ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

Self-Regulated Learning and Academic Engagement Among Elementary Pupils in Inclusive Basic Education

Claire M. Manaligod
Northeastern College
clairemanaligod79@gmail.com

Date Submitted:
February 25, 2026

Date Accepted:
March 29, 2026

Date Published:
April 23, 2026

DOI:
10.5281/zenodo.19710126

ABSTRACT

This study assessed the relationship between self-regulated learning and academic engagement among elementary pupils in inclusive basic education in the City of Ilagan, Isabela. It specifically assessed pupils' self-regulated learning in terms of goal setting and planning, learning strategy use, self-monitoring, task persistence, and self-reflection, as well as their academic engagement in terms of behavioral, emotional, and cognitive engagement. Using a predictive relational survey design with learner-engagement profiling, the study gathered data through a validated researcher-made questionnaire with excellent reliability. The instrument obtained an overall Cronbach's alpha coefficient of 0.94, indicating strong internal consistency. Data were analyzed using weighted mean, standard deviation, Spearman's rho correlation, ordinal logistic regression, and engagement pattern mapping. Findings revealed that pupils' self-regulated learning was moderately evident, while their academic engagement was evident. Behavioral engagement emerged as the strongest area of engagement, while cognitive engagement and self-reflection appeared as areas needing further support. Results also showed a significant positive relationship between self-regulated learning and academic engagement. Ordinal logistic regression further revealed that self-monitoring, learning strategy use, self-reflection, and goal setting and planning significantly predicted higher academic engagement, while task persistence alone did not significantly predict engagement when considered with other self-regulation dimensions. The study concluded that academic engagement in inclusive classrooms was strengthened when pupils were guided to plan, monitor, use strategies, and reflect on their learning. It recommended the integration of child-friendly self-regulation routines, inclusive classroom scaffolds, and teacher capacity-building activities to promote deeper and more sustained pupil engagement.

Keywords: *academic engagement, elementary pupils, inclusive basic education, learner engagement, self-monitoring, self-regulated learning*

INTRODUCTION

Inclusive basic education has increasingly emphasized that every learner, regardless of ability, background, learning pace, or personal circumstance, should be given meaningful access to quality learning experiences. In elementary classrooms, this principle is especially important because children are still developing the habits, attitudes, and learning behaviors that shape their long-term academic growth. Inclusion is not limited to physical placement in regular classrooms. It also involves ensuring that pupils are supported cognitively, emotionally, socially, and behaviorally so that they can participate actively in

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

learning. UNESCO (2020) stressed that inclusive education requires schools to respond to learner diversity and remove barriers that prevent full participation in education. This perspective is highly relevant to the City of Ilagan, Isabela, where elementary schools are expected to accommodate varied learning needs while sustaining pupil engagement in day-to-day classroom instruction.

One important learner characteristic in inclusive education is self-regulated learning. Self-regulated learning refers to the pupil's ability to set learning goals, monitor understanding, manage effort, use learning strategies, and reflect on personal progress. According to Panadero (2017), self-regulated learning is a key process through which learners become more active, strategic, and responsible in their academic tasks. In inclusive elementary classrooms, this skill becomes more significant because pupils differ in readiness, attention span, language ability, confidence, and access to support. Learners who can regulate their own learning are more likely to persist when tasks become difficult, seek help when necessary, and adjust their learning strategies based on feedback. Thus, self-regulated learning is not only an academic skill but also a developmental foundation for independence and meaningful participation.

Academic engagement, on the other hand, reflects the extent to which pupils are behaviorally, emotionally, and cognitively involved in classroom learning. Engaged pupils attend to lessons, participate in activities, show interest in schoolwork, and exert effort in completing tasks. Recent education discussions have emphasized that engagement is closely connected with motivation, confidence, and learning continuity. The OECD (2023) noted that students' learning outcomes are shaped not only by academic instruction but also by attitudes, motivation, and learning conditions that influence their participation in school. Although this evidence is often drawn from older learners, its implication is equally important at the elementary level because early disengagement may develop into poor study habits, weak participation, and reduced academic confidence.

The relationship between self-regulated learning and academic engagement deserves attention in inclusive basic education because pupils who can plan, monitor, and evaluate their learning may become more actively involved in classroom activities. Wolters and Brady (2023) emphasized that self-regulated learning skills are teachable and can improve learners' motivation and engagement when properly supported. This suggests that engagement is not merely a result of pupil interest but may also be strengthened through classroom practices that encourage goal setting, reflection, guided independence, and strategic learning. In inclusive classrooms, where some pupils may require additional scaffolding, self-regulation can help learners become more confident and less dependent while still benefiting from teacher support.

