

# Learning Strategies, Student Engagement and Attitude towards School: A Causal Model on Reading Motivation of Students

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## ABSTRACT

**Aims:** To investigate the best fit model of student reading motivation.

**Study design:** Descriptive-causal

**Place and Duration of Study:** Department of Education (DepEd) Divisions of Cotabato, Koronadal, Kidapawan, Sultan Kudarat, and General Santos City during the school year 2022-2023.

**Methodology:** Data were gathered through survey questionnaires. The 400 grade 10 respondents were chosen through stratified random sampling. A structural equation model was used in accessing the sequence of interdependencies between independent and dependent variables.

**Results:** The overall results showed a high level of student learning strategies, engagement, and reading motivation. It was also revealed that the variable of the attitude of students towards school showed a moderate level of reluctance and a low level of loneliness at school and belongingness of the participants. There is a significant relationship between the three variables: learning strategies, engagement, and attitude toward school in reading motivation. All variables have a significant correlation. Of the five models developed, model 5 had indices that were consistent and indicated the best fit to the data.

**Conclusion:** The study proves the Achievement Goal Theory. Students' motivation helps them develop a desire to learn and succeed. It goes that motivation is essential in reading. Likewise, high-level ability in learning strategy, engagement, attitude towards school, and reading motivation contribute to the motivation of students in reading.

*Keywords: Teacher's perception, module innovation, self-efficacy, mathematics teachers, new normal, Davao del Sur*

## 1. INTRODUCTION

One of the key contributing factors to student success in school is by having the motivation to read. Through reading, one may acquire helpful information and increase knowledge. Reading requires motivation to read further (Manuas, Tatipang, and Pratasik 226). While uninterested students in reading show difficulties. They have problems in comprehension, exhibit a sense of failure, and display indisposed behavior. In a study by Hasibuan (131-139), it becomes difficult to search for information needed for reading and not participate in reading activities because of the lack of interest or motivation caused by the difficulty in understanding the text.

Motivation is one of the essential elements for a student to effectively learn and to create a positive learning environment (Hussain, Salam, and Faerud 15-28). According to Mousavi, Ebrahimian, Nasiri, and Mousavi (71-87), it tremendously affects the student's ability to learn. Highly motivated students would enjoy reading in reading activities. Thus, Ahmed and Ganapathy (1-10) mentioned that reading motivation is critical for children's reading comprehension.

The influence and compatibility of the learning strategy and students' reading motivation at any level of education are essential. The absence of conversation utilized in communication,

a student hardly ever engages in the discussion taking place in the four corners of the classroom. A study showed that metacognitive strategies positively affect children's reading comprehension. Thus, more attention should be given to using metacognitive strategies in activities that measure reading comprehension. Students may use such strategies themselves to make it more rewarding for themselves. The psychological factors of students, such as perception, motivation, belief, self-confidence, and others, should be considered in utilizing metacognitive strategies to address possible problems and ensure their effective use (Muhid, Eka, Halaliyah, Budhaina and Nizarudin 847-862).

Meanwhile, it was mentioned that the participation of students is necessary to maintain reading motivation because it benefits the reading activities, abilities, and participation of the student (Hebbecker, Forster, and Souvignier 419; Miyamoto, Pfof, and Artelt 445). Many studies prove that motivation is related to reading ability and improves cognitive skills (Parsons, Maloy, Parsons, Peters, and Burrowbridge 232-245). Moreover, participation in reading activities, whether at home or school, has a significant favorable influence not only on reading skills, language comprehension, and demonstration of language ability (Peng, Wang, Wang and Lin 189) as well as in the student interest in reading, reading habits and engagement in the classroom.

On the other hand, school behavior is considered a factor affecting student reading motivation. A school is a place where various educational activities are offered. Academic and non-academic information was shared with students. In addition, school behavior affects not only academic performance but also the students' happiness and the people around them (Zulfikar, Syarifa, and Sari 1-12). The perspective and behavior of students show several factors affecting school behavior. Factors such as behavior learned from parents, acceptance, socialization, companionship, liking teachers, friendships, and teaching methods can be related to student's behavior at school (Hodges, Cordier, Joosten, Bourke, and Speyer 13).

The abovementioned situations and to the researcher's knowledge, no local studies have been conducted to determine if there is a relationship between learning strategies, student engagement, school behavior, and reading motivation. It grabbed the researcher's interest in researching to help raise student reading motivation along with its independent variables; hence it should be studied.

This study aimed to investigate the best fit model of student reading motivation. The objectives of this study are the following. First, determine the level of learning strategies. Second, determine the level of student engagement. Third, determine the level of attitude towards school. Fourth, determine the level of students' reading motivation. Fifth, determine the significant relationship between learning strategy, participation, and school behavior in reading motivation. Sixth, to determine that there was no combined and single influence of learning strategies, student engagement, and attitude towards the school on reading motivation. Lastly, determine the best-fit reading motivation model.

The diagram shows the relationship between learning strategy, participation, academic behavior, and rea

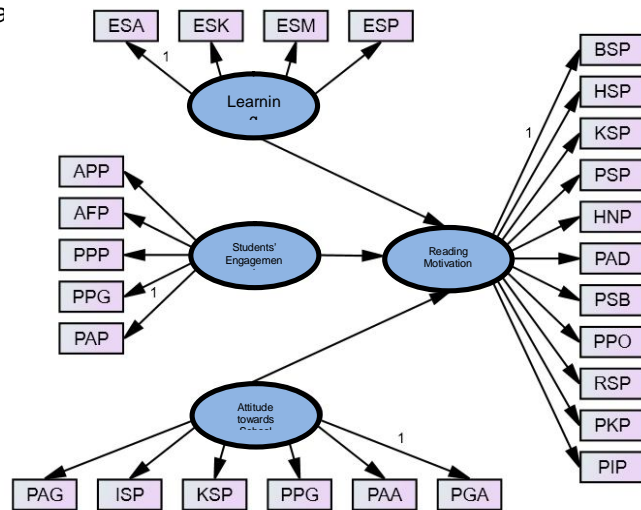


Fig. 1. The relationship between learning strategies, student engagement, attitude towards the school on reading motivation

Legend:

