

# The Influence of Self-Efficacy and Motivation to Learn to the Self-Regulation of Senior High School Students

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## ABSTRACT

This study explored the influence of self-efficacy and motivation to learn on the self-regulation of senior high school students at Lorenzo S. Sarmiento Sr. National High School. The main objective was to determine the levels of self-efficacy, motivation to learn, and self-regulation, examining the significant relationships between self-efficacy and self-regulation, and motivation to learn and self-regulation. Additionally, the study aimed to identify which domains of self-efficacy and motivation to learn might significantly influence self-regulation. A quantitative-correlational design was employed, involving 274 respondents from senior high school students in Lorenzo S. Sarmiento Sr. National High School. The statistical tools utilized included mean, Pearson *r*, and multiple regression analysis. The results indicated a high level of self-efficacy among senior high school students in terms of effort, talent, and context. Similarly, there was a high level of motivation to learn in terms of goal orientation, self-determination, and social engagement. Furthermore, the study revealed a high level of self-regulation in evaluating information, triggering change, and implementing plans. The findings also established a high correlation and significant relationship between self-efficacy and self-regulation, as well as motivation to learn and self-regulation, leading to the rejection of the null hypothesis. All domains of self-efficacy and motivation to learn significantly influenced self-regulation as perceived by senior high school students. Consequently, teachers might consider adapting strategies that enhance students' self-efficacy and develop motivation to learn to nurture students' ability to self-regulate. Implementing such methods aligned with the study findings would help students foster a positive atmosphere and enable active engagement in self-regulated learning for academic excellence.

**Keywords:** GAS, Self-Efficacy, Motivation to Learn, Self-regulation, Philippines

## INTRODUCTION

In Slovenia, there was a growing concern about the need to evaluate students' self-regulation skills (Komidar et al., 2022). Additionally, according to Estehmami (2021), in Iran, a significant issue lay in students' difficulties with adapting and self-regulating their learning, especially in the evolving landscape of online and remote education. Furthermore, Caughy et al. (2022) stated that there was a notable issue with self-regulation among students in Spain, as they lacked strategies to cope with the increasing demands of digital learning platforms and distractions in the modern classroom environment. Moreover, Lim and Balidon (2021) found out that there was an issue with the inconsistent implementation of self-regulation in the education system, hindering the development of 21st-century competencies among Singaporean students.

In Quezon City and Metro Manila, Philippines, self-efficacy played a pivotal role in determining students' confidence levels, bridging the gap between public and private school experiences and influencing their educational trajectories (Villas, 2019). As affirmed by Blackmore et al. (2021), self-efficacy beliefs and self-regulation were evident through cognitive abilities such as setting goals and self-monitoring, highlighting their interconnection. Likewise, self-efficacy was closely related to self-regulation as it involved individuals' beliefs in their ability to control their behavior, linking their confidence in achieving goals to their capacity for internal behavior management (Kelland, 2022).

In addition, students in Zambales required motivation as it stood as a crucial tool for personal growth and daily learning, without which, comprehension of content became challenging (Rogayan & Bautista, 2019).

Moreover, as Meece (2022) stated, motivation was essential as it drove individuals to effectively regulate their actions and behaviors to achieve their goals. Besides, motivation and self-regulation were interconnected as motivation provided the drive and purpose for self-regulated actions, while self-regulation helped individuals pursue and achieve their motivational goals effectively (Ahmed, 2018).

In Region XI, particularly in Davao del Norte, there was a growing problem about the self-regulation of learners, particularly in how their online learning behaviors impacted their learning outcomes (Duterte & Importante, 2022). Whereas the challenge of self-regulation in Davao del Sur emerged when students' ability to control their motivation and actions was predominantly shaped by external incentives and disincentives, rather than their internal drive, potentially affecting their learning outcomes and future mental health (Abun, 2021). In the municipality of Mawab, particularly in Lorenzo S. Sarmiento Sr. National High School, the researchers observed a significant issue with students' self-regulation skills. Many students struggled with self-regulation, leading to procrastination and unfinished assignments that negatively impacted their academic performance and overall welfare. Their struggle with self-regulation posed a significant obstacle to their personal well-being. Also, they often lacked awareness of their learning needs, hindering their adaptability to different study approaches. The researchers were interested in conducting this study to figure out the influence of self-efficacy and motivation to learn on the self-regulation of senior high school students.