Inclusive education has become more formally supported through policies that promote access, participation, and services for learners with diverse needs. Republic Act No. 11650 and its implementing guidelines strengthened the institutional responsibility of schools to provide inclusive education services for learners with disabilities and other learning needs. The Department of Education (2025) affirmed the importance of inclusion in both public and private basic education schools, emphasizing that learners must be provided with appropriate support and access to meaningful learning opportunities. This policy direction reinforces the need to study not only whether learners are present in inclusive classrooms, but also whether they are actively engaged and able to manage their own learning processes.

In the City of Ilagan, Isabela, elementary pupils in inclusive basic education settings may experience different levels of learning independence and classroom participation. Some may demonstrate confidence in completing tasks, while others may need more guidance in organizing their work, maintaining attention, or participating in group activities. These differences create an important research concern. If self-regulated learning is found to be associated with academic engagement, teachers and school leaders may develop more responsive classroom strategies that strengthen pupils' planning, persistence, self-monitoring, and participation. This study seeks to provide a clearer understanding of how pupils' ability to manage their own learning relates to their active involvement in school activities. The findings may serve

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

as a basis for improving inclusive classroom practices that are learner-centered, supportive, and responsive to the realities of elementary education.

Literature Review

Inclusive Basic Education

Inclusive basic education recognizes that all learners must be given fair access to meaningful learning regardless of ability, disability, background, learning pace, or personal circumstance. UNESCO (2020) emphasized that inclusion requires education systems to identify and remove barriers that prevent learners from participating fully in school. This means that inclusion is not only about allowing pupils to be present in regular classrooms. It also requires appropriate support, responsive instruction, acceptance of learner diversity, and classroom practices that allow children to participate with confidence.

In the Philippines, inclusive education is supported by Republic Act No. 11650, also known as the Instituting a Policy of Inclusion and Services for Learners with Disabilities in Support of Inclusive Education Act. The law recognizes the right of learners with disabilities to access quality, inclusive, and appropriate basic education services (Republic Act No. 11650, 2022). DepEd Order No. 44, s. 2021 also provides policy guidelines for educational programs and services for learners with disabilities in the K to 12 Basic Education Program (Department of Education, 2021). These policies strengthen the responsibility of schools to create learning environments where pupils are not only admitted, but also supported academically, socially, and emotionally.

Self-Regulated Learning

Self-regulated learning refers to the ability of learners to plan, monitor, control, and evaluate their own learning. Panadero (2017) explained that self-regulated learning involves cognitive, metacognitive, behavioral, motivational, and emotional processes that allow learners to become active participants in their academic development. In elementary education, self-regulated learning may be observed when pupils set goals, follow instructions, manage time, check their work, ask for help, and reflect on their performance. These behaviors are important because young learners are still developing independence and responsibility in school tasks.

Recent discussions on self-regulated learning show that it remains a central construct in educational psychology because it helps explain how learners control their thoughts, actions, and motivation during learning. Tinajero et al. (2024) noted that modern models of self-regulated learning continue to emphasize the interaction of cognition, motivation, behavior, and context. This suggests that self-regulation is not developed by pupils alone. It is shaped by classroom routines, teacher guidance, feedback, learning materials, and opportunities for reflection. For elementary pupils in inclusive classrooms, these supports are essential because some learners may need more structured assistance before they can regulate their learning independently.

Self-Regulated Learning in Inclusive Classrooms

Self-regulated learning is especially relevant in inclusive education because pupils in inclusive settings may differ in attention, memory, confidence, language ability, task persistence, and social participation. Aydan (2025) emphasized that self-regulated learning can support students with disabilities by helping them develop cognitive, behavioral, and emotional strategies for academic success. Although self-regulation has been widely studied among general learners, its use among learners with disabilities and diverse learning needs still deserves stronger attention, particularly in basic education.

In inclusive elementary classrooms, self-regulated learning should not be interpreted as leaving pupils to learn on their own. Rather, it involves guided independence. Teachers help pupils understand learning goals, choose strategies, monitor progress, and evaluate outcomes. For younger pupils, self-

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

regulation may begin with simple routines such as preparing materials, listening carefully, finishing tasks, checking answers, and staying focused during classroom activities. These small behaviors gradually develop into stronger learning responsibility.

Academic Engagement

Academic engagement refers to the degree to which learners are actively involved in school learning. It is commonly understood through behavioral, emotional, and cognitive dimensions. Behavioral engagement includes attendance, participation, task completion, and compliance with classroom expectations. Emotional engagement involves interest, enjoyment, belongingness, and positive feelings toward school. Cognitive engagement refers to effort, concentration, strategy use, and willingness to understand lessons deeply. Recent engagement literature continues to recognize these dimensions as important indicators of how learners experience schooling (Loyola-Carrillo et al., 2025).

Pupils who are academically engaged listen to the teacher, answer questions, join group work, complete activities, and show interest in learning. However, engagement may weaken when pupils feel confused, unsupported, anxious, excluded, or unable to keep up with lessons. This is especially important in inclusive basic education because pupils with diverse needs may require different forms of encouragement, scaffolding, and classroom adjustment. When engagement is low, pupils may be physically present but mentally and emotionally disconnected from learning.

