



METACOGNITIVE STRATEGIES EMPLOYED BY AUTONOMOUS LEARNERS AND THEIR ACADEMIC PERFORMANCE

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ABSTRACT

This study explores the domain of metacognitive strategies applied by autonomous learners to their academic performance and to address the research problem stated. It comprised the following; level of metacognitive strategies employed by the learners in terms of planning, monitoring, evaluating and reflecting, performance of the learners in english in terms of written works, performances tasks, quarterly exams and the significant relationship between Metacognitive Strategies employed by autonomous learners to their academic performance

On the other hand, descriptive method of research was utilized in this study. A questionnaire was formulated and given to one hundred twenty-eight (128) respondents, who were selected purposefully as Grade 9 students who had an average final grade of 90 percent in English for the first two quarters of the present school year at Pag-asa National High School. The 34-question self-made survey questionnaire focused on the various metacognitive strategies employed by the learner in terms of planning, monitoring, evaluating, and reflecting strategies.

The findings revealed that the level of learners in using metacognitive strategies in terms of Planning, Monitoring, Evaluating, and Reflecting was remarked as strongly agreed and was very high among the respondents. As to the academic performance of the learners in English in terms of written works, academic performance underscores the exceptional performance of the students collectively. Moreover, the academic performance of the learners in English in terms of quarterly examinations for the first and second quarters was both very satisfactory, indicating an overall improvement in academic achievement.

From the results, some indicators show a significant connection; however, other indicators do not display a significant relationship. The researcher found out that several students, as respondents to the study at Pag-asa National High School, did not use some of the strategies suggested. It could indicate that even in the absence of a specific strategy, students continue to learn and acquire knowledge.

It recommends that the findings of the study be applied to provide students with a better grasp of particular metacognitive strategies when comprehending texts in English. Students can improve their capacity to plan, monitor, assess, and reflect on the results of their learning by incorporating these strategies into their learning processes. This proactive strategy eventually facilitates students' academic performance by cultivating attention and expertise in picking the most effective strategies specific to various learning tasks.

KEYWORDS: *metacognitive strategies; autonomous learners; academic performance*

1. INTRODUCTION

Learner-centered approaches have become the dominant paradigm in education, resulting in a significant restructuring of the field in recent years. In educational discourse, the rise of autonomous learners who actively take responsibility for their learning processes has gained prominence. Understanding the cognitive processes underlying academic performance is crucial, and this is emphasized in the focus on learners' development. In order to better understand the connection between the metacognitive strategies employed by autonomous learners and their academic achievement, this research works within the established disciplines of metacognition and autonomous learning.

Although previous researches have examined the general connection between metacognition and academic achievement, there is an apparent absence of information in the literature regarding the particular metacognitive techniques used by independent learners when comprehending a text in English. The objective of this thesis is to establish a distinct area of study within this field by specifically focusing on the metacognitive

strategies used by students who actively influence their learning. With an enhanced and pedagogical framework, this study seeks to provide an understanding of how metacognition appears in the context of self-directed learning based on (Kuo et al., 2013).

This research aims to thoroughly examine the metacognitive strategies used by autonomous learners as well as how this influence academic achievement. Through integrating the theoretical foundations of autonomous learning and metacognition, researcher hope to provide useful information that can guide interventions and practices in the classroom. By means of quantitative research and comprehensive study, this research aims to clarify the efficacy of different metacognitive strategies in varied learning settings, thereby expanding the understanding of how students might improve their cognitive processes to enhance academic performance.

1.1 Statement of the Problem

Specifically, it sought to answer the following questions:



1. What is the level of learners in using metacognitive strategies in terms of;
 - 1.1 Planning
 - 1.2 Monitoring
 - 1.3 Evaluating
 - 1.4 Reflecting
2. What is the performance of the learners in English in terms of;
 - 1.1 Written works
 - 1.2 Performance tasks
 - 1.3 Quarterly examinations
3. Is there a significant relationship between metacognitive strategies employed by autonomous learners and their academic performance?