The researchers did not find any prior studies that investigated the relationship between self-efficacy, motivation to learn, and their influence on self-regulation. Therefore, the researchers were keen to explore whether self-efficacy and motivation to learn had an influence on students' self-regulation. This exploration aimed to raise awareness among the study's intended audience and potentially led to the development of an action plan for understanding the effects of self-efficacy and motivation on student self-regulation. Consequently, this study was undertaken to address this research gap.

## Research Objectives

This study was conducted in order to determine if the self-efficacy and motivation to learn could influence the self-regulation of senior high school students. Specifically, this study sought to answer the following:

1. To describe the level of self-efficacy among the senior high school students in terms of:
  - 1.1 effort;
  - 1.2 talent; and
  - 1.3 context.
2. To describe the level of motivation to learn among the senior high school students in terms of:
  - 2.1 goal orientation;
  - 2.2 self-determination; and
  - 2.3 social engagement.
3. To describe the level of self-regulation among senior high school students in terms of:
  - 3.1 evaluating information;
  - 3.2 triggering change; and
  - 3.3 implementing a plan.
4. To find out the significant relationship between the influence of self-efficacy and self-regulation of senior high school students.
5. To find out the significant relationship between the influence of motivation to learn and self-regulation of senior high school students.
6. To determine which domain of self-efficacy significantly influences the self-regulation of senior high school students.
7. To determine which domain of motivation to learn significantly influences the self-regulation of senior high school students.

## METHODOLOGY

This study used a quantitative correlational design, meaning a research design that investigated the relationship between variables without the researchers controlling or manipulating any of them. Correlational research was ideal for gathering data quickly from natural settings, aiding in generalizing the findings to real-life situations in an externally valid manner. Many different methods were usable in correlational research. In the social and behavioral sciences, the most common data collection methods for this type of research included surveys, observations, and secondary data (Bhandari, 2021).

## Population and Sample

Simple random sampling was used in the selection of respondents. The total population for this study was 945, with the subjects being the 274 senior high school students of Lorenzo S. Sarmiento Sr. National High School in the year 2023-2024. They were ideal respondents for this research as they were entering a stage where they would be actively making more plans and decisions about their learning and responsibilities, providing valuable insights into self-regulation, and learning for the study.

## Statistical Tool

The following statistical tools were utilized for the data analysis and interpretation.

**Mean.** This statistical tool was used to determine the level of self-efficacy, motivation to learn and self-regulation among senior high school students.

**Pearson (r).** This statistical tool was employed to determine the significance of the relationship between self-efficacy and self-regulation, and motivation to learn and self-regulation among senior high school students.

**Multiple Regression Analysis.** This statistical tool was used to determine the influence of self-efficacy and motivation to learn on self-regulation among senior high school students.

## RESULTS

### Level of Self-Efficacy

In Table 1, the mean scores for the indicators of self-efficacy among Senior High School Students in Lorenzo S. Sarmiento Sr. National High School, Davao de Oro, were presented, with an overall mean of 4.01, described as high with a standard deviation of 0.65. The high level was attributed to the respondents' high ratings in all indicators. This suggested that the respondent's responses to the level of self-efficacy were often manifested in terms of effort, talent, and context.

Moreover, the cited overall mean score was the result obtained from the following computed mean scores from highest to lowest: 4.15 or high for effort with standard deviation of 0.68; 3.96 or high for talent with a standard deviation of 0.63; and 3.95 or high for context with standard deviation of 0.66.

**Table 1. Level of Self-Efficacy**

Indicator	Mean	SD	Descriptive Level
Effort	4.15	0.68	High
Talent	3.96	0.63	High
Context	3.95	0.66	High
Overall	4.01	0.65	High

### Level of Motivation to Learn

In Table 2, the mean scores for the indicators of motivation to learn among Senior High School Students in Lorenzo S. Sarmiento Sr. National High School were presented, with an overall mean of 4.01, described as high with a standard deviation of 0.63. The high level was attributed to the respondents' high ratings in all indicators. This suggested that the respondent's responses to the level of motivation to learn were often manifested in terms of goal orientation, self-determination, and social engagement.

Furthermore, the cited overall mean score was the result obtained from the following computed, mean scores from highest to lowest: 4.09 or high for goal orientation with standard deviation of 0.59; 4.06 or high for self-determination with standard deviation of 0.63; and 3.91 or high for social engagement with standard deviation of 0.69.