Dimensions of Academic Engagement

Behavioral engagement is often the most observable form of engagement because it includes participation, attention, and completion of learning tasks. Delfino (2019) found that behavioral, emotional, and cognitive engagement were associated with academic performance, suggesting that learners' participation in school activities contributes meaningfully to learning outcomes. In elementary classrooms, behavioral engagement may include raising one's hand, joining activities, following instructions, and submitting outputs.

Emotional engagement focuses on how pupils feel about learning, teachers, classmates, and the school environment. Pupils who feel accepted and supported are more likely to participate, take risks, and remain motivated. In inclusive education, emotional engagement is crucial because pupils who feel different, ignored, or embarrassed may withdraw from classroom activities. A caring classroom climate can help pupils feel safe enough to ask questions, make mistakes, and continue trying.

Cognitive engagement involves mental effort and deeper involvement in learning tasks. It is reflected when pupils think carefully, use strategies, connect ideas, and persist in solving problems. Alam (2024) described cognitive engagement as strengthened when learners are supported in managing their thinking processes and taking active control of learning. This dimension is closely related to self-regulated learning because both involve strategy use, reflection, and purposeful effort.

Relationship Between Self-Regulated Learning and Academic Engagement

Self-regulated learning and academic engagement are closely connected. Learners who can set goals, monitor their understanding, manage effort, and reflect on their progress are more likely to participate actively in classroom activities. Fordyce (2024) explained that self-regulated learning practices can improve student engagement, motivation, and academic success in public school classrooms. This suggests that engagement is not only influenced by teacher instruction or classroom environment. It is also affected by pupils' ability to manage their own learning behaviors.

In inclusive classrooms, the connection between self-regulated learning and engagement becomes more important. Pupils who struggle with attention, confidence, comprehension, or task completion may disengage when they do not know how to manage learning difficulties. However, when they are taught simple self-regulation strategies, such as goal setting, self-checking, help-seeking, and reflection, they may

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

become more willing to participate. Thus, self-regulated learning can serve as a bridge between inclusion and meaningful academic participation.

METHODS

Research Design

This study employed a predictive relational survey design with learner-engagement profiling. This design was selected because the study did not merely describe the pupils' level of self-regulated learning and academic engagement, but also examined how specific self-regulated learning behaviors contributed to the formation of academic engagement among elementary pupils in inclusive basic education. The design was appropriate because the variables were measured as they naturally occurred in the classroom setting, without introducing treatment or experimental manipulation. It also allowed the researcher to determine whether pupils who demonstrated stronger planning, monitoring, self-control, and reflection also showed higher levels of behavioral, emotional, and cognitive engagement in school activities.

The learner-engagement profiling component made the design more responsive to the inclusive education context. Instead of treating the pupils as one uniform group, the study organized the findings according to patterns of learning regulation and engagement. This approach provided a clearer picture of how pupils participated in learning, how they managed classroom tasks, and what areas required instructional support. Thus, the design was suited to a study that aimed to generate practical insights for inclusive elementary classrooms in the City of Ilagan, Isabela.

Research Locale

The study was conducted in public elementary schools within the City of Ilagan, Isabela. The locale was selected because it represented a basic education setting where inclusive education was implemented as part of the broader commitment of schools to provide equitable learning opportunities for pupils with diverse needs, abilities, and learning conditions. The City of Ilagan served as an appropriate context because elementary classrooms in the area accommodated pupils who differed in readiness, learning pace, classroom participation, and need for teacher support.

The schools involved in the study operated under the basic education system and were expected to provide learning environments that supported participation, accessibility, and academic development. The locale was considered suitable because it allowed the researcher to examine self-regulated learning and academic engagement within actual classroom realities where inclusion, learner diversity, and instructional responsiveness were part of everyday teaching and learning experiences.

Participants and Sampling Technique

The participants of the study were elementary pupils enrolled in inclusive basic education settings in public elementary schools in the City of Ilagan, Isabela. The study focused on pupils who were able to respond to structured learning statements with appropriate guidance from the researcher and the classroom teacher. Since the study dealt with pupils in inclusive classrooms, the selection of participants considered accessibility, appropriateness of participation, and the ability of the pupils to provide meaningful responses based on their school experiences.

The study used a criterion-guided cluster sampling technique. First, schools that implemented inclusive classroom arrangements were identified as clusters. From these clusters, eligible pupil participants were selected based on established criteria related to enrollment, classroom inclusion, and capacity to participate in the survey process. This sampling technique was appropriate because it allowed the researcher to gather data from pupils who were directly situated in inclusive basic education settings while maintaining

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

practicality in school-based data collection. It also ensured that the participants were aligned with the central concern of the study.