- |   |                                     |
|---|-------------------------------------|
| ESP= Memory Strategies                                  | PAA= Reluctance                     |
| ESM= Metacognitive Strategies                           | PGA= Belongingness                  |
| ESK= Cognitive Strategies                               | BSP= Reading Efficacy               |
| ESA= Social-Affective Strategies                        | HSP= Reading Challenge              |
| APP= Affective Engagement: Liking for Learning          | KSP= Reading Curiosity              |
| AFP= Affective Engagement: Liking For School            | PSP= Aesthetic Enjoyment of Reading |
| PPP= Behavioral Engagement: Effort and Persistence      | HNP= Importance of Reading          |
| PPG= Behavioral Engagement: Extra-curricular Activities | PAD= Compliance                     |
| PAP= Cognitive Strategies                               | PSB= Reading Recognition            |
| PAG= Teaching   | PPO= Reading for Grades             |
| ISP=2 School Image                                      | RSP= Social Reasons For Reading     |
| KSP= Loneliness at School                               | PKP= Reading Competition            |
| PPG= Testing and Feedback-Giving Activities             | PIP= Reading Work Avoidance         |

### Theoretical Framework

This study is based on the following theories to facilitate the relationship between the independent and dependent variables. In Achievement Goal Theory by [Spinath and Steinmayr \(1135\)](#), a reason for a student to work hard is to participate and become an expert in a task. In mastery of a specific task, if a student is eager to cultivate his ability and diligently works his way to understand a subject using the teaching tool. A student who possesses this theory is characterized by determination and self-regulation. Motivated person believes their hard work will be the reason for their success. They recognize the requirements to cultivate new skills, boost self-confidence, develop existing skills, and participate in various activities.

Social Cognitive Theory asserts that reward is obtained when a difficult task is accomplished, which raises interest in a particular task ([Pierce, Cameron, and Banko 561-563](#)). For example, when a child successfully reads a passage without making mistakes and receives a reward, he is likelier to participate in the subsequent tasks. The extrinsic reward increases the student's self-efficacy and confidence through his success, thus the reason for the increase in intrinsic motivation. Theoretically, its implication in motivation is it fulfills basic psychological needs such as connection, competence, and independence. Praise-giving and positive feedback-giving while performing tasks increase capacity and strengthen intrinsic motivation.

Reading motivation is also anchored in [Covington's Self-Worth Theory \(5-8\)](#) which can be associated with student self-esteem and competence to perform a task. It is better known for valuing society and recognizing personal achievement. In general, an adept individual often thinks he is more meritorious than those below him. The researcher selected the abovementioned theories as the basis of this study, especially to elicit student motivation in reading through the Achievement Goal Theory. The theories of Social Cognitive Theory and Self-Worth Theory are also included in this study to attain and determine the relationship between variables such as reading strategies, engagement, and attitude towards school to possess reading motivation.

Reading is one of the most important means to connect with peers and make sense of the world. Especially as society continues to develop, daily activities include reading competence. Consequently, it is necessary to have a reading motivation to make reading comprehension more effective. This study is relevant worldwide because it will be the basis for conducting studies on reading motivation in the Filipino language or even in a foreign language. To the head of the department of education, public or private schools, and teachers, this research is of great help to develop a meaningful plan or program to cultivate students' abilities, particularly in reading motivation. This research is helpful for the students to get to know themselves better, especially in their reading motivation. To other researchers related to this type of study, it may be helpful to be the basis for their future studies.

## **2. MATERIAL AND METHODS**

### **2.1 Research Design**

In this study, a descriptive-causal design was used. When conducting research to determine the root causes of a particular issue, descriptive analysis is used to describe the current state of the situation. This descriptive study was analyzed utilizing quantitative data about the said problems. The quantitative aspect is an appropriate data collection method for the target participants who answered the questions. The data collection process was based on the use of questionnaires. The focus of this study is to develop and use reading motivation models, theories, and hypotheses about the problem. Its nature is shown by using empirical data on the scale interval from the response of the participants. It also used a structural equation model (SEM) as it will gather different types of quantitative data regarding learning strategies, student engagement, attitude towards school, and reading motivation as variables.

A structural equation model is a tool for accessing the sequence of interdependencies between independent and dependent variables in a measurable way. The structural equation model measures and describes the statistical aspect on different levels ([Ullman and Bentler 607](#); [Crossman and Hardesty 196](#)). It is also a comprehensive statistical technique that tests the hypothesis of the relationship between measured and unobserved variables. It is also a methodology used to represent, estimate, and theoretical test relationships between variables. Its purpose is to analyze the correlation pattern or covariance between variables and explain their variance as a possible identified model. This gives more meaningful and valid results, [Collier added \(1-36\)](#),

So, using the structural equation model in this study reinforces the integrity and rigor of this study because the assessment goes through the steps of defining the model, data collection, assessing the model, model evaluation, and possible modification of the model.

This study focuses on adapting data to match the models in students' learning strategies, engagement, attitude towards school, and reading motivation. Therefore, the causal design was used to describe the relationship between the manifest and latent variables of the study.

The structural equation model is a combination of statistical strategies examining the relationship between related independent variables, jointly or separately, and one or more dependent variables examined jointly or separately.

The steps of the study began with developing a questionnaire derived from selected studies that were reviewed or an adapted survey questionnaire. The researcher translated the questionnaire into Filipino, and six validators validated it. Before conducting the study, five validators from the University of Mindanao Ethics Review Committee (UMERC) examined the paper. Suggestions regarding ethical considerations were applied. The processing took more than a month to secure the certificate of permission to conduct the study was received. The researcher prepared a letter approved by the advisor and the Dean of the College of Graduate Studies of the University of Mindanao to request permission to conduct the study sent by electronic mail. Upon receiving a response, the researcher requested permission from the Regional Director of DepEd Region XII, to the principals and Filipino teachers and advisors regarding the process to be done in the study and to disseminate printed copies of the questionnaire, informed consent, and assent form. This study underwent a series of revisions based on the recommendations and suggestions made by the advisor and expert panels. The study also complied with the University of Mindanao Ethics Review Committee for guidance and ethical consideration by issuing a certification of approval as UMERC-2022-287 for the implementation of the study.

