



METACOGNITION AS A STRATEGY TOWARDS STUDENTS' PHYSICAL FITNESS HABITS AND PERFORMANCES

Rhodora Ansay Custodio

Laguna State Polytechnic University Sta. Cruz Laguna 4009 Philippines

ABSTRACT

This study aimed to analyze the use of Metacognition as a Strategy in improving Physical Fitness Habits and Performances. More specifically, the study determined the level of utilizing metacognition strategy, students Physical Fitness habit and performance. These elements were used to determine the relationship of utilizing metacognition strategies on the students' physical fitness habits and performance in practical tasks.

Through descriptive research design, the study gathered relevant data through survey questionnaires validated by experts and through the accomplishment of practical tasks guided by developed grading rubric. Identified through purposive sampling, 198 bona fide learners taking PATHFIT 1 or Physical Activities Towards Health and Fitness from the Laguna University took part in the study. Results were then statistically treated through mean, standard deviation, and Pearson Product Moment Correlation Coefficient.

The findings of the study revealed that participants in the study show a high extent of utilizing metacognitive strategies. This utilization significantly contributes to improving their physical fitness habits, fostering adherence and consistency. The findings collectively underscore the considerable relationship of metacognitive strategies on participants' physical fitness habits. Additionally, the overall assessment reveals a very satisfactory level of physical fitness habit among the students studied.

Anent this, the analysis of metacognitive strategies' relationship on physical fitness habits and academic performance reveals significant relationships, highlighting the importance of metacognition in shaping behaviors and outcomes. These results reject the hypothesis and advocate for integrating specific metacognitive techniques to support well-being and academic success.

The results yielded the recommendation to systematically integrate metacognitive strategies like self-reflection, self-explanation, self-questioning, and note-taking into physical fitness and educational programs to enhance participant engagement and effectiveness. Emphasizing self-discipline, consistency, meditation practices, and exercise routines is advised to promote long-term adherence to physical activity. Personalized feedback and practical assessments should be continued to support individual growth in physical fitness skills. Further research is suggested to explore moderating variables and mediators of the relationship between metacognition and physical fitness, informing optimized interventions and instructional approaches.

KEYWORDS: Metacognition; Physical Fitness Habits; Performances.

1. INTRODUCTION

Physical fitness stands as a cornerstone of individual well-being, with far-reaching implications for both physical and mental health. In recent years, the exploration of cognitive processes in enhancing physical fitness has garnered increasing attention from researchers and practitioners alike. One such cognitive process, metacognition, holds promise as a strategic tool in augmenting the development of physical fitness habits and performances.

Metacognition, broadly defined as the ability to monitor and regulate one's own thinking and learning processes, has demonstrated its efficacy in various educational and skill-based domains. However, its potential impact on the domain of physical fitness remains relatively uncharted territory. This thesis seeks to delve into this unexplored terrain, investigating the utilization of metacognition as a deliberate strategy to foster improved physical fitness habits and performances.

By harnessing metacognition, individuals may gain a deeper understanding of their own physical capabilities, limitations, and the most effective strategies to achieve their fitness goals. This shift towards a more introspective and self-regulated approach could mark a substantial departure from conventional fitness paradigms. Moreover, as the global prevalence of

sedentary lifestyles and associated health risks continues to rise, the integration of metacognition into fitness practices could serve as a timely and vital intervention. By establishing a connection between cognitive processes and physical outcomes, this research aims to unlock new avenues for

Towards integrative approach of using metacognition in instruction, this study aims to determine the relationship of the Use of Metacognition as a Strategy in Improving Physical Fitness Habits and Performances of selected learners of Physical Activities Toward Health and Fitness at Laguna University.

1.1 Statement of the Problem

Specifically, this sought to answer the following questions.

1. What is the level of utilizing metacognition strategy in terms of:

- 1.1 Goal setting;
- 1.2 Self-questioning;
- 1.3 Self-explanation;
- 1.4 Self-reflection; and
- 1.5 Note taking?

