Attitudes (RA) and Reading Proficiency (RP).** The mediating effect of Reading Self-Efficacy (RSE) on the relationship between Reading Attitudes (RA) and Reading Proficiency (RP) was found to be not significant ( $p > 0.05$ ) with a z-value of 0.8251295. This indicates that Reading Self-Efficacy (RSE) does not significantly mediate the relationship between RA and RP. While some informants/participants suggested a potential mediating effect of RSE, the majority of informants confirmed that RSE does not significantly contribute to the influence of RA on RP. In summary, the quantitative data (Figure 3) and qualitative feedback (Table 5) both confirm that RSE does not serve as a significant mediator in the relationship between RA and RP. The nature of integration of both types of data is merging-connecting confirmation.

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