After securing the consent, a virtual orientation of the participants was conducted with the help of the Filipino teachers and advisers. The researcher explained the study's objectives, the method of answering the questionnaire using the google form so that the participants would not be confused in expressing their answers, and the contact number and email address of the researcher were given in case there were questions while answering the survey. After the orientation, the researcher gave the informed consent form and assent form in the group chat, and the participant signed with an e-signature as consent for voluntary participation or on the printout that the researcher gave to the teacher and sent in the researcher's email address. The students were given ample time to understand the questions and answer them. If there is confusion in the terminology and context of the statement in the questionnaire, the researcher will guide the students in answering.

Finally, the researcher collected the data. After the data were recorded or tallied, it was submitted to the research statistician. The researcher then interpreted and discussed the results.

For a more extensive and meaningful interpretation and analysis of the data, the researcher used the following statistics: the mean was used to describe the level of learning strategies, engagement, attitude towards school, and the reading motivation of the students. To measure the difference of a frequency distribution, the Standard Deviation is used. Pearson Product Moment Correlation was used to determine the significance of the relationship between the students' learning strategies, engagement, attitude toward school, and reading motivation. Multiple Regression was used to determine the significant predictor in students' reading motivation. Moreover, the Structural Equation Model was used to determine the best and most appropriate model.

The Goodness of Fit Statistics of Alternative Models using Analysis Moment Structure (AMOS) met all of the following criteria. Chi-Square/Degree of Freedom (CMIN/DF)  $0 < \text{value} < 2$ , P Value  $>.05$ , Normative Fit Index (NFI)  $>.95$ , Comparative Fit Index (CFI)  $>.95$ , Goodness of Fit Index (GFI)  $>.95$ , Tucker-Lewis Index  $>.95$ , and Root Mean Square Error of Approximation, (RMSEA)  $<.05$ . P-close  $>.50$ .

## 2.2 Respondents

The data were gathered from 400 participants, which were selected through stratified random sampling. [Frankel, Wallen, and Hyun \(95\)](#) mentioned that stratified random sampling is a process in which some subgroups, or strata, are selected for the sample in the same proportion as the said population. Those who answered the questions were tenth graders enrolled in the school year 2022-2023 from various public schools in Region XII.

The participants were tenth-grade students from five large schools located in Region XII, and they are as follows: School A from the division of Cotabato, School B from the division of Koronadal, School C from the division of Kidapawan, School D from the division of Sultan Kudarat, and School E from the division of General Santos. Elementary, 7th through 9th grade, and senior high school students in private and public schools were excluded from this study.

## 2.3 Research Instrument

In this study, the researcher used downloaded questionnaires from web sources. The questionnaires were modified only to include questions relevant to the study. The first draft was presented to the researcher's advisor for recommendations and suggestions. To ensure the validity of the questionnaires, it was validated by six expert validators. Out of the total score of the validators, the four questionnaires have a mean score of 4.59 which means excellent.

After the validation, the efficiency of the questionnaires was tested using Cronbach Alpha to assess their accuracy. The pilot testing revealed that the three questionnaires on learning strategies, engagement, and reading motivation has a Cronbach Alpha of .958, .921, and .951, which means the best. However, the attitude towards school has a Cronbach Alpha of .869, which means excellent. Therefore, all the questionnaires are reliable and suitable for the study. The questionnaire is divided into four parts; the first part talks about the learning strategies taken from the Descriptive Statistics for All Items of the Questionnaire On Grammar Learning Strategies by [Božinović & Sindik \(64-67\)](#). The second part is on engagement taken from The Student Engagement in Schools Questionnaire (SESQ) and the Teacher Engagement Report Form-New (TERF-N): Examining the Preliminary Evidence by [Hart, Stewart & Jimerson \(73\)](#). The third part is on the attitude towards school taken from [Seker's Developing a questionnaire on attitude towards school \(258-259\)](#). The fourth part is on reading motivation which was taken from the study by [Wigfield, Guthrie & McGough \(4-5\)](#) titled A Questionnaire Measure of Children's Motivations for Reading.

The responses for each item indicator in each variable used the following scale, with corresponding expressions and interpretations: The highest is 4.20-5.00, which means that such variable is always observed among students. Followed by 3.40-3.19, which means the variable is often observed. 2.60-3.39 is moderate, which means the variable is observed once. 1.80-2.59 is low, meaning the variable is rarely observed. While 1.00-1.79 is the lowest, which means the variable is never observed.

The instrument is divided into four parts. The first part is adapted from the questionnaire entitled Descriptive Statistics for All Items of the Questionnaire On Grammar Learning Strategies by [Božinović & Sindik \(64-67\)](#). Learning strategy with indicative memory strategies; metacognitive strategies; cognitive strategies; and social-affective strategies. The second part used the instrument titled The Student Engagement in Schools Questionnaire (SESQ) and the Teacher Engagement Report Form-New (TERF-N): Examining the Preliminary Evidence by [Hart, Stewart & Jimerson \(73\)](#). These indicators formed the student engagements: affective engagement: liking for learning, affective engagement: liking for school, behavioral engagement: effort and persistence, behavioral engagement: extra-

curricular activities, and cognitive engagement. The third part is about the student attitude toward school, which was taken from [Seker's Developing](#) a questionnaire on attitude towards school (258-259). The study was categorized into six indicators: teaching, school image, loneliness at school, testing and feedback-giving activities, reluctance, and belongingness. The fourth part is on reading motivation, divided into eleven categories taken from the study by [Wigfield, Guthrie, and McGough \(4-5\)](#) titled A Questionnaire Measure of Children's Motivations for Reading. The indicators were reading efficacy; reading challenge; reading curiosity; aesthetic enjoyment of reading; the importance of reading; compliance; reading recognition; reading for grades; social reasons for reading; reading competition; and reading work avoidance.

### 3. RESULTS AND DISCUSSION

#### Learning Strategies

Table 1 shows the study's results on the level of students' learning strategies with a total mean score of 3.87 with a high description and a corresponding standard deviation of 0.69. This means that the participants often demonstrate the learning strategies.