2. What is the status of students of Physical Fitness habit in terms of:



- 2.1 Consistency;
 - 2.2 Self-discipline;
 - 2.3 Meditation practices; and
 - 2.4 Exercise routines?
3. What is the level of student performance in term of practical tasks.
4. Is there a significant relationship between the level of utilizing metacognition strategies and the students' physical fitness habits?
5. Is there a significant relationship between the level of utilizing metacognition strategies and the students' performance in practical tasks?

2. METHODOLOGY

The study employed the descriptive research method, which focuses on providing a detailed portrayal of data and characteristics within a population. This method involves the collection of factual, precise, and systematic data using measures such as averages, frequencies, and similar statistical calculations. It is fundamentally straightforward as it imparts significance to the quality and status of ongoing facts (Zheng et al., 2016).

According to Keum (2017), the descriptive method is a research design that involves recording, describing, interpreting, analyzing, and comparing events. The primary objective of descriptive research is to present a systematic depiction of a situation and offer factual and accurate interpretations about the status of individuals, objects, settings, events, or areas of interest. With the use of this method, the population which will be the subject of the research shall provide data to be gathered to be critically analyzed and properly recorded.

3. RESULTS AND DISCUSSION

This chapter deals with the presentation, analysis and interpretation of data gathered to answer the sub problem relative to the main problem of this study. This part discusses the findings of the study based on the research questions.

Level of Utilizing Metacognition Strategy

In this study, the level of using the metacognition in improving physical fitness habits refers to Goal setting, Self-questioning, Self-explanation, Self- reflection and Note-taking which were statistically measured using mean and standard deviation.

To quantify the effectiveness of these metacognitive strategies, the study employs statistical methods, specifically calculating the mean and standard deviation. The mean provides an average level of usage for each strategy among participants, indicating general trends and common practices. The standard deviation offers insight into the variability of these practices, showing how consistently participants apply these strategies. Together, these metrics help in understanding not only the prevalence of metacognitive strategies in improving physical fitness habits but also the degree of variation in their application among different individuals. This quantitative approach allows for a detailed analysis of how metacognitive strategies impact physical fitness habits, offering valuable data for developing more effective fitness programs. The data from Table 1 reveals a consistent pattern of students utilizing metacognitive strategies, particularly goal setting, to enhance their actively physical fitness habits.

Across the surveyed statements, students reported high mean scores ranging from 3.60 to 3.72, all falling within the "Often" category, indicating a frequent engagement in goal setting as a metacognitive strategy in their physical education.

Table 1
Level of Utilizing Metacognition Strategy in terms of Goal Setting

STATEMENT	MEAN	SD	REMARKS
<i>The students were able to:</i>			
<i>I regularly engage in goal setting as a metacognition strategy in my physical education.</i>	3.62	0.72	<i>Often</i>
<i>I believe that setting specific goals is essential for improving my physical performance.</i>	3.62	0.56	<i>Often</i>
<i>I find that goal setting is an effective way to provide direction for my physical education.</i>	3.72	0.58	<i>Often</i>
<i>I am motivated to use goal setting to enhance my metacognitive skills in physical activities.</i>	3.60	0.59	<i>Often</i>
<i>I think that setting measurable goals helps me stay focused and motivated in physical activities.</i>	3.60	0.49	<i>Often</i>
Weighted Mean		3.63	
SD		0.59	
Verbal Interpretation		High Extent	

This high level of regular engagement is further supported by relatively low standard deviations, revealing a consensus among respondents regarding the importance and effectiveness of goal setting in improving their physical performance and providing direction in physical education activities.

Moreover, the data reflects students' intrinsic motivation towards goal setting as a means to enhance their metacognitive

skills in physical activities.

With a mean score of 3.60 and a standard deviation of 0.59, students expressed a strong belief in the role of goal setting in maintaining focus and motivation during physical activities, underscoring its value as a self-regulation tool in the context of physical fitness habits.



The data reveals that students demonstrate a high extent of utilizing metacognition strategies in terms of goal setting. With a weighted mean of 3.63 and a standard deviation of 0.59, the responses indicate a strong agreement among students regarding their use of metacognitive approaches when setting goals. This high extent implies that students are actively engaging in self-reflection, planning, monitoring, and evaluating their goal-setting processes.