2. METHODOLOGY

The purpose of the study is to investigate autonomous learners' use of metacognitive strategies and how those strategies relate to their academic achievement. The correlational method of research design used in this investigation to determine whether a connection exists between variables in the study and to determine the relationship of metacognitive strategies to the performance of the students and on how the application of

metacognitive strategies affect the performance of the students in terms of their written works, performance tasks and also their quarterly exams. . According to Curtis EA, Comiskey C, and Dempsey O (2016) stated that patterns and connections between variables can be found using the research method's results and that future events can be predicted using the information available. Participants were junior high school students in grade 9 of the current academic year. This quantitative study examined the relationships between autonomous learners' academic achievement and the metacognitive strategies they use. To do this, a survey questionnaire was employed.

3. RESULTS AND DISCUSSION

This chapter present, analyses and interprets the data gathered that showed significant relationship between metacognitive strategies employed by autonomous learners and their academic performance.

Level of Metacognitive Strategies

Level of metacognitive strategies employed by the learners comprises planning, monitoring, evaluating, and reflecting and was determined by mean and standard deviation.

Table 1. Level of Metacognitive Strategies employed by the Learners in terms of Planning

Indicators	Mean	SD	Remarks
1. I study in advance.	3.49	0.86	Agree
2. I set exact and detailed objectives before beginning any activity or project.	4.12	0.83	Agree
3. I get ready for the activities that are coming up.	4.31	0.78	Strongly Agree
4. I create a schedule that includes a variety of tasks.	3.67	1.00	Agree
5. I usually divide bigger tasks into smaller ones, for me to easily accomplish the part.	4.40	0.88	Strongly Agree
6. I think ahead of time about the strategies and techniques I can employ to understand the topic, subject, or issue.	4.13	0.89	Agree
7. I make sure to concentrate my efforts on the things that are most important by prioritizing activities according to their importance and deadlines.	4.45	0.77	Strongly Agree
8. I try to figure out how lectures can be made more understandable by following a certain order.	4.43	0.75	Strongly Agree

Overall Mean = 4.13

Standard Deviation = 0.91

Verbal Interpretation = High

Table 1 presents the level of metacognitive strategies employed by learners in terms of planning. Students strongly agree that they make sure to concentrate and give effort on things that are important and prioritize activities based on deadlines (M=4.45). Likewise students agree that they make schedule that includes variety of task (M= 3.67). The overall mean of 4.13 and standard deviation of 0.91 indicate that students show a high level of metacognition. This imply that students can optimize their learning experiences. Metacognition helps them to

become aware of their own learning processes, leading to more effective way of learning and improved academic performance. The result highlighted the use of metacognitive strategies in terms of planning, indicating that students are aware of how to organize and plan their study habits by employing metacognition, and it supports the hypothesis that metacognitive strategies are positively associated with the performance of the students.



Table 2. Level of Metacognitive Strategies employed by Learner in terms of Monitoring

Indicators	Mean	SD	Remarks
When I am puzzled by what I am reading, I return and make an attempt to resolve it.	4.77	0.52	Strongly Agree
I assess my performance and determine whether I am working in an efficient way.	3.99	0.85	Agree
I analyze what I hear, read, and see in perspective of what I already know.	4.48	0.71	Strongly Agree
I consider what information is significant enough to recall.	4.26	0.82	Strongly Agree
I determine the accuracy of the solutions using the knowledge gained.	4.27	0.82	Strongly Agree
I determine whether any on-going information has any connections to other topics.	3.95	0.84	Agree
I always double-check my output for errors.	4.30	0.87	Strongly Agree
I go back and forth through the text looking for connections between the ideas.	4.41	0.82	Strongly Agree
I pay close attention to how a paragraph is structured.	4.03	0.81	Agree
I am conscious of how well the methods I employed worked.	3.86	0.82	Agree

Overall Mean = 4.23
Standard Deviation = 0.58
Verbal Interpretation = Very High

Table 2 present the level of metacognitive strategies employed by learners in terms of monitoring. The student agree strongly that when I am puzzled by what I am reading, I return and make an attempt to resolve it." (M=4.77) While students agree "I am conscious of how well the methods I employed worked." (M=3.86) The overall mean of 4.23 and standard deviation of 0.58 The data suggests a strong consensus among students in actively addressing confusion when faced with challenging content, as reflected in the notably high mean score of 4.77, indicating a strong agreement. Conversely, there is comparatively less emphasis placed on evaluating the effectiveness of learning methods, as indicated by the lower

mean score of 3.86, suggesting agreement.