Table 1 Level of Students' Learning Strategy

Indicators	SD	Mean	Descriptive Level
Memory strategies	0.71	3.93	High
Metacognitive strategies	0.75	3.85	High
Cognitive strategies	0.80	3.74	High
Social-affective strategies	0.77	3.96	High
Overall	0.69	3.87	High

This result means that the students mostly demonstrate memory, metacognitive, cognitive, and social-affective strategies. The participants learn differently—through what they see, hear, memorize, plot, and experience daily. Students' knowledge and skills are measured by how he uses these different learning strategies. It can be said that strategy plays a major role, especially in the student's language learning. These will serve as steps or instruments to better cultivate the learning process of the learners. Student often uses a word or phrase that means the same as their actions ([Napil & San Jose 156](#)).

Although the study shows that the descriptive level is high in all its indicators, it is still important to appreciate and intensify it. Many memory strategies are considered tools to strengthen memory because the information is sometimes easily remembered and easily forgotten. The study of [Najm and Kareem \(1\)](#) also revealed that any specific memory strategy is beneficial for students to memorize new grammatical items which they first received.

Metacognitive strategies are methods used to help students understand how they learn and; the processes used to think about their thinking. Students may use such a strategy to make it more rewarding. The psychological factors of students, such as perception, motivation, belief, self-confidence, and others, must be considered while implementing the metacognitive strategy to address possible problems and ensure its effective use ([Muhid, Hilaliyah, Budiana and Wajdi 847-862](#)).

Achievers use three cognitive strategies: repetition, resourcing, and note-taking. These strategies are used to learn to read and improve reading skills. The strategy most often used by students is repetition. This helps them to understand the text and motivates them to be more active in class ([Ayuning & Fauziati 20](#)).

Social strategy is a method used to make students actively participate in class activities. It is a communication method to share the knowledge they have. In other words, social strategies help students share their knowledge. The social strategy aims to develop sociolinguistic competence by increasing interaction with other language learners or speakers and their understanding (Choez and Gisselly 21).

### Engagement

Table 2 presents the results of the research on the level of engagement of students with a total mean score of 4.00 with a description of high and a standard deviation of 0.69. The indicator of interest in learning is at a very high level which means it is always observed, while the other four indicators: interest in learning, effort and persistence, extra-curricular activities, and social participation, are at a high level which means the students often demonstrate it.

Table 2 Level of Students' Engagement

Indicators	SD	Mean	Descriptive Level
Affective Engagement: Liking For Learning	0.67	4.01	High
Affective Engagement: Liking For School	0.92	4.33	Very High
Behavioral Engagement: Effort And Persistence	0.73	4.04	High
Behavioral Engagement: Extra-curricular Activities	1.02	3.61	High
Cognitive Engagement	0.83	4.00	High
Overall	0.69	4.00	High

The results of the study only show an indication that students often show that engagement of students in school activities is the key to effective learning. A child's learning becomes more useful, especially if his persistence in learning also increases. With the help of cognitive activities and various extra-curricular activities that students can participate in, they can be more actively engaged in their studies.

Student engagement helps provide meaningful learning experiences to students. The study of Delfino (11) revealed that the three dimensions of student engagement (attitude, emotional and cognitive) positively correlate with the student's academic performance.

In the study, the descriptive level obtained by the indicator interest in learning is high because the student goes to school almost every day to learn. Delfino (11) added that almost all respondents wanted to be entertained in class, talked to, and advised by teachers. The participants preferred to have a lively and dynamic class discussion. More involved students succeed academically (Bond, Buntins, Bedenlier, Zawacki, and Kerres 1-30). Student engagement is a complex construct commonly understood as the effort invested by students in their learning activities.

Students' engagement in various extra-curricular activities is a significant means of developing identity, as well as their sense of belongingness and competence. However, the distinct nature of each individual, such as participation, influences their extra-curricular Winstone (81-96). It is also an essential ingredient in making students interested in doing something.

### Attitude towards School

Table 3 shows the study's results on the attitude of students toward school, with a total mean score of 3.21 with a descriptive level of medium, and a standard deviation of 0.63. This means that the attitude towards school is sometimes observed among students.

Table 3 Level of Students' Attitude Towards School

Indicators	SD	Mean	Descriptive Level
Teaching	0.84	3.99	High
School image	0.72	3.87	High
Loneliness at school	1.20	2.56	Low
Testing and feedback-giving activities	0.83	3.94	High
Reluctance	1.00	2.72	Moderate
Belongingness	1.40	2.18	Low
Overall	0.63	3.21	Moderate

Students rarely exhibit school behavior where any behavior they show at school is normal. Teaching, testing, and feedback-giving activities are essential to help respondents learn in school. Sometimes, a student can feel loneliness and reluctance caused by their experiences. According to [Von Soest, Luhmann, and Gerstorf \(1919\)](#), loneliness strongly impacts people due to the natural need for social interaction.

Loneliness is a significant health issue related to mental and psychological aspects. It is also a major cause of stress, depression, anxiety, and suicide, which exist in terms of psychological and mental issues ([Holmes, O'Connor, Perry, Tracey, Wessely, Arseneault, and Bullmore 547-550](#); [Lim, Holt -Lunstad and Badcock 789-791](#)).

### Reading Motivation

Table 4 shows the results of the study on the reading motivation of students with a total mean score of 3.66 with a high descriptive level and a standard deviation of 0.67. It simply means that reading motivation is mostly observed in students.

Table 4 Level of Students' Reading Motivation

Indicators	SD	Mean	Descriptive Level
Reading efficacy	0.85	3.68	High
Reading challenge	0.84	3.75	High
Reading curiosity	0.83	3.98	High
Aesthetic enjoyment of reading	0.89	3.97	High
Importance of reading	0.97	4.09	High
Compliance	0.84	3.86	High
Reading recognition	0.89	3.71	High
Reading for grades	0.88	3.71	High
Social reasons for reading	0.98	3.26	Moderate
Reading competition	0.97	3.36	Moderate
Reading work avoidance	1.08	2.90	Moderate
Overall	0.67	3.66	High

The study showed that students often show motivation to read. Reading has been found to help students, especially in teaching and learning, but it is undoubtedly complicated to

develop understanding without motivation. It appeared that the participants avoided reading due to a lack of interest. Thus, it is vital to determine what motivational activity supports students' reading comprehension, primarily since almost all participants are motivated to read because of competition.