In practical terms, this means that students are likely to be employing strategies such as breaking down goals into

manageable steps, monitoring their progress regularly, adjusting their strategies as needed, and reflecting on their performance and outcomes. These metacognitive strategies contribute to effective goal setting by enhancing students' awareness of their learning process, fostering self-regulation, and improving goal attainment.

Overall, the high extent of utilizing metacognition in goal setting reveals that students are employing thoughtful and strategic approaches to setting and achieving their goals, which can lead to enhanced learning outcomes and academic success.

Table 2
Level of Utilizing Metacognition Strategy in terms of Self-questioning

STATEMENT	MEAN	SD	REMARKS
<i>The students were able to:</i>			
<i>I frequently engage in self-questioning as a metacognition strategy in my physical education.</i>	3.72	0.63	<i>Often</i>
<i>I believe that asking myself questions helps me understand and improve my physical performance.</i>	3.66	0.52	<i>Often</i>
<i>I find self-questioning to be an effective way to assess my knowledge and skills in physical activities.</i>	3.72	0.54	<i>Often</i>
<i>I am motivated to use self-questioning to enhance my metacognitive skills in physical education.</i>	3.63	0.55	<i>Often</i>
<i>I think that self-questioning helps me set clear and achievable goals in physical activities.</i>	3.63	0.48	<i>Often</i>
Weighted Mean		3.69	
SD		0.55	
Verbal Interpretation		High Extent	

The data from Table 2 indicates a high level of engagement among students in using self-questioning as a metacognitive strategy to improve their physical fitness habits. Across the statements surveyed, students consistently reported a mean score of 3.63 to 3.72, all falling under the "Often" category, indicating frequent utilization of self-questioning in their physical education. This active involvement in self-questioning reflects students' belief in its effectiveness for understanding and enhancing their physical performance, as evidenced by mean scores ranging from 3.63 to 3.72 and relatively low standard deviations, indicating a shared perception among respondents.

Moreover, the data highlights students' motivation to use self-questioning as a tool to enhance their metacognitive skills in physical education. With a mean score of 3.63 and a standard deviation of 0.55, students expressed a strong inclination towards leveraging self-questioning not only for assessing their knowledge and skills in physical activities but also for setting clear and achievable goals. This demonstrates a proactive

approach towards self-regulated learning and performance improvement in the realm of physical fitness habits.

The data indicates that students demonstrate a high extent of utilizing metacognition strategies, specifically self-questioning, in their learning processes. With a weighted mean of 3.69 and a standard deviation of 0.55, the responses reveal a strong agreement among students regarding the use of self-questioning as a metacognitive strategy. This high extent implies that students actively engage in asking themselves questions to monitor their understanding, clarify concepts, and improve their learning outcomes.

The high extent of utilizing self-questioning as a metacognitive strategy indicates that students are employing effective cognitive monitoring and self-regulation techniques, which can lead to improved learning outcomes, problem-solving abilities, and overall academic success.

Table 3
Level of Utilizing Metacognition Strategy in terms of Self Explanation

STATEMENT	MEAN	SD	REMARKS
<i>The students were able to:</i>			
<i>I frequently use self-explanation as a metacognition strategy in my physical education.</i>	3.78	0.61	<i>Often</i>
<i>I believe that self-explanation helps me understand and improve my physical performance.</i>	3.65	0.57	<i>Often</i>
<i>I find self-explanation to be an effective tool for clarifying my thought processes in physical activities.</i>	3.65	0.55	<i>Often</i>



<i>I am motivated to use self-explanation to enhance my metacognitive skills in physical education.</i>	3.71	0.48	<i>Often</i>
<i>I think that self-explanation helps me set clear and achievable goals in physical activities.</i>	3.67	0.52	<i>Often</i>
Weighted Mean		3.70	
SD		0.58	
Verbal Interpretation		High Extent	

Table 3 reveals a significant engagement among students in using self-explanation as a metacognitive strategy to improve their physical fitness habits. Across the statements surveyed, students consistently reported mean scores ranging from 3.65 to 3.78, all indicating a high frequency of employing self-explanation in their physical education, falling within the "Often" category. This active involvement in self-explanation reflects students' belief in its effectiveness for understanding and enhancing their physical performance, as evidenced by the mean scores and relatively low standard deviations, revealing a shared perception among respondents regarding the benefits of self-explanation.