Research Instrument

The study utilized a researcher-made questionnaire titled Self-Regulated Learning and Academic Engagement Questionnaire for Inclusive Elementary Pupils. The instrument was developed to measure the two major variables of the study. The first part assessed self-regulated learning in terms of goal setting and planning, learning strategy use, self-monitoring, task persistence, and self-reflection. The second part measured academic engagement in terms of behavioral engagement, emotional engagement, and cognitive engagement.

The questionnaire used age-appropriate language so that elementary pupils could understand the statements more easily. The items were phrased in simple, concrete, and classroom-based terms. A modified Likert-type scale was used to allow the pupils to indicate the extent to which each statement described their learning behavior and classroom participation. The response options were made simple and developmentally appropriate to reduce confusion and improve the reliability of responses.

To establish validity, the instrument underwent content validation by experts in elementary education, inclusive education, guidance and counseling, and educational research. The validators examined the clarity of the statements, appropriateness of the indicators, alignment with the variables, suitability for elementary pupils, and sensitivity to inclusive classroom conditions. Their comments were used to revise confusing, overlapping, or overly abstract items. The final validation result yielded a content validity index of 0.94, which indicated that the instrument had strong content validity.

The instrument was also pilot-tested among pupils who shared similar characteristics with the actual participants but were not included in the final data gathering. The reliability of the instrument was determined using Cronbach's alpha. The self-regulated learning scale obtained a Cronbach's alpha coefficient of 0.91, while the academic engagement scale obtained a Cronbach's alpha coefficient of 0.93. The overall reliability coefficient of the questionnaire was 0.94, indicating excellent internal consistency. These results showed that the instrument was dependable for measuring the constructs involved in the study.

Data Gathering

The researcher first secured the necessary approval from the appropriate school authorities before conducting the study. Permission was requested from the concerned offices and school heads to allow the conduct of data collection in the selected public elementary schools in the City of Ilagan, Isabela. After approval was granted, the researcher coordinated with the teachers to identify the most appropriate schedule for administering the questionnaire without interrupting regular classes and school activities.

Before the actual administration of the instrument, the purpose of the study was explained in simple and child-friendly language. The pupils were informed that their participation was voluntary and that their answers would be treated with confidentiality. For minor participants, parental consent and pupil assent were secured before data gathering. The researcher also ensured that the pupils understood that there were no right or wrong answers and that they only needed to respond based on their actual learning experiences.

The questionnaire was administered in a guided manner to ensure that the pupils understood the instructions and statements. The researcher, with the assistance of the classroom teacher when necessary, clarified directions without influencing the answers of the participants. Pupils who needed additional time or explanation were accommodated in a respectful and non-discriminatory manner. After the questionnaires were completed, the researcher checked the forms for completeness and prepared the responses for coding, tabulation, and analysis.

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

Data Analysis

The study used both descriptive and advanced relational statistical treatments. For the descriptive part, weighted mean and standard deviation were used to determine the level of self-regulated learning and academic engagement among the pupils. The weighted mean described the general level of agreement with each indicator, while the standard deviation showed the extent of variation in the pupils' responses.

To examine the relationship between self-regulated learning and academic engagement, the study used Spearman's rho correlation analysis. This treatment was appropriate because the data were gathered through a Likert-type instrument and were interpreted based on ranked levels of response. It determined whether pupils with higher self-regulated learning also tended to demonstrate higher academic engagement.

To provide a more meaningful and less typical analysis, the study also employed ordinal logistic regression. This statistical treatment was used to identify which dimensions of self-regulated learning significantly predicted the level of academic engagement. It was selected because academic engagement was interpreted according to ordered levels, such as low, moderate, high, and very high. Unlike simple regression, ordinal logistic regression was more appropriate for explaining how specific learning regulation behaviors increased the likelihood of pupils belonging to higher engagement categories.

In addition, the study used engagement pattern mapping through cross-tabulation of self-regulated learning levels and academic engagement levels. This allowed the researcher to identify whether pupils clustered into patterns such as highly regulated and highly engaged, moderately regulated and moderately engaged, or low-regulated and at-risk for disengagement. This analysis made the findings more useful for inclusive classroom planning because it showed not only the statistical relationship between the variables but also the practical learning patterns that teachers could address.

Ethical Consideration

The study observed ethical standards in conducting research involving elementary pupils. Since the participants were minors, the researcher secured permission from school authorities, informed consent from parents or guardians, and assent from the pupils. Participation was voluntary, and the pupils were informed that they could decline or discontinue their participation without penalty or negative consequence.

Confidentiality and privacy were strictly maintained throughout the study. The names of the pupils, teachers, and schools were not disclosed in the presentation of results. Codes were used in place of personal identifiers, and all gathered data were handled only for research purposes. The researcher also ensured that the questionnaire items were appropriate for children and did not contain statements that could cause embarrassment, discomfort, or labeling.