Students may live in a competitive world. Some people firmly believe in competition. In the results of the study by [Unal & Uyar \(1309\)](#), the experimental group, whose reading practice performed the "I compete by reading" task, was more successful in understanding than the control group. It was also observed that there was a significant difference between the experimental and control groups' mean scores from the Reading Attitude Scale post-test. However, many students spend more time on unnecessary activities instead of reading books to gain knowledge, but they are attracted to focus on irrelevant things and this results in poor academic performance. Therefore, this will cause many students to drop out of high school while others are lonely due to their inability to cope with their studies ([Ojo, 17-22](#)).

### Significant Relationship between Reading Motivation and Learning Strategies of Students

Table 5.1 shows the significant relationship between learning strategy and reading motivation of the students with a total r-value of .663 with a corresponding probability value of .000, which is more readable at the .05 level of significance which was already determined in this study. Therefore, the hypothesis is rejected and conforms to the alternative hypothesis that there is a significant relationship between learning strategy and students' reading motivation. It means that when the learning strategy is high, the students' reading motivation is also high.

Table 5.1 Significant Relationship between Reading Motivation and Learning Strategies of Students

Learning Strategy	Reading Motivation											Overall
	BSP	HSP	KUP	PAS	HNP	PSD	PSB	PSG	RAP	PKP	PIP	
ESP	.478 .000	.557 .000	.655 .000	.564 .000	.621 .000	.611 .000	.545 .000	.566 .000	.348 .000	.318 .000	.045 .365	.641 .000
ESM	.443 .000	.533 .000	.622 .000	.513 .000	.564 .000	.584 .000	.518 .000	.557 .000	.433 .000	.310 .000	.023 .652	.617 .000
ESK	.480 .000	.514 .000	.599 .000	.514 .000	.495 .000	.569 .000	.505 .000	.551 .000	.472 .000	.379 .000	.099 .049	.628 .000
ESA	.384 .000	.467 .000	.589 .000	.502 .000	.536 .000	.545 .000	.471 .000	.489 .000	.331 .000	.257 .000	.007 .893	.551 .000
Overall	.486 .000	.563 .000	.671 .000	.569 .000	.602 .000	.628 .000	.555 .000	.589 .000	.433 .000	.345 .000	.044 .379	.663 .000

**Legend:**

ESP- memory strategies  
 ESM- metacognitive strategies  
 ESK- cognitive strategies  
 ESA- social-affective strategies

BSP- reading efficacy  
 HSP- reading challenge  
 KUP- reading curiosity  
 PAS- aesthetic enjoyment of reading  
 HNP- importance of reading  
 PSD- compliance  
 PSB- reading recognition  
 PSG- reading for grades  
 RAP- social reasons for reading  
 PKP- reading competition

There is a significant relationship between learning strategy and students' reading motivation, with an indication that rejected the hypothesis and which conforms to the alternative hypothesis that there is a significant relationship between reading motivation.

The overall result on the relationship between learning strategy indicators: memory strategy, metacognitive strategy, cognitive strategy, and social-affective strategy has a significant relationship with reading motivation and its indicators: reading efficacy, reading challenge, reading curiosity, aesthetic enjoyment in reading, the importance of reading, compliance, reading recognition, reading for grades, social reasons for reading, reading competition, and reading work avoidance.

This relationship between the learning strategy and reading motivation implies that students cannot perform a task if they lack the motivation to read. It is also proven that the learning strategy significantly affects raising the level of reading motivation.

In the study by [Muhid, Eka, Halaliyah, Budhaina, and Nizarudin \(847-862\)](#) showed that students rarely participate in a discussion due to the lack of conversation used in communication. Close attention should be given to using metacognitive strategies in activities related to increasing reading motivation. They further added that the metacognitive strategy positively affects reading comprehension. In reading, the cognitive strategy is related to the student's target language and global knowledge, in which they can develop their interpretation of the text and perform the given task. This strategy includes making inferences, translating, summarizing, integrating prior knowledge or experiences, and using grammatical rules ([Zhang and Guo 110-114](#)).

### Significant Relationship between Reading Motivation and Student Engagement

Table 5.2 shows the significant relationship between the student engagement and reading motivation of students with a total calculated r-value of .763 with a corresponding p-value of .000, which is more than .05 level of significance outlined in the study. Hence, the hypothesis is rejected and has conformed to the alternative hypothesis with a significant relationship between engagement and the students' reading motivation. This means that when students' engagement is high, students' reading motivation is also high.

*Table 5.2 Significant Relationship between Reading Motivation and Student Engagement*

Students' Engagement	Reading Motivation											
	BSP	HSP	KUP	PAS	HNP	PSD	PSB	PSG	RAP	PKP	PIP	Overall
PAP	.437 .000	.475 <sup>**</sup> .000	.594 <sup>**</sup> .000	.540 <sup>**</sup> .000	.571 <sup>**</sup> .000	.594 <sup>**</sup> .000	.458 <sup>**</sup> .000	.479 <sup>**</sup> .000	.341 <sup>*</sup> .000	.281 <sup>*</sup> .000	.087 .082	.588 <sup>**</sup> .000
PGE	.389 <sup>**</sup> .000	.419 <sup>**</sup> .000	.621 <sup>**</sup> .000	.558 <sup>**</sup> .000	.592 <sup>**</sup> .000	.571 <sup>**</sup> .000	.433 <sup>**</sup> .000	.418 <sup>**</sup> .000	.267 <sup>*</sup> .000	.184 <sup>*</sup> .000	-.037 .462	.530 <sup>**</sup> .000
PPP	.533 <sup>**</sup> .000	.524 <sup>**</sup> .000	.682 <sup>**</sup> .000	.611 <sup>**</sup> .000	.649 <sup>**</sup> .000	.659 <sup>**</sup> .000	.533 <sup>**</sup> .000	.530 <sup>**</sup> .000	.374 <sup>*</sup> .000	.358 <sup>*</sup> .000	.106 .035	.673 <sup>**</sup> .000
PSP	.429 <sup>**</sup> .000	.443 <sup>**</sup> .000	.451 <sup>*</sup> .000	.394 <sup>*</sup> .000	.330 <sup>*</sup> .000	.461 <sup>**</sup> .000	.479 <sup>**</sup> .000	.515 <sup>**</sup> .000	.577 <sup>**</sup> .000	.415 <sup>**</sup> .000	.196 .000	.575 <sup>**</sup> .000
ANP	.509 <sup>**</sup> .000	.602 <sup>**</sup> .000	.738 <sup>**</sup> .000	.648 <sup>**</sup> .000	.631 <sup>**</sup> .000	.689 <sup>**</sup> .000	.543 <sup>**</sup> .000	.555 <sup>**</sup> .000	.469 <sup>**</sup> .000	.363 <sup>**</sup> .000	.080 .111	.705 <sup>**</sup> .000
Overall	.549 <sup>**</sup> .000	.589 <sup>**</sup> .000	.734 <sup>**</sup> .000	.654 <sup>**</sup> .000	.654 <sup>**</sup> .000	.708 <sup>**</sup> .000	.588 <sup>**</sup> .000	.601 <sup>**</sup> .000	.499 <sup>**</sup> .000	.388 <sup>**</sup> .000	.106 .034	.736 <sup>**</sup> .000