More so, the data highlights students' motivation to use self-explanation as a tool to enhance their metacognitive skills in physical education. With a mean score of 3.71 and a standard deviation of 0.48, students expressed a strong inclination towards leveraging self-explanation not only for clarifying their thought processes but also for setting clear and achievable goals in physical activities. This demonstrates a proactive approach towards self-regulated learning and performance improvement in the context of physical fitness habits.

In general, students demonstrate a high extent of utilizing metacognition strategies, particularly self-explanation, in their learning processes. With a weighted mean of 3.70 and a standard deviation of 0.58, the responses indicate a strong agreement among students regarding the use of self-explanation as a metacognitive strategy. This high extent implies that students actively engage in explaining concepts to themselves, articulating their understanding, and making connections between new information and existing knowledge.

In practice, self-explanation involves students verbally or mentally explaining concepts, processes, or problem-solving steps to deepen their understanding and monitor their comprehension. By engaging in self-explanation, students enhance their metacognitive awareness, promote deeper learning, and improve their ability to apply knowledge in different contexts.

The high extent of utilizing self-explanation as a metacognitive strategy indicates that students are employing effective cognitive monitoring, self-regulation, and reflective thinking techniques, which can lead to enhanced learning outcomes, critical thinking skills, and overall academic success.

Table 4

Level of Utilizing Metacognition Strategy in terms of Self-reflection

STATEMENT	MEAN	SD	REMARKS
<i>The students were able to:</i>			
<i>I am familiar with the concept of self-reflection as a metacognition strategy for developing physical fitness habits.</i>	3.94	0.67	<i>Often</i>
<i>I believe that being aware of my thinking processes (metacognition) is crucial for developing and maintaining physical fitness habits.</i>	3.60	0.55	<i>Often</i>
<i>I actively use self-reflection as a strategy to improve my physical fitness habits.</i>	3.60	0.56	<i>Often</i>
<i>I engage in metacognitive activities (e.g., setting goals, monitoring progress) as a regular part of my routine for physical fitness.</i>	3.70	0.49	<i>Often</i>
<i>I find that self-reflection significantly increases my motivation to engage in physical fitness activities.</i>	3.66	0.53	<i>Often</i>
Weighted Mean		3.72	
SD		0.62	
Verbal Interpretation		High Extent	

The data from Table 4 indicates a high level of familiarity and active engagement among students in using self-reflection as a metacognitive strategy to improve their physical fitness habits. Across the statements surveyed, students consistently reported mean scores ranging from 3.60 to 3.94, all falling within the Often category, revealing a frequent application of self-reflection in their routines for developing and maintaining physical fitness habits. This strong inclination towards self-reflection is further supported by relatively low standard

deviations, indicating a shared understanding and practice among respondents regarding the importance of metacognitive awareness in their physical fitness endeavors.

Moreover, the data highlights students' belief in the critical role of metacognition, particularly self-reflection, in developing and maintaining physical fitness habits.

With a mean score of 3.72 and a standard deviation of 0.62, students expressed a strong conviction regarding the



significance of being aware of their thinking processes and engaging in metacognitive activities as integral components of their routine for physical fitness.

This underscores a proactive approach towards self-regulated learning and behavior modification to achieve and sustain optimal physical well-being.

The data from Table 5 reveals a high level of engagement among students in using note-taking as a metacognitive strategy to improve their physical fitness habits. Across the statements

surveyed, students consistently reported mean scores ranging from 3.61 to 3.98, all falling within the "Often" category, indicating a frequent utilization of note-taking in their physical education activities. This active involvement in note-taking reflects students' belief in its effectiveness for reflecting on and enhancing their physical performance, as evidenced by the mean scores and relatively low standard deviations, revealing a shared perception among respondents regarding the benefits of note-taking as a metacognitive tool.