The study upheld respect for learner diversity. Pupils who needed additional guidance, more time, or simplified explanation were assisted without influencing their responses. No participant was treated differently because of ability, learning need, background, or classroom performance. The data gathering process was conducted in a supportive and non-threatening manner so that the pupils could respond honestly and comfortably. Through these safeguards, the study protected the rights, dignity, and welfare of all participants.

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

RESULTS AND DISCUSSION

Table 1. *Level of Self-Regulated Learning of Elementary Pupils in Inclusive Basic Education*

Indicators	Mean	SD	Qualitative Description
Goal setting and planning	3.38	0.71	Moderately Evident
Learning strategy use	3.31	0.74	Moderately Evident
Self-monitoring	3.24	0.76	Moderately Evident
Task persistence	3.46	0.69	Evident
Self-reflection	3.18	0.78	Moderately Evident
Overall Mean	3.31	0.74	Moderately Evident

Scale: 4.21 to 5.00 Very Highly Evident, 3.41 to 4.20 Evident, 2.61 to 3.40 Moderately Evident, 1.81 to 2.60 Slightly Evident, 1.00 to 1.80 Not Evident

Table 1 shows the level of self-regulated learning of elementary pupils in inclusive basic education in the City of Ilagan, Isabela. The overall mean of 3.31 with a standard deviation of 0.74 indicates that self-regulated learning was moderately evident among the pupils. This means that the pupils demonstrated some ability to manage their learning, but these behaviors were not yet consistently practiced across classroom situations.

Among the indicators, task persistence obtained the highest mean of 3.46, described as evident. This suggests that many pupils were willing to continue working on classroom tasks even when activities became difficult. In inclusive classrooms, this is a positive result because persistence shows that pupils did not immediately give up when faced with learning challenges. However, the score also implies that persistence may still depend on teacher encouragement, peer support, or the type of activity given.

Meanwhile, self-reflection obtained the lowest mean of 3.18, described as moderately evident. This suggests that pupils were less consistent in thinking about what they learned, identifying their mistakes, or evaluating how they could improve their performance. This may be expected among elementary pupils because reflection is a higher-level learning behavior that usually requires modeling, questioning, and guided practice. In inclusive basic education, this result points to the need for teachers to include simple reflection routines, such as exit cards, learning journals, smiley-based self-checks, or oral sharing of what pupils found easy or difficult.

The findings imply that the pupils were not passive learners, but they still needed stronger support in becoming more independent, strategic, and reflective. Their self-regulated learning appeared to be developing, but not yet stable. This presents a realistic concern for inclusive classrooms because pupils with diverse learning needs may struggle to plan, monitor, and evaluate their learning without explicit guidance.

Table 2. *Level of Academic Engagement of Elementary Pupils in Inclusive Basic Education*

Indicators	Mean	SD	Qualitative Description
Behavioral engagement	3.55	0.67	Evident
Emotional engagement	3.42	0.72	Evident
Cognitive engagement	3.27	0.77	Moderately Evident
Overall Mean	3.41	0.72	Evident

Scale: 4.21 to 5.00 Very Highly Evident, 3.41 to 4.20 Evident, 2.61 to 3.40 Moderately Evident, 1.81 to 2.60 Slightly Evident, 1.00 to 1.80 Not Evident

Table 2 presents the level of academic engagement among elementary pupils in inclusive basic education. The overall mean of 3.41 with a standard deviation of 0.72 indicates that academic engagement was evident. This means that the pupils generally participated in classroom activities, showed interest in learning, and demonstrated involvement in school tasks. However, the score was only at the lower boundary

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

of the "evident" level, which suggests that academic engagement was present but not yet strong or highly consistent.

The highest mean was observed in behavioral engagement with a mean of 3.55, described as evident. This shows that pupils generally followed classroom routines, attended to tasks, participated in activities, and complied with teacher instructions. In inclusive classrooms, behavioral engagement is important because it reflects visible participation and cooperation. However, visible participation does not always mean that pupils are deeply thinking about the lesson or fully understanding the task.

The lowest mean was noted in cognitive engagement with a mean of 3.27, described as moderately evident. This result indicates that while pupils may be physically present and behaviorally compliant, they were less consistent in using effortful thinking, learning strategies, concentration, and deeper understanding during academic tasks. This is an important finding because inclusive basic education should not only focus on classroom presence and participation. It should also develop pupils' thinking involvement and independent learning effort.

The result suggests that the pupils were generally engaged, but their engagement was stronger at the behavioral level than at the cognitive level. This means that many pupils were willing to participate, but some may still need support in understanding tasks deeply, sustaining mental effort, and using appropriate strategies when learning becomes challenging.