**Legend:**

PAP- affective engagement: liking for learning  
PGE- affective engagement: liking for school  
PPP- behavioral engagement: effort and persistence  
PSP- behavioral engagement: extracurricular activities  
ANP- cognitive engagement

BSP- reading efficacy  
HSP- reading challenge  
KUP- reading curiosity  
PAS- aesthetic enjoyment of reading  
HNP- importance of reading  
PSD- compliance  
PSB- reading recognition  
PSG- reading for grades  
RAP- social reasons for reading  
PKP- reading competition

In the overall results of the study, all indicators of engagement which shows liking for learning, liking for school, effort and persistence, extra-curricular activities, and cognitive engagement have a significant relationship with the indicators reading motivation which are reading efficacy, reading challenge, reading curiosity, aesthetic enjoyment in reading, importance of reading, compliance, reading recognition, reading for grades, social reasons for reading, reading competition, and reading work avoidance.

Many studies prove that motivation is related to reading competence and improves cognitive ability (Parsons, Maloy, Parsons, Peters, and Burrowbridge 232-245). Student engagement is empirical to maintain reading motivation as it helps in reading activities and competence (Hebbecker, Forster, and Souvignier 419; Miyamoto, Pfost, and Artelt 445).

### Significant Relationship between Reading Motivation and Student Attitude towards School

It can be inferred from table 5.3 the significant relationship between the attitude towards school and reading motivation with a total calculated r-value of .607 with a corresponding p-value of .000, which is well below the .05 level of significance set in this study. Hence, the hypothesis is rejected and has conformed to the alternative hypothesis with a significant relationship between the attitude towards school and students' reading motivation. In other words, when the attitude towards school is high, the students' reading motivation is also high.

Table 5.3 Significant Relationship between Reading Motivation and Student Attitude towards School

Attitude Towards School	Reading Motivation											
	BSP	HSP	KUP	PAS	HNP	PSD	PSB	PSG	RAP	PKP	PIP	Overall
PPA	.526 <sup>*</sup> .000	.541 <sup>*</sup> .000	.633 <sup>**</sup> .000	.564 <sup>*</sup> .000	.553 <sup>*</sup> .000	.602 <sup>*</sup> .000	.553 <sup>*</sup> .000	.572 <sup>*</sup> .000	.480 <sup>**</sup> .000	.356 <sup>*</sup> .000	.116 .021	.667 <sup>**</sup> .000
PAT	.497 <sup>*</sup> .000	.460 <sup>*</sup> .000	.617 <sup>**</sup> .000	.507 <sup>*</sup> .000	.517 <sup>*</sup> .000	.570 <sup>*</sup> .000	.426 <sup>*</sup> .000	.456 <sup>*</sup> .000	.388 <sup>**</sup> .000	.302 <sup>*</sup> .000	.125 .012	.590 <sup>*</sup> .000
KSP	.120 .017	.019 .710	-.074 .139	.026 .606	- .007	-.002 .975	.103 .039	.101 .043	.207 .000	.334 .000	.416 .000	.144 <sup>*</sup> .004
PPG	.453 <sup>*</sup> .000	.534 <sup>*</sup> .000	.654 <sup>**</sup> .000	.558 <sup>*</sup> .000	.557 <sup>*</sup> .000	.617 <sup>*</sup> .000	.468 <sup>*</sup> .000	.546 <sup>*</sup> .000	.432 <sup>**</sup> .000	.304 <sup>*</sup> .000	.071 .157	.628 <sup>*</sup> .000
ISP	.313 <sup>*</sup> .000	.173 .000	.042 .398	.097 .052	-.018 .720	.193 .000	.248 <sup>*</sup> .000	.289 <sup>*</sup> .000	.429 <sup>*</sup> .000	.525 <sup>*</sup> .000	.608 .000	.372 <sup>*</sup> .000
PAG	.185 .000	.012 .815	-.160 <sup>**</sup> .001	-.116 <sup>*</sup> .021	- .000	-.037 .456	.090 .072	.108 .030	.305 <sup>*</sup> .000	.386 <sup>*</sup> .000	.566 .000	.161 <sup>*</sup> .001
Overall	.505 <sup>*</sup> .000	.382 <sup>*</sup> .000	.328 <sup>**</sup> .000	.318 <sup>*</sup> .000	.228 <sup>*</sup> .000	.416 <sup>*</sup> .000	.441 <sup>*</sup> .000	.486 <sup>*</sup> .000	.574 <sup>**</sup> .000	.601 <sup>*</sup> .000	.580 .000	.607 <sup>**</sup> .000

Legend:

PPA- teaching

PAT- school image

KSP- loneliness at school

PPG- testing and feedback-giving activities

ISP- reluctance

PAG- belongingness

BSP- reading efficacy

HSP- reading challenge

KUP- reading curiosity

PAS- aesthetic enjoyment of reading

HNP- importance of reading

PSD- compliance

PSB- reading recognition

PSG- reading for grades

RAP- social reasons for reading

This result deviates from the research hypothesis. In the analysis, only the indicators of teaching, school image, testing, feedback-giving activities, and reluctance had a significant relationship with the indicators of reading motivation: reading efficacy, reading curiosity, aesthetic enjoyment in reading, reading recognition, reading for grades, social reasons for reading, reading competition, and reading work avoidance.