The data reveals a strong inclination among students to actively address confusion when encountering challenging content, while there's comparatively less emphasis on evaluating the effectiveness of their learning methods. Students get more conscious of their positive and negative aspects. Because of their increased self-awareness, they are better able to focus their efforts on the areas that require improvement. Also, higher academic achievement is typically attained by students who diligently track their learning. This is a result of their ability to recognize situations in which they do not grasp something and act right away to solve it.

Table 3. Level of Metacognitive Strategies employed by learners in terms of Evaluating

Indicators	Mean	SD	Remarks
I evaluate if my goals have been met.	4.21	0.88	Strongly Agree
I assess the techniques' usefulness and effectiveness in accomplishing the goals.	4.01	0.84	Agree
I view mistakes as chances for improvement and apply what I learn to enhance the way I work.	4.45	0.78	Strongly Agree
I evaluate how I am doing on a regular basis, asking myself what was effective and what needs to be changed for better results in the future.	4.28	0.83	Strongly Agree
I review my writing tasks on a regular basis to see how I am going.	4.13	0.95	Agree
I evaluate the newly learned information's correctness, reliability, and educational use.	4.19	0.89	Agree
I assess how well my strategies work for various activities and identify any areas that might need change or improvement.	3.92	0.88	Agree
I analyze my understanding to see if the conclusions that I made about the text are true or false.	4.48	0.71	Strongly Agree

Overall Mean = 4.21 Standard Deviation = 0.86 Verbal Interpretation = Very High

Table 3 present Level of Metacognitive Strategies employed by learners in terms of Evaluating. The student agree strongly that I view mistakes as chances for improvement and apply what I learn to enhance the way I work." (M=4.45) While students agree I assess how well my strategies work for various activities

and identify any areas that might need change or improvement (M=3.92). The overall mean of 4.21 and standard deviation of 0.86. The data indicates a strong commitment among students



to view mistakes as opportunities for growth, as evidenced by the notably high mean score of 4.45, indicating strong agreement. Conversely, there is comparatively less emphasis on assessing the usefulness and effectiveness of techniques in goal accomplishment, as indicated by the lower mean score of 3.92 suggesting agreement.

The data reflects a notable tendency among students to embrace mistakes as opportunities for improvement, while there's comparatively less focus on evaluating the effectiveness of

techniques in achieving goals. Based on the results, students may change their learning method to achieve improved results through regular assessments. Acknowledging their most productive study techniques and adjusting the ones that fail to lead to better study habits and, ultimately, better performance and grades. Self-assessment empowers students to take on more accountability for their learning. They take the initiative to look for resources, ask for assistance, and make the required changes on their own, without depending on others.

Table 4. Level Metacognitive Strategies employed by Learners in terms of Reflecting

Indicators	Mean	SD	Remarks
I think about my decisions, how I think, and how I approach things intellectually all the time.	4.27	0.87	Strongly Agree
I recall how I achieved my goals by looking at what I did.	4.34	0.80	Strongly Agree
I analyze how I make decisions, thinking back on the factors that affect my decisions and considering the choices for next steps.	4.20	0.83	Agree
I review my own work by taking into consideration the methods and skills I used to complete a certain task.	4.12	0.85	Agree
I review my past experiences, both inside and outside of the classroom, based on what I have previously learned.	4.34	0.83	Strongly Agree
Every now and then, I review how well I divide up my time between various duties and consider where I may make improvements..	4.19	0.80	Agree
To help me understand other related tasks, I review what I have done before.	4.28	0.78	Strongly Agree
When I reflect on how I prepared for the activities, I consider whether my chosen strategies, skills, and knowledge were appropriate for the tasks at hand.	4.24	0.82	Strongly Agree

Overall Mean = 4.25

Standard Deviation = 0.82

Verbal Interpretation = Very High

Table 4 present level Metacognitive Strategies employed by Learners in terms of reflecting the student agree strongly that I recall how I achieved my goals by looking at what I did (M=4.34) While students agree I review my own work by taking into consideration the methods and skills I used to complete a certain task (M=4.12) The overall mean of 4.25, with a standard deviation of 0.82, signifies a consistent commitment to reflective practices among students. The data illustrates students' strong inclination towards recalling their goal achievement process and reviewing their work, indicating a consistent commitment to reflective practices. The data reveals a strong tendency among students to actively reflect on their goal achievement process, as indicated by the notably high mean score of 4.34, suggesting strong agreement. Conversely, there is a slightly lower emphasis on reviewing their own work by considering the methods and skills utilized, as indicated by the lower mean score of 4.12, suggesting agreement.