Table 5
Level of Utilizing Metacognition Strategy in terms of Note Taking

STATEMENT	MEAN	SD	REMARKS
<i>The students were able to:</i>			
<i>I take down notes as a metacognition strategy in my physical education activities.</i>	3.98	0.71	<i>Often</i>
<i>I believe that keeping notes helps me reflect on and improve my physical performance.</i>	3.67	0.59	<i>Often</i>
<i>I find that notetaking is a valuable tool for tracking my progress in physical education.</i>	3.70	0.62	<i>Often</i>
<i>I am motivated to use notetaking to enhance my metacognitive skills in physical education.</i>	3.61	0.49	<i>Often</i>
<i>I think that notetaking helps me set and achieve goals in physical activities.</i>	3.68	0.59	<i>Often</i>
Weighted Mean		3.69	
SD		0.56	
Verbal Interpretation		High Extent	

The data highlights students' motivation to use note-taking as a tool to enhance their metacognitive skills in physical education. With a mean score of 3.69 and a standard deviation of 0.56, students expressed a strong inclination towards leveraging note-taking not only for tracking progress but also for setting and achieving goals in physical activities. This demonstrates a proactive approach towards self-regulated learning and performance improvement in the context of physical fitness habits.

Results show high extent of utilizing metacognition strategies, specifically note-taking, in their learning processes. With a weighted mean of 3.69 and a standard deviation of 0.56, the responses indicate a strong agreement among students regarding the use of note-taking as a metacognitive strategy. This high extent implies that students actively engage in taking organized and effective notes to support their learning and comprehension.

Effective note-taking involves students using various techniques such as summarizing key points, organizing information in a structured format, and integrating personal

insights or questions.

By engaging in note-taking, students enhance their metacognitive awareness, promote active engagement with course material, and improve their ability to recall and apply knowledge.

The high extent of utilizing note-taking as a metacognitive strategy indicates that students are employing effective learning strategies, promoting deeper understanding, and enhancing their overall academic success through organized and thoughtful note-taking practices.

Level of Students Physical Fitness Habit

In this study, the level of students' Physical Fitness habit refers to Consistency, Self-discipline, Meditation practices, and Exercise routines.

The level of athletes' well-being was revealed in the following table, which shows the statement, mean, standard deviation and verbal interpretation.



Table 6
Level of Students' Physical Fitness Habit in terms of Consistency

STATEMENT	MEAN	SD	REMARKS
<i>The students were able to:</i>			
<i>I consistently maintain a regular exercise schedule.</i>	3.81	0.63	<i>Often</i>
<i>I believe that staying consistent with my physical fitness routine is important for my health.</i>	3.65	0.58	<i>Often</i>
<i>I find it easy to stick to a consistent exercise plan.</i>	3.66	0.52	<i>Often</i>
<i>I am motivated to maintain consistency in my physical fitness habits.</i>	3.69	0.49	<i>Often</i>
<i>I think that maintaining a consistent routine helps me reach my fitness goals.</i>	3.67	0.54	<i>Often</i>
Weighted Mean		3.69	
SD		0.56	
Verbal Interpretation			High Extent

The data from Table 7 indicates a commendable level of consistency among students in maintaining their physical fitness habits. Across the statements surveyed, students consistently reported mean scores ranging from 3.65 to 3.81, all falling within the "Often" category, revealing a high degree of regularity in their exercise schedules and adherence to

consistent physical fitness routines. This consistent engagement in physical activity reflects students' strong belief in the importance of maintaining regular exercise for their health, as evidenced by the mean scores and relatively low standard deviations, indicating a shared understanding and commitment among respondents towards sustaining healthy lifestyle habits.