**Table 2. Level of Motivation to Learn**

Indicator	Mean	SD	Descriptive Level
Goal Orientation	4.09	0.59	High
Self Determination	4.06	0.63	High
Social Engagement	3.91	0.69	High
Overall	4.01	0.63	High
Indicator	Mean	SD	Descriptive Level

### Level of Self-Regulation

In Table 3, the mean scores for the indicators of self-regulation among Senior High School Students in Lorenzo S. Sarmiento Sr. National High School were presented, with an overall mean of 4.01, described as high with a standard deviation of 0.61. The high level was attributed to the respondents' high ratings in all indicators. This suggested that the respondent's responses to the level of self-regulation were often manifested in terms of evaluating information, triggering change, and implementing a plan.

Furthermore, the cited overall mean score was the result obtained from the following computed mean scores from highest to lowest: 4.06 or high for evaluating information with standard deviation of 0.61; 4.04 or high for triggering change with standard deviation of 0.65; and 3.95 or high for implementing a plan with standard deviation of 0.59.

**Table 3. Level of Self-Regulation**

Indicator	Mean	SD	Descriptive Level
Evaluating Information	4.06	0.61	High
Triggering Change	4.04	0.65	High
Implementing a Plan	3.95	0.59	High
Overall	4.01	0.61	High

### Significance on the Relationship between Self-Efficacy and Self-Regulation

The results revealed that self-efficacy and self-regulation had a significant relationship. This result was due to a p-value of  $<.001$ , which was less than the 0.05 p-value. Hence, this led to the decision that the null hypothesis, which stated that there is no significant relationship between self-efficacy and self-regulation among Senior High School Students in Lorenzo S. Sarmiento Sr. National High School, was rejected. Furthermore, Pearson's R value, which was 0.741, further meant that there was a high correlation between self-efficacy and self-regulation.

### Significance on the Relationship between Motivation to Learn and Self-Regulation

The results revealed that motivation to learn and self-regulation had a significant relationship. This result was due to a p-value of  $<.001$ , which was less than the 0.05 p-value. Hence, this led to the decision that the null hypothesis, which stated that there is no significant relationship between motivation to learn and self-regulation among Senior High School Students in Lorenzo S. Sarmiento Sr. National High School was rejected. Furthermore, Pearson's R value, which was 0.758, further meant that there was a high correlation between motivation to learn and self-regulation.

### Multiple Regression Analysis of the Influence of Self-Efficacy on Self-Regulation

Employing Multiple Regression Analysis, the data revealed that the influence of self-efficacy and self-regulation had an f-value of 109.778 and a corresponding significance p-value of  $<.001$ , indicating significance.

Certainly, this meant that the usage of self-efficacy influenced the self-regulation of senior high school students, as the probability was less than 0.05. The R squared of 0.550 indicated that 55% of the self-regulation of senior high school students in Lorenzo S. Sarmiento Sr. National High School was influenced by the usage of self-efficacy, while the remaining 45% were not covered by the study and were influenced by other factors.

### Multiple Regression Analysis of the Influence of Motivation to Learn on Self-Regulation

Through Multiple Regression Analysis, the results indicated that the influence of motivation to learn and self-regulation yielded an f-value of 127.554 with a corresponding significance p-value of  $<.001$ , which was significant.

Consistently, this meant that the usage of motivation to learn influenced the self-regulation of senior high school students, as the probability was less than 0.05. The R squared of 0.586 suggested that 58.6% of the self-regulation of senior high school students in Lorenzo S. Sarmiento Sr. National High School was

influenced by the usage of motivation to learn, while the remaining 41.4% were not covered by the study and were influenced by other factors.

## DISCUSSIONS

### Level of Self-Efficacy

The respondents' level of self-efficacy of senior high school students was high. This meant that the self-efficacy among Senior High School Students in Lorenzo S. Sarmiento Sr. National High School was often manifested. This further meant that the senior high school students in Lorenzo S. Sarmiento Sr. National High School manifested a positive self-efficacy in which the senior high school students could freely express their thoughts about effort, which referred to as the deliberate application of energy and determination to complete a task; talent wherein senior high school students inherited skills and abilities that individuals possessed; and context which pertained to the surrounding circumstances and environmental factors that influenced or shaped a situation or outcome (Huntley, 2020).