Reading motivation is one of the key factors in cultivating students' academic performance. The abilities and behaviors of the students have social relevance as well as the individual value that will transform the child into a skilled reader: possess all intrinsic and extrinsic motivations. Although the participants' reading motivation indicators were positively received, they also showed hesitation to read confidently in front of their classmates and teachers (Alvarado & Adriatico 103-104). In addition, students' perspectives and behavior show many factors affecting their attitude toward school. Factors such as behavior learned from parents, acceptance, socialization, companionship, liking teachers, friendships, and teaching methods can be related to the attitude of students at school (Hodges, Cordier, Joosten, Bourke, and Speyer 13).

### **Significant Influence of Reading Motivation, Learning Strategies, Engagement, and Student Attitude towards School**

Table 6 shows the significant influence of learning strategy, engagement, and attitude towards school towards reading motivation with an F-value of 267.849, R-value of .818, and p-value of .000, more than below the .05 level of significance set in this research.

The research revealed that the three exogenous variables, such as learning strategies, engagement, and school behavior, have standardized and unstandardized coefficients of .239, .383, and .372 and have a constant value of .007. Through stepwise Regression, it appeared that not all indicators influence students' reading motivation. Because the research showed that the R<sup>2</sup> of .670 represents a 67% influence on reading motivation, the remaining 33% can be related to other factors not involved in the study being conducted. One of the objectives of this study is to examine the Regression that determined the influence of learning strategies, engagement, attitude toward school, and students reading motivation. It only indicates that the three previously mentioned exogenous variables influence students' reading motivation.

Table 6. Significant Influence of Reading Motivation, Learning Strategies, Engagement, and Student Attitude towards School

Reading Motivation of the Students					
Exogenous Variables		<i>B</i>	$\beta$	<i>T</i>	<i>Sig.</i>
Constant		.007		.055	.956
Learning strategies		.239	.248	5.643	.000
Students' engagement		.383	.396	8.592	.000
Attitude towards school		.372	.353	10.997	.000
R	.818				
R <sup>2</sup>	.670				
$\Delta R$	.667				
F	267.849				
P	.000				

The teacher and the school need to collaborate strongly to provide students with a way to participate in the university. Student engagement helps to provide meaningful learning experiences to students. The study of Delfino (15) revealed that the three dimensions of student engagement (behavioral, emotional, and cognitive) positively correlate with students' academic performance. In order to sustain effective change in students' behavior, the learning strategy must first be anchored in the learning context (Nilson, 77–87). Students often hesitate to switch to effective strategies because they harbor much uncertainty. Therefore, the result of this research is a fresh conceptual discovery that learning strategy, engagement, and attitude toward school influence the students' reading motivation.

### Best Fit Model for Student Reading Motivation

This part explores the relationships between learning strategies, engagement, and attitude toward school in students' reading motivation.

Five alternative models were developed to obtain the best-fit reading motivation model. Each model creates a structure that can be divided into two sub-models: the measurement model and the structure model. The measurement model indicates the measure of loads of each factor on their latent constructions, while the structural model describes the relationships between the latent variables. Moreover, the fit assessment was used as a baseline for accepting and rejecting the developed model. As a rule, the researcher established the causal relationship between the latent variable towards different latent variables.

Additionally, it creates a relationship between endogenous and exogenous variables. If a structural model shows a good fit, it means that the empirical relationships between the variables in the proposed models are similar.

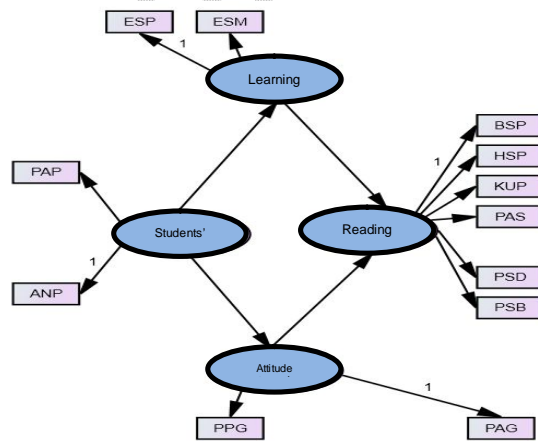


Fig. 2. Best Fit Model on Reading Motivation

Legend:

- |  |  |                                    |
|--|--|------------------------------------|
| ESP-memory strategies                          | PAG-teaching                               | KUP-reading curiosity              |
| ESM-metacognitive strategies                   | PPG-testing and feedback-giving activities | PAS-aesthetic enjoyment of reading |
| ANP- affective engagement: liking for learning | BSP-reading efficacy                       | PSD-compliance                     |
| PAP-cognitive engagement                       | HSP-reading challenge                      | PSB-reading recognition            |
|  |  | PSG-reading for grades             |

There were five hypothesized models developed and tested in this study. The screening of variables was carefully followed to ensure the normality of the data in the developed models shown in this research. These conceptualized research models show that the direct effects are represented by arrows from a predictor variable on the right side to the left side, where the dependent variable does not pass through another variable.

Structural model 1 in the developed models shows the direct relationship of exogenous: learning strategy, engagement, and attitude towards school and its causal relationship with the endogenous variable on students' reading motivation. As a result of the study, it was found that there is a latent variable that needs to be removed in order to comply with the standard. It also shows that all the indices in model 1 did not reach an acceptable number. Since this is a weak and inappropriate model, an improved hypothesized model is suggested.

Structural model 2 shows an apparent causal relationship between the exogenous variables: learning strategy, engagement, and attitude towards school and the endogenous variable in students' reading motivation. It can be inferred that this model is weak because all the indices did not reach the acceptable number, which can be seen in the appendix of the developed models. Therefore, the development of an improved hypothesized model is recommended.