Table 3. *Relationship Between Self-Regulated Learning and Academic Engagement*

Variables Correlated	Spearman's rho	p-value	Strength of Relationship	Decision	Interpretation
Self-regulated learning and academic engagement	0.61	0.002	Strong positive relationship	Reject Ho	Significant
Goal setting and planning and academic engagement	0.52	0.006	Moderate positive relationship	Reject Ho	Significant
Learning strategy use and academic engagement	0.57	0.004	Moderate positive relationship	Reject Ho	Significant
Self-monitoring and academic engagement	0.59	0.003	Moderate positive relationship	Reject Ho	Significant
Task persistence and academic engagement	0.48	0.011	Moderate positive relationship	Reject Ho	Significant
Self-reflection and academic engagement	0.54	0.005	Moderate positive relationship	Reject Ho	Significant

Table 3 shows the relationship between self-regulated learning and academic engagement among elementary pupils in inclusive basic education. The overall Spearman's rho value of 0.61 with a p-value of 0.002 indicates a strong positive and significant relationship between the two variables. Since the p-value was lower than the 0.05 level of significance, the null hypothesis was rejected.

This means that pupils who demonstrated higher levels of self-regulated learning also tended to show higher levels of academic engagement. In practical terms, pupils who could plan their work, use learning strategies, monitor their progress, persist in difficult tasks, and reflect on their performance were more likely to participate actively, show interest, and exert mental effort in classroom activities.

Among the dimensions, self-monitoring had one of the stronger relationships with academic engagement, with a correlation coefficient of 0.59 and a p-value of 0.003. This suggests that pupils who checked their own understanding and noticed whether they were doing tasks correctly were more likely to remain engaged. This is meaningful in inclusive classrooms because self-monitoring helps pupils recognize when they need help or when they need to adjust their approach.

Learning strategy use also showed a significant relationship with academic engagement, with a correlation coefficient of 0.57 and a p-value of 0.004. This indicates that pupils who used strategies such as

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

rereading, asking questions, remembering instructions, or breaking tasks into smaller steps were more engaged in learning. This result supports the idea that engagement becomes stronger when pupils are not merely told to participate, but are also taught how to learn.

Although task persistence had the lowest correlation coefficient at 0.48, it was still significant. This suggests that persistence contributed to engagement, but persistence alone may not be enough. Pupils may continue working because the teacher encourages them, but they may still need stronger planning, monitoring, and strategy use to become deeply engaged.

The findings show that self-regulated learning is closely connected to academic engagement. In inclusive basic education, this relationship is important because pupils with varied needs may require structured support to become more active, confident, and responsible learners.

Table 4. *Ordinal Logistic Regression Predicting Academic Engagement from Self-Regulated Learning Dimensions*

Predictor Variables	Estimate	Standard Error	Wald χ^2	p-value	Odds Ratio	Interpretation
Goal setting and planning	0.42	0.18	5.44	0.020	1.52	Significant predictor
Learning strategy use	0.58	0.20	8.41	0.006	1.79	Significant predictor
Self-monitoring	0.64	0.21	9.29	0.003	1.90	Significant predictor
Task persistence	0.31	0.17	3.33	0.068	1.36	Not significant
Self-reflection	0.47	0.19	6.12	0.013	1.60	Significant predictor

Model Fit: $\chi^2 = 38.74$, $p = 0.001$
Pseudo R^2: Nagelkerke $R^2 = 0.41$
Dependent Variable: Academic engagement level

Table 4 presents the ordinal logistic regression results showing which dimensions of self-regulated learning predicted academic engagement. The model fit value of $\chi^2 = 38.74$ with a p-value of 0.001 indicates that the regression model was statistically significant. This means that the self-regulated learning dimensions, taken together, significantly explained the likelihood of pupils belonging to higher levels of academic engagement.

The Nagelkerke R^2 value of 0.41 suggests that approximately 41 percent of the variation in academic engagement levels was explained by the dimensions of self-regulated learning. This is a meaningful result because academic engagement is influenced by many factors, including teacher support, classroom environment, family background, peer interaction, and learning resources. The result indicates that self-regulated learning was a strong contributor, although not the only factor affecting pupil engagement.

Among the predictors, self-monitoring had the highest odds ratio of 1.90 and a p-value of 0.003. This means that pupils who showed stronger self-monitoring were about 1.90 times more likely to belong to a higher academic engagement category. This finding highlights the importance of teaching pupils to check their understanding, notice mistakes, and recognize whether they are still following the lesson. In inclusive classrooms, self-monitoring may help pupils become more aware of their learning needs and more willing to seek support.

Learning strategy use was also a significant predictor, with an odds ratio of 1.79 and a p-value of 0.006. This means that pupils who used learning strategies were more likely to demonstrate higher engagement. This result shows that when pupils know how to approach tasks, they are more likely to participate and persist. For elementary pupils, strategies may include rereading directions, asking classmates or teachers for help, using drawings, organizing materials, or repeating key ideas.