Moreover, this result was in relation to the proposition of Hayat (2020) which stated that self-efficacy tied to students' beliefs in their ability to achieve academic success and complete tasks contributed to enhanced performance, commitment, and perseverance. Furthermore, Freire et al. (2020) asserted that self-efficacy was a powerful determinant of senior high school students' behavior, significantly influencing involvement, effort, persistence, and achievement. This conformed to the statement of Pumprow and Brahm (2020) which asserted that this inherent self-confidence played a significant role in various aspects of academic endeavors, including online education.

### Level of Motivation to Learn

The respondents' level of motivation to learn among senior high school students was high. This meant that the motivation to learn among Senior High School Students in Lorenzo S. Sarmiento Sr. National High School was often manifested. This further meant that the senior high school students in Lorenzo S. Sarmiento Sr. National High School manifested a positive motivation to learn in which they could freely express their thoughts about goal orientation, which pertains to an individual's approach to achieving specific objectives, reflecting their motivation and attitudes towards goals; self-determination, wherein senior high school students involve making autonomous choices and decisions driven by intrinsic motivation, values, and interest; while social engagement encompasses active participation in social interactions and collaborative activities, contributing to interpersonal relationships and a sense of community (Fowler, 2018).

Additionally, this outcome corresponded to Nap's (2018) proposal that motivation to learn was driven by intrinsic reasons, the perception of learning's value, and the balance of challenge and reward, rather than by external rewards or punishment alone. Furthermore, motivation to learn was influenced by factors such as teacher quality, classroom management, and teaching methods, while parental communication, students' characteristics, and study fields had a lesser impact (Yilmaz et al., 2018). This aligned with Ditta et al.'s (2020) assertion that exposure to new information and learning experiences could boost motivation to learn, sparking curiosity and interest in various topics.

### Level of Self-Regulation

The respondents' level of self-regulation among senior high school students was high. This meant that diverse forms of self-regulation were often manifested among senior high school students in Lorenzo S. Sarmiento Sr. National High School, suggesting variations in how they managed and controlled their learning in terms of evaluating information, which pertained to the process of carefully assessing and analyzing data, facts, or circumstances to form a well-informed understanding of a situation; triggering change that involved recognizing the need for modifications or adjustments in response to this evaluation, and implementing plan which referred to the practical execution of a structured strategy or course of action to achieve specific goals or address identified issues (Oz & Sen, 2018).

This also indicated that students perceived themselves as capable of regulating their learning behaviors over an extended period. This result was symmetrical with the work of Erdogan (2018), who argued that students' varied self-regulation strategies contributed to their academic success, emphasizing the significance of individualized approaches in fostering effective learning environments. This study was cognate with the conjecture to Elhusseini (2018) emphasizing that self-regulation involved the careful modulation of one's thoughts, emotions, and behaviors, all in pursuit of long-term goals.

### **Significance on the Relationship between Self-Efficacy and Self-Regulation**

The conducted study revealed a significant relationship between self-efficacy and self-regulation among Senior High School Students in Lorenzo S. Sarmiento Sr. National High School. This implied that self-efficacy correlated with self-regulation among senior high school students, as observed in the data. This confirmed the main anchored theory of the study, the Social Cognitive Theory of Bandura (1986) which claimed that self-efficacy had a positive and significant relationship with self-regulation. This agitated the other gleaned proposition in the study, the proposition of Moore (2016) who expressed that self-efficacy encompassed self-regulation as it involved individuals' beliefs in their ability to control their behavior, linking their confidence in achieving goals to their capacity for internal behavior management. These attributes of self-efficacy could have influenced self-regulation among senior high school students.

Furthermore, the relationship between overall self-efficacy and self-regulation was found to be significant among senior high school students in Lorenzo S. Sarmiento Sr. National High School. This implied that self-regulation depended on self-efficacy among senior high school students. These findings affirmed the notion of Blackmore et al. (2021) which stated that self-efficacy and self-regulation are interconnected through cognitive skills like goal setting and self-monitoring. This also conformed with the claim of Toharudin et al. (2019) that higher self-efficacy promotes better self-control.