The data shows students consistently exhibit a strong inclination towards reflecting on their decision-making processes and past experiences, emphasizing a proactive approach to self-assessment and improvement. Students can see improvements in their performance and understanding by reflecting back on their learning experiences. They are able to create more efficient learning strategies since they can observe what works and what does not apply for them. In addition to that, Students gain the ability to control their own learning. They get better at establishing objectives, keeping track of their progress, and modifying their strategy of action as needed.

Performance of the learners

Learners' performance categorizes written works, performance task and quarterly examination and was determine by mean and standard deviation.



Table 5. Performance of the learners in English in terms of Written Works

Written Works	First Quarter		Second Quarter		Remarks
	Frequency	Percentage	Frequency	Percentage	
90-100	29	22.66%	110	85.94%	Outstanding
85-89	39	30.47%	7	5.47%	Very Satisfactory
80-84	43	33.59%	0	0.00%	Satisfactory
75-79	15	11.72%	4	3.13%	Fairly Satisfactory
Below 75	2	1.56%	7	5.47%	Needs Improvement
Mean	85.52		94.14		
SD	5.26		6.51		
Verbal Interpretation	Very Satisfactory		Outstanding		

Table 5 show the performance of the students in terms of written works in the first quarter and second quarter. In the first quarter, twenty-nine students, comprising 22.66% of the total, achieved grades between 90-100. Thirty-nine students, accounting for 30.74% of the total, attained grades ranging from 85-89. The majority of students, totalling 33.59%, received grades between 80-84. Additionally, fifteen students, representing 11.725% of the total, scored within the range of 75-79.

Finally, two students, constituting 1.56% of the total, obtained a grade of below 75. The overall mean for the first quarter grade of the students in the written performance is 8.52 standard deviation of 5.26 indicating a very satisfactory performance among the students. In the second quarter, it's evident that the majority of students, comprising 85-94% of the total, achieved grades ranging from 90-100. However, a small number of students, seven in total or 5.47%, received grades below 75. Furthermore, the overall mean grade of 94.14, with a standard deviation of 6.51, underscores the exceptional performance of the students collectively.

The results indicate that the students' performance, both individually and collectively, is notably strong and commendable for the second quarter. Students that use metacognitive skills are better able to plan and organize their work. They are able to organize their thoughts logically, create an introduction, a body, and a conclusion for their writing, and outline their ideas. Students' trust in their writing skills increases when they regularly apply metacognitive strategies. Their self-awareness about their areas of strength and growth makes them feel more equipped and driven to complete writing projects.

However, various students require different kinds of encouragement due to differences in their metacognitive ability levels. It takes time, constant practice, and instructor support for implementation to be successful. By incorporating these techniques into the process of writing and offering continuous support, teachers can assist students in becoming more proficient and independent writers.

Table 6. Performance of the learners in English in terms of Performance Tasks

Performance Tasks	First Quarter		Second Quarter		Remarks
	Frequency	Percentage	Frequency	Percentage	
90-100	108	84.38%	80	62.50%	Outstanding
85-89	20	15.63%	45	35.16%	Very Satisfactory
80-84	0	0.00%	3	2.34%	Satisfactory
75-79	0	0.00%	0	0.00%	Fairly Satisfactory
Below 75	0	0.00%	0	0.00%	Needs Improvement
Mean	93.19		90.79		
SD	2.76		3.21		
Verbal Interpretation	Outstanding		Outstanding		

The table provides a detailed breakdown of student performance across various grade ranges for the first and second quarters, offering insights into their academic achievements. Notably, in the first quarter, an overwhelming 84.38% of students achieved grades within the "Outstanding" range (90-100%), showcasing an exceptional level of performance.

However, in the subsequent quarter, while still impressive, the percentage of students in this range decreased to 62.50%. This slight decline notwithstanding, the overall performance remained consistently "Outstanding," reflecting the strong academic calibre of the students. Additionally, there was a notable increase in the percentage of



students falling within the "Very Satisfactory" range (85-89%) from 15.63% in the first quarter to 35.16% in the second quarter, indicating significant improvement. Conversely, there were no students falling within the "Satisfactory" range (80-84%) in the first quarter, but a small proportion (2.34%) did so in the second quarter, signalling a positive trend. Overall, the data underscores the high level of academic achievement among students, with the majority consistently performing at outstanding levels, albeit with slight fluctuations observed between quarters. The table depicts a notable distribution of student performance across different grade ranges, with the majority achieving at an outstanding level in both quarters, although there were slight fluctuations in percentages between the two periods.