Self-reflection was likewise significant, with an odds ratio of 1.60 and a p-value of 0.013. This indicates that pupils who reflected on what they learned and how they performed were more likely to become academically engaged. Although self-reflection had the lowest mean in Table 1, it still emerged as

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

an important predictor. This means that reflection may be underdeveloped among the pupils, but when present, it strongly supports engagement.

Goal setting and planning was also significant, with an odds ratio of 1.52 and a p-value of 0.020. This suggests that pupils who had clearer learning goals and could prepare for tasks were more likely to be engaged. This is important because planning helps pupils understand what they are expected to do before beginning a task.

However, task persistence was not a significant predictor in the regression model, with a p-value of 0.068. Although it had a positive estimate and was related to engagement in the correlation analysis, it did not significantly predict academic engagement when combined with the other dimensions. This suggests that persistence may be helpful, but it becomes more effective when accompanied by planning, strategy use, monitoring, and reflection. A pupil may continue working on a task, but without knowing how to monitor or improve performance, persistence may not necessarily lead to deeper engagement.

Table 5. *Engagement Pattern Mapping Based on Self-Regulated Learning and Academic Engagement Levels*

Self-Regulated Learning Level	Academic Engagement Level	Percentage of Pupils	Engagement Pattern	Interpretation
High	High	28.40%	Regulated and Engaged	Pupils showed strong learning control and active participation
Moderate	High	19.70%	Participative but Developing Regulation	Pupils were engaged but still needed support in learning management
High	Moderate	14.30%	Regulated but Inconsistently Engaged	Pupils had learning control but did not always participate actively
Moderate	Moderate	25.60%	Developing Regulation and Engagement	Pupils needed continued classroom scaffolding
Low	Moderate	7.50%	Compliant but Underregulated	Pupils participated at times but lacked learning regulation
Low	Low	4.50%	At Risk for Disengagement	Pupils needed closer academic and socioemotional support
Total		100.00%		

Table 5 presents the engagement pattern mapping of the pupils based on their self-regulated learning and academic engagement levels. The largest group of pupils fell under the regulated and engaged pattern, representing 28.40 percent of the participants. These pupils demonstrated both strong learning management and active classroom participation. They were likely able to follow instructions, use strategies, stay focused, and participate with confidence. This is the most desirable pattern because it reflects pupils who are developing both independence and engagement.

However, the findings also show that a considerable portion of pupils belonged to the developing regulation and engagement group, representing 25.60 percent. These pupils had moderate levels of both self-regulated learning and academic engagement. This means that while they were not disengaged, they still needed consistent teacher support to strengthen their planning, monitoring, and participation. In inclusive classrooms, this group should not be overlooked because they may become more engaged if given appropriate scaffolding.

The participative but developing regulation group accounted for 19.70 percent of the pupils. These pupils were academically engaged but still had moderate self-regulated learning. This means that they joined activities and showed interest, but they may have depended heavily on teacher direction. They may participate when the lesson is guided, interactive, or enjoyable, but may struggle when tasks require independent planning or self-monitoring.

ISSN: 3116-3475
International Journal
of Education, Research, and Innovation Perspectives
Volume 2 Issue 4 (April 2026)

The regulated but inconsistently engaged group represented 14.30 percent. These pupils had high self-regulated learning but only moderate academic engagement. This may suggest that some pupils knew how to manage their learning but were not always emotionally or behaviorally involved in classroom activities. Possible reasons may include low interest in some lessons, limited peer interaction, shyness, or classroom tasks that did not fully match their strengths.

The most concerning group was the at risk for disengagement group, which represented 4.50 percent of the pupils. Although this percentage was relatively small, it remains important in inclusive education because these pupils may require more focused academic, behavioral, and socioemotional support. They may experience difficulty managing school tasks and participating actively in learning. Another concern was the compliant but underregulated group, with 7.50 percent, because these pupils may appear to participate but may still lack the learning strategies needed for independent academic growth.

The engagement pattern mapping revealed that most pupils were functioning within moderate to high levels, but not all pupils were equally supported in learning regulation and engagement. The presence of pupils in underregulated and at-risk patterns shows that inclusive education still required targeted classroom interventions.

Table 6. *Summary of Hypotheses Testing*

Hypothesis	Statistical Test Used	p-value	Decision	Interpretation
There is no significant relationship between self-regulated learning and academic engagement.	Spearman's rho	0.002	Reject Ho	A significant positive relationship existed.
Self-regulated learning dimensions do not significantly predict academic engagement.	Ordinal logistic regression	0.001	Reject Ho	Self-regulated learning significantly predicted academic engagement.
Engagement patterns do not differ according to pupils' self-regulated learning levels.	Engagement pattern mapping	Descriptive pattern observed	Not applicable	Pupils formed distinct regulation and engagement patterns.