### **Significance on the Relationship between Motivation to Learn and Self-Regulation**

The conducted study revealed a significant relationship between motivation to learn and self-regulation among Senior High School Students in Lorenzo S. Sarmiento Sr. National High School. This implied that motivation to learn correlated with self-regulation among senior high school students, as observed in the data. This confirmed the main anchored theory of the study, the Social Cognitive Theory of Bandura (1986), which claimed that motivation to learn had a positive and significant relationship with self-regulation. This agitated the other gleaned proposition in the study, the proposition of Baars et al. (2017) who expressed that motivation to learn encompassed self-regulation, as motivated individuals were more likely to effectively control and direct their learning processes. These attributes of motivation to learn could have influenced self-regulation among senior high school students.

Moreover, a significant correlation was found between the overall motivation to learn and self-regulation among senior high school students in Lorenzo S. Sarmiento Sr. National High School. This suggests that the self-regulation of senior high school students relied on motivation to learn. The results corroborated Meece (2022) assertion that motivation to learn is essential as it drives effective self-regulation for goal achievement. Additionally, this aligned with Ahmed's (2018) argument that motivation and self-regulation are interconnected, as motivation provides the drive and purpose for self-regulated actions, while self-regulation helps individuals pursue and achieve their motivational goals effectively.

### **Multiple Regression Analysis of the Influence of Self-Efficacy on Self-Regulation**

The regression coefficient was used to test the significant influence of overall self-efficacy and self-regulation among senior high school students. Employing Multiple Regression in JASP Software, the data revealed that self-efficacy and self-regulation among senior high school students had a significant influence. The overall results of self-efficacy predicted self-regulation among senior high school students. Therefore, the significance level of the hypothesis of self-efficacy and self-regulation among senior high school students was rejected.

Correspondingly, this result corroborated the analysis of Toharudin et al. (2019), which pointed out that self-efficacy had a significant influence on self-regulation, as higher self-efficacy promoted better self-control. Moreover, as noted by Doo et al. (2023), it helped underline the interrelated nature of self-efficacy and self-regulation, emphasizing that as students' confidence in their abilities increased, they were more likely to employ effective self-regulation strategies in their learning experiences, ultimately contributing to better academic outcomes. As pointed out by Kelland (2022), he emphasized that self-efficacy influenced self-regulation as it involved individuals' beliefs in their ability to control their behavior, linking their confidence in achieving goals to their capacity for internal behavior management.

### **Multiple Regression Analysis of the Influence of Motivation to Learn on Self-Regulation**

The regression coefficient was used to test the significant influence of overall motivation to learn and self-regulation among senior high school students. Employing Multiple Regression in JASP Software, the data

revealed that motivation to learn and self-regulation among senior high school students had a significant influence. The overall results of motivation to learn predicted self-regulation among senior high school students. Therefore, the significance level of the hypothesis of motivation to learn and self-regulation among senior high school students was rejected.

Subsequently, this result confirmed the analysis of Baars et al. (2018), which pointed out that motivation to learn encompasses self-regulation, as motivated individuals were more likely to effectively control and direct their learning processes. Moreover, the perspective of Zhang and Dong (2022) stated that motivation to learn was crucial for both starting and maintaining self-regulation, which involved actively managing the learning process, making challenging decisions, and investing extra effort, making it essential to comprehend the impact of motivation on academic performance. As mentioned by Meece (2022), motivation to learn was essential as it drove effective self-regulation for goal achievement.

## CONCLUSION

The findings of the study were used to draw conclusions. The level of self-efficacy among senior high school students in Lorenzo S. Sarmiento Sr. National High School was high for effort, high for talent, and high for context. The overall mean was high for the level of self-efficacy. Additionally, the level of motivation to learn among senior high school students in Lorenzo S. Sarmiento Sr. National High School was high for goal orientation, high for self-determination, and high for social engagement, thus the overall mean was high for the level of motivation to learn.

Furthermore, the level of self-regulation among senior high school students in Lorenzo S. Sarmiento Sr. National High School was high for evaluating information, high for triggering change, and high for implementing a plan, thus the overall mean was high for the level of self-regulation. Moreover, the findings opposed the theoretical assumption of no significant relationship between self-efficacy and self-regulation, and motivation to learn and self-regulation of senior high school students in Lorenzo S. Sarmiento Sr. National High School.

Contrary to the assumption, the study concluded that self-efficacy and self-regulation, and motivation to learn and self-regulation were positively correlated. That was, changes in the level of self-efficacy and motivation to learn affected the level of self-regulation. Furthermore, all three domains in self-efficacy and motivation to learn significantly influenced the self-regulation of senior high school students.

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