Moreover, students that employ metacognitive strategies are able to organize, monitor, and assess how they approach learning and solving problems, which can greatly improve their

performance on a variety of tasks. These strategies are very helpful for performance tasks, which frequently require applying knowledge and abilities in real-world or real-life situations. Students who employ metacognitive strategies demonstrate enhanced abilities to apply their knowledge and comprehension across a range of tasks and situations, including but not limited to writing, mathematics, reading comprehension, memorization, critical thinking, and problem-solving.

Additionally, it pertains to how pupils manage their academics and how they adapt too many performance-affecting circumstances. Academic achievement plays a vital role in the overall development of young individuals. Those who excel in their studies are more likely to successfully navigate life challenges and attain financial and career prosperity.

Table 7. Performance of the learners in English in terms of Quarterly Examinations

Quarterly Exam	First Quarter		Second Quarter		Remarks
	Frequency	Percentage	Frequency	Percentage	
90-100	25	19.53%	40	31.25%	Outstanding
85-89	9	7.03%	29	22.66%	Very Satisfactory
80-84	11	8.59%	12	9.38%	Satisfactory
75-79	17	13.28%	15	11.72%	Fairly Satisfactory
Below 75	66	51.56%	32	25.00%	Needs Improvement
Mean	74.89		83.08		
SD	13.05		10.51		
Verbal Interpretation	Needs Improvement		Satisfactory		

The table presents the distribution of student performance on quarterly exams for both the first and second quarters. It provides insights into the frequency and percentage of students within different grade ranges, along with the corresponding remarks and statistical measures. In the first quarter 19.53% of students scored in the "Outstanding" range (90-100), indicating exceptional performance 7.03% achieved grades in the "Very Satisfactory" range (85-89), reflecting a high level of proficiency. 8.59% fell into the "Satisfactory" range (80-84), demonstrating competency in the subject matter 13.28% received grades in the "Fairly Satisfactory" range (75-79), indicating a fair level of understanding. The majority of students, constituting 51.56%, scored below satisfactory levels, categorized as "Needs Improvement. "In the second quarter. There was an improvement in student performance, with 31.25% achieving "Outstanding" grades. The percentage of students in the "Very Satisfactory" range increased to 22.66%. There were slight decreases in the percentages of students in the "Satisfactory" and "Fairly Satisfactory" ranges. The percentage of students needing improvement decreased to 25.00%. The mean scores for the first and second quarters were 74.89 and 83.08, respectively, indicating an overall improvement in academic achievement. Additionally, the standard deviation decreased from 13.05 to 10.51, suggesting reduced variability

in student scores.

Students who use metacognitive strategies—which entail being aware of and in charge of their own learning processes—perform significantly better on exams. Students are motivated by metacognitive strategies to study thoroughly instead of passively. Instead of repetitive memorizing, they concentrate on conceptual comprehension, which improves retention and recall during tests. Accurate assessment of comprehension by students increases the likelihood that they will focus on their areas of difficulty. Exam results are improved overall when this focused strategy is used. They gain the capacity to modify their learning techniques in accordance with what fits those best, which results in more efficient studying and improved exam performance.

On the other hand, for students with busy schedules, incorporating metacognitive methods into normal study routines might be difficult because it takes time and dedication. It can be challenging to apply metacognitive techniques consistently. For students to remain motivated, they might require constant encouragement as well as reminders. It is necessary to modify metacognitive strategies to adjust for different learning preferences and styles. What is effective for



one student might not be for another.

Overall, the data reflects changes in student performance over time, with improvements observed in the second quarter across various grade ranges, indicating progress in academic

proficiency. The table depicts an overall improvement in student performance on quarterly exams, with notable increases in the percentages of students achieving higher grades a significant decrease in the proportion of students needing improvement between the first and second quarters.