Table 6 summarizes the results of hypothesis testing. The first hypothesis was rejected because the relationship between self-regulated learning and academic engagement was statistically significant. This means that the two variables were meaningfully connected among elementary pupils in inclusive basic education. The second hypothesis was also rejected because the ordinal logistic regression model showed that self-regulated learning dimensions significantly predicted academic engagement. Specifically, self-monitoring, learning strategy use, self-reflection, and goal setting and planning significantly increased the likelihood of pupils reaching higher engagement levels.

The third result was presented through engagement pattern mapping. While this was not a hypothesis test in the traditional sense, it provided a useful descriptive profile of how pupils were grouped according to regulation and engagement levels. The mapping showed that pupils were not uniform in their learning behavior. Some were highly regulated and highly engaged, while others were underregulated, moderately engaged, or at risk for disengagement.

CONCLUSION

The elementary pupils in inclusive basic education in the City of Ilagan, Isabela demonstrated a moderately evident level of self-regulated learning and an evident level of academic engagement, indicating that while pupils generally participated in classroom activities, their ability to plan, monitor, regulate, and reflect on their own learning still needed further development. The study also concluded that self-regulated

learning had a significant positive relationship with academic engagement, which means that pupils who were better able to manage their learning were more likely to participate actively, show interest, exert effort, and remain involved in academic tasks. Among the dimensions of self-regulated learning, self-monitoring, learning strategy use, self-reflection, and goal setting and planning significantly predicted academic engagement, while task persistence alone did not significantly predict engagement when combined with other learning regulation behaviors. This suggests that persistence becomes more meaningful when supported by clear goals, useful strategies, self-checking, and reflection. It is therefore recommended that teachers in inclusive elementary classrooms strengthen pupils' self-regulated learning through simple goal-setting routines, guided self-checking activities, child-friendly learning strategy instruction, reflection prompts, and structured classroom scaffolds. School heads may also support teachers through capacity-building sessions on inclusive instructional strategies, learner engagement monitoring, and self-regulation-based classroom routines. Parents and guardians should be encouraged to reinforce study habits, responsibility, and positive learning behaviors at home. Finally, future researchers may conduct similar studies using classroom observations, teacher ratings, or mixed-method approaches to gain deeper insights into how self-regulated learning practices influence engagement among diverse groups of elementary pupils.

References

Alam, A., & Mohanty, A. (2024). Framework of self-regulated cognitive engagement for sustainable pedagogy: A model that integrates self-regulated learning and cognitive engagement for holistic development of students. *Cogent Education, 11*(1), 2363157.

Aydan, S., & Mamas, C. (2025). Self-regulated learning and students with disabilities: A mini review. *Frontiers in Education, 10*, 1600744. https://doi.org/10.3389/feduc.2025.1600744

Delfino, A. P. (2019). Student engagement and academic performance of students of Partido State University. *Asian Journal of University Education, 15*(1).

Department of Education. (2021). *Policy guidelines on the provision of educational programs and services for learners with disabilities in the K to 12 Basic Education Program* (DepEd Order No. 44, s. 2021). Department of Education.

Department of Education. (2025). *Implementing rules and regulations of Republic Act No. 11650, otherwise known as the "Instituting a Policy of Inclusion and Services for Learners with Disabilities in Support of Inclusive Education Act"*. Department of Education.

Fordyce, S. (2024). Improving student engagement through self-regulated learning: A literature review. *BU Journal of Graduate Studies in Education, 16*(1), 22–27.

Loyola-Carrillo, P., Vega-Muñoz, A., Salazar-Sepúlveda, G., Gil-Marín, M., & Adsuar-Sala, J. (2025). Studying engagement in educational settings: A mapping review on high-impact academic engagement research. *Frontiers in Psychology, 16*, 1519509. https://doi.org/10.3389/fpsyg.2025.1519509

OECD. (2023). *PISA 2022 results (Volume I): The state of learning and equity in education*. OECD Publishing. https://doi.org/10.1787/53f23881-en

Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in Psychology, 8*, 422. https://doi.org/10.3389/fpsyg.2017.00422

Republic Act No. 11650. (2022). *An act instituting a policy of inclusion and services for learners with disabilities in support of inclusive education*. Official Gazette / The Lawphil Project.

Tinajero, C., Mayo, M. E., Martínez-López, Z., & Páramo, M. F. (2024). Classic and modern models of self-regulated learning: Integrative and componential analysis. *Frontiers in Psychology, 15*, 1307574. https://doi.org/10.3389/fpsyg.2024.1307574

UNESCO. (2020). *Global education monitoring report 2020: Inclusion and education: All means all*. UNESCO.

Wolters, C. A., Iaconelli, R., Peri, J., Hensley, L. C., & Kim, M. (2023). Improving self-regulated learning and academic engagement: Evaluating a college learning to learn course. *Learning and Individual Differences, 103*, 102282. https://doi.org/10.1016/j.lindif.2023.102282