Table 7
Level of Students' Physical Fitness Habit in terms of Self-discipline

STATEMENT	MEAN	SD	REMARKS
<i>The students were able to:</i>			
<i>I exhibit self-discipline in adhering to my physical fitness goals.</i>	3.90	0.67	<i>Often</i>
<i>I believe that self-discipline is essential for maintaining a healthy and active lifestyle.</i>	3.59	0.57	<i>Often</i>
<i>I find it relatively easy to resist temptations that interfere with my fitness regimen.</i>	3.66	0.59	<i>Often</i>
<i>I am motivated to develop self-discipline as a key aspect of my fitness habits.</i>	3.61	0.49	<i>Often</i>
<i>I think that self-discipline helps me overcome obstacles in my fitness journey.</i>	3.68	0.54	<i>Often</i>
Weighted Mean		3.72	
SD		0.60	
Verbal Interpretation			High Extent

Succeeding data highlights students' motivation to maintain consistency in their physical fitness habits. With a mean score of 3.69 and a standard deviation of 0.56, students expressed a strong inclination towards staying motivated and dedicated to their exercise plans, recognizing the benefits of consistency in reaching their fitness goals. This demonstrates a proactive approach towards health-conscious behavior and a positive attitude towards maintaining long-term physical well-being through consistent exercise routines.

indicate a shared understanding and practice of self-discipline in their fitness habits, highlighting the importance they place on consistency and dedication to their physical well-being.

Table 8 indicates a high level of self-discipline among students in adhering to their physical fitness goals. Across the statements surveyed, students consistently reported mean scores ranging from 3.59 to 3.90, with all scores falling within the "Often". This indicates a strong commitment and self-discipline in maintaining a healthy and active lifestyle among the respondents. The relatively low standard deviations further

The data reflects students' belief in the essential role of self-discipline in maintaining a healthy lifestyle. With a mean score of 3.72 and a standard deviation of 0.60, students expressed a strong conviction regarding the significance of self-discipline in overcoming obstacles and resisting temptations that may interfere with their fitness regimens. This indicates a proactive approach towards developing and strengthening self-discipline as a fundamental aspect of their fitness journey, showcasing their motivation and determination to achieve their health and wellness goals.



Table 8

Level of Students' Physical Fitness Habit in terms of Meditation Practices

STATEMENT	MEAN	SD	REMARKS
<i>The students were able to:</i>			
<i>I believe that meditation can positively impact physical fitness habits.</i>	3.94	0.69	<i>Often</i>
<i>I incorporate meditation practices into my regular physical fitness routine.</i>	3.65	0.58	<i>Often</i>
<i>I find that meditation helps me connect with my body and movements during exercise.</i>	3.67	0.58	<i>Often</i>
<i>I feel more relaxed and less stressed after incorporating meditation into my fitness routine.</i>	3.66	0.50	<i>Often</i>
<i>I believe that meditation positively impacts my overall well-being, including physical health.</i>	3.68	0.57	<i>Often</i>
Weighted Mean		3.67	
SD		0.63	
Verbal Interpretation		High Extent	

The data from Table 8 indicates a strong belief among students in the positive impact of meditation on physical fitness habits. The mean scores ranging from 3.65 to 3.94, verbally interpreted as Often, reveal that students often perceive meditation as beneficial for their physical well-being. These scores also indicate a consistent pattern of incorporating meditation into their fitness routines and experiencing benefits such as improved mind-body connection, reduced stress, and enhanced overall well-being.

Overall, results indicated high extent of belief among students regarding the positive impact of meditation on physical fitness habits. The weighted mean of 3.67, with standard deviation of 0.63 indicates a strong agreement with statements related to incorporating meditation into fitness routines, feeling more

connected with the body during exercise, experiencing reduced stress, and perceiving overall well-being improvement.

The data from Table 9 indicates that students place a high value on structured exercise routines as part of their physical fitness habits. The mean scores ranging from 3.57 to 3.83, which is interpreted as Often, reveal a strong consensus among students regarding the importance and efficacy of following well-organized exercise plans. They believe that structured routines are essential for achieving their fitness goals, find them manageable to adhere to, feel motivated to create and maintain them, and see them as instrumental in targeting specific fitness objectives.

Table 9

Level of Students' Physical Fitness Habit in terms of Exercise Routines

STATEMENT	MEAN	SD	REMARKS
<i>The students were able to:</i>			
<i>I follow structured exercise routines as part of my fitness regimen.</i>	3.83	0.81	<i>Often</i>
<i>I believe that having a well-planned exercise routine is crucial for achieving my fitness goals.</i>	3.62	0.57	<i>Often</i>
<i>I find it easy to adhere to a structured exercise plan.</i>	3.67	0.60	<i>Often</i>
<i>I am motivated to create and maintain effective exercise routines.</i>	3.57	0.57	<i>Often</i>
<i>I think that structured exercise routines help me target specific fitness objectives.</i>	3.67	0.54	<i>Often</i>
Weighted Mean		3.67	
SD		0.63	
Verbal Interpretation		High Extent	

In essence, the results show that students highly value structured exercise routines as part of their fitness habits. With a weighted mean of 3.67 and a standard deviation of 0.63, the responses indicate a strong agreement among students regarding the importance and effectiveness of following well-planned exercise regimens. They believe that structured routines are crucial for achieving fitness goals, find them easy to adhere to, feel motivated to maintain them, and perceive them as helpful in targeting specific fitness objectives.

The findings indicate that students who follow structured exercise routines are more likely to stay committed to their fitness goals, experience motivation, and perceive tangible benefits in terms of targeted fitness improvements. This underscores the importance of promoting structured and well-planned exercise programs among students to support their physical fitness habits effectively.



Table 10
Level of Students' Performance in terms of Practical Task

Criteria	Practical Task 1			Practical Task 2			Practical Task 3			Practical Task 4		
	Mean	SD	VI	Mean	SD	VI	Mean	SD	VI	Mean	SD	VI
Technique and Form	4.25	0.68	O	4.63	0.49	O	4.75	0.58	O	5.00	0.68	O
Proper Intensity	4.25	0.70	O	4.38	0.71	VS	4.63	0.58	O	5.00	0.72	O
Progress	4.38	0.58	O	4.38	0.67	VS	5.00	0.60	O	5.00	0.69	O
Promptness	4.25	0.59	O	4.25	0.60	VS	4.25	0.66	V S	5.00	0.59	O
Safety	4.50	0.48	O	4.50	0.54	O	4.50	0.71	O	4.50	0.62	O
Total	4.33	0.61	O	4.43	0.60	VS	4.63	0.63	O	4.90	0.66	O
Weighted Mean	4.35											
Standard Deviation	0.58											
Verbal Interpretation	Very Satisfactory											

The data from Table 10 presents the level of students' performance across four practical tasks related to physical fitness. Across all criteria, students demonstrated a very satisfactory level of performance, as indicated by the weighted mean of 4.35 and the verbal interpretation of "Very Satisfactory." In terms of technique and form, students scored particularly high, with mean scores ranging from 4.25 to 5.00 across different practical tasks. This means that students exhibited a strong grasp of proper technique and form in their physical fitness activities, showcasing their competence and skill in executing these tasks effectively.

Furthermore, students showed consistent performance in maintaining proper intensity, making progress, and demonstrating promptness in completing the tasks. Mean scores ranging from 4.25 to 5.00 across different practical tasks indicate that students were able to maintain the appropriate level of intensity, make noticeable progress, and complete tasks in a timely manner. Additionally, students prioritized safety, with mean scores of 4.50 across all practical tasks, reflecting their adherence to safety protocols and practices during physical fitness activities. Overall, the data reflects a high level of competency, consistency, and safety consciousness among students in performing practical tasks related to physical fitness.

Ultimately, the results showed that learners attainment of Very Satisfactory rating across all four practical tasks, indicated a high level of competence and commitment in their physical fitness activities. The criteria for this rating encompass several key areas. Under Technique and Form, learners demonstrated proper form and technique throughout the activities, executing movements with accuracy, control, and precision. They avoided common errors and maintained correct posture and alignment, showcasing a strong understanding of the fundamentals of physical movements. This adherence to proper technique not

only enhances the effectiveness of their workouts but also reduces the risk of injury, ensuring a safer exercise environment.

In terms of Proper Intensity, learners consistently displayed the appropriate level of effort and intensity throughout their activities