Structural Model 3 of the developed models shows the direct causal relationship of the exogenous variable: reading strategy, engagement, and attitude towards school and its causal relationship with the endogenous variable on the students' reading motivation. It can be inferred from Table 3 in the appendix that the developed models that show a direct effect of the predictors on the independent variable reading motivation. However, all the indices did not reach the standard. Hence, the hypothesized model 3 is weak. As a consequence, the creation or development of an improved hypothesized model is suggested.

Structural Model 4 in Table 4 in the appendix of the developed models' section shows the direct causal relationship of the exogenous variables: learning strategy, engagement, and attitude towards school and its causal relationship with the endogenous variable motivation in students' reading. The effect of the predictor of the independent variable in students' reading motivation can be concluded. Nevertheless, all the indices did not reach the set standard. It means that the hypothesized model 4 is weak, and a development of an improved hypothesized model is recommended.

In scrutinizing Model 5 as shown using the goodness of fit indices: Chi-Square divided by degrees of freedom CMIN/DF is 1.321; The Goodness of Fit Index (GFI) is .980; The Comparative Fit Index (CFI) is .997; The Normed Fit Index (NFI) was .987; The Tucker-Lewis Index (TLI) is .994; The Root Means Square of Error Approximation (RMSEA) is .028; and the P of Close Fit (Pclose) is .970. Based on these data, the result of the goodness of fit of model 5 is highly acceptable because all the indices met the set criteria against the obtained value of the fit of the model that can be seen in table 9. All the indices met the requirements of the goodness of fit measures. Thus, this indicates that the generated model 5 is excellent and appropriate.

Based on the analysis of the relationship between learning strategy, engagement, and attitude towards school in reading motivation of students, which were comprised of five alternative models. Each model has a framework that creates two sub-models—the measurement and structural models. The measurement model represents the measured loads of each factor in their latent constructs, while the structural model defines the relationship between the latent variables. Moreover, selecting the most appropriate model was used as a baseline to accept and reject the model based on the result.

The hypothesized model 5 was chosen as the best-fit model according to the rule of association, which showed the importance of two indicators from the four learning strategy variables and two of the five indicators in the engagement variable of the students. While in

the attitude toward school, out of the six indicators, only two are related to students' reading motivation.

The developed model can be based on the Achievement Goal Theory of Spinath and Steinmayr. This theory is why a student works hard to participate and become an expert in a task. In mastering a task, if a student is eager to cultivate his ability and diligently works his way to understand a subject using teaching tools (Spinath and Steinmayr, 1135). Motivation theory helps students desire to learn, and students who are interested want to succeed (Guthrie, Wigfield, Metsala, and Cox, 231). Reading motivation correlated with how long a child reads. A student who reads more is likely to become a good reader, perform better on tests, and develop as a reader (Wang & Guthrie, 162).

Thus, the study's outcome refuted and accepted the alternative hypothesis that all exogenous variables are significant in learning strategies, engagement, and attitude toward school.

#### **4. CONCLUSION**

The overall results showed a high level of student learning strategies, engagement, and reading motivation. It connotes that it is usually observed only when they study and the level achieved is insufficient. Thus, intervention is needed to reach the highest level. As for the research learning strategy, it is suggested that language teachers, particularly in Filipino, should provide exciting activities with specific objectives that will assess student learning. In student engagement, it is suggested that students participate in various school activities such as communication, group activities, and problem-solving activities in the academic and extra-curricular fields. Teachers must also value the balanced provision of student academic and extra-curricular activities. The school shall organize seminars, School Learning Action Cells, workshops, and conferences for teachers on how to improve student engagement in school activities and offer different tips every week that will shape the child's abilities, such as Zumba, sports, and journalism. In terms of reading motivation, it is suggested that students maintain an interest in reading short stories, novels, poems, essays, and many others to expand reading comprehension and gain valuable lessons in life. The teachers will provide reading activities in the class that will arouse the interest of the students such as speech choir, poetry performance, declamation, interpretative reading, and so on. To the schools, support and provide adequate funds for reading activities such as conducting PHIL-IRI and summer reading camps. The Department of Education allocates funds to purchase reading materials that will be given individually to students so that even when they are at home, they can read whenever they want.

The study also revealed that the variable of the attitude of students towards school shows a moderate level of reluctance and a low level of loneliness at school and belongingness of the participants, which means that it is rarely observed in their studies, but the level of the indicator of loneliness is low. Their attitude towards school is only moderate, particularly in the indicator of reluctance and loneliness due to their life experiences. Hence, it is suggested that if someone has problems with themselves, they can ask for help or counsel from their parents, teachers, and friends. The teachers will stand as listeners and counselors when an opportunity arises that a student will approach and share his sentiments, and shall prepare specific activities which spark active participation in students' learning process, such as individual and group activities.

There is a significant relationship between the three variables: learning strategies, engagement, and attitude toward school in reading motivation. All variables have a significant correlation. So, the null hypothesis was unaccepted. It is suggested to pay

attention to students' abilities, specifically in the variables mentioned above, because it helps increase reading motivation. Through stepwise Regression, it appeared that not all indicators influence the reading motivation of the learners. This means that factors that are not mentioned or involved in this study may influence reading motivation, and further extensive research is still needed. So, it is suggested that another study be conducted to discover other factors that influence student reading motivation that was not mentioned in this study.

Of the five models developed, model 5 has indices that were consistent and indicated the best fit to the data. The result of the goodness of fit of model 5 is highly acceptable because all the indices met the set criteria against the obtained model fit value. It was, therefore, identified as the best-fit model. It is suggested that the results of the study be communicated to the public schools in the region involved in the study to create interventions that better cultivate learning strategies, engagement, attitude towards school, and reading motivation, such as the development of a meaningful plan or program to cultivate the ability of students, especially in their current reading motivation.

Therefore, the study is anchored in Achievement Goal Theory by Spinath and Steinmayr. This motivation theory helps students develop a desire to learn, and students who are full of interest will succeed. It only proves that said theory has a strong relationship with achieving and maintaining reading motivation. This has been proven in the results of the study that a high-level ability in learning strategy, engagement, attitude towards school, and reading motivation contribute to the motivation of students in reading.

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