Table 8. Significant relationship between Metacognitive Strategies employed by autonomous learners and their academic performance

Metacognitive Strategies		Students Performance					
		First Quarter			Second Quarter		
		Written Works	Performance Tasks	Quarterly Examination	Written Works	Performance Tasks	Quarterly Examination
Planning	Pearson Correlation	0.088	-.187*	0.107	0.029	0.097	.178*
	Sig. (2-tailed)	0.325	0.035	0.230	0.743	0.280	0.045
	N	127	127	127	127	127	127
Monitoring	Pearson Correlation	.223*	-0.052	-0.052	0.046	0.15	.175*
	Sig. (2-tailed)	0.012	0.563	0.559	0.608	0.092	0.049
	N	127	127	127	127	127	127
Evaluating	Pearson Correlation	.191*	-0.095	0.014	0.055	0.163	0.166
	Sig. (2-tailed)	0.031	0.286	0.878	0.540	0.067	0.062
	N	127	127	127	127	127	127
Reflecting	Pearson Correlation	.191*	-0.146	0.044	0.01	0.085	.187*
	Sig. (2-tailed)	0.031	0.102	0.624	0.914	0.342	0.035
	N	127	127	127	127	127	127

Table 8 show significant relationship between metacognitive strategies in terms of planning, monitoring, evaluating and reflecting employed by autonomous learners and their performance in terms of written work, performance task, and quarterly examination. The correlation between planning and performance is notable in both performance tasks and quarterly examinations. Similarly, monitoring shows a significant association with written assignments and quarterly examinations. Additionally, evaluating demonstrates a significant relationship with written assignments, while reflecting also indicates a significant connection with quarterly exams ($p < 0.05$).

However, other indicators do not display a significant relationship. This emphasize that focusing on planning, monitoring, evaluating, and reflecting could be particularly beneficial for enhancing academic performance among

autonomous learners. Therefore, educators and learners alike may benefit from emphasizing and incorporating these metacognitive strategies into their learning processes.

The results showed that students' writing quality and capacity for self-regulation during the writing process significantly improved as a result of specific training in the planning, monitoring, and evaluation of writing assignments. Students' writing skills significantly increase when metacognitive strategies are included in writing instruction. Students can develop into more skilled and self-assured writers by being encouraged to be aware of and in charge of their writing processes.

To improve students' writing performance, teachers should think about including metacognitive skills instruction into their writing curriculum.



4. CONCLUSION AND RECOMMENDATIONS

The study shows the relationship between metacognitive strategies employed by autonomous learners and their academic performance has not significant. According to the findings, the respondents firmly agreed that learners used a high level of metacognitive processes when it came to planning, monitoring, evaluating, and reflecting. Academic performance highlights the outstanding performance of the pupils as a whole when it comes to the English language learners' written works. Additionally, the learners' academic performance in English was highly satisfactory in both the first and second quarters' quarterly assessments, suggesting an overall improvement in their academic achievement. However, certain indicators indicate a noteworthy correlation, while other indicators do not demonstrate a meaningful association.

The researcher concludes that the research hypothesis stating that there is no significant relationship between metacognitive strategies employed by autonomous learner and their academic performance is accepted.

Based on the drawn conclusions resulted to the following recommendations:

1. For the students, it is recommended that the findings of the study be employed to allow them to have a deeper understanding of specific metacognitive strategies for comprehending English texts. By integrating these strategies into their learning processes, students can enhance their ability to plan, monitor, evaluate, and reflect on their learning outcomes. This proactive approach fosters mindfulness and proficiency in selecting appropriate strategies tailored to different learning assignments, ultimately facilitating their academic success.

2. It suggested that teachers delve deeper into understanding the various strategies employed by learners to enhance their academic performance. By gaining insights into these strategies, teachers can develop more comprehensive assessments to gauge students' progress accurately. Additionally, they can design meaningful activities that cater to the diverse needs of all learners, including those who may be struggling academically. This approach ensures that all students receive the support and resources they need to succeed, fostering an inclusive learning environment.

3. For future researchers, it is further suggested to explore the effectiveness of specific metacognitive strategies in enhancing learners' comprehension of English texts. Examining the significant effects of different strategies, such as planning, monitoring, evaluating, and reflecting, can provide important information about how effective strategies have been in a variety of educational settings, as well as for the students in particular. Additionally, exploring the implementation of these strategies in diverse educational settings and cultures could enrich our understanding of their universality and adaptability. Such research endeavours would contribute to the development of evidence-based practices and interventions aimed at optimizing learning outcomes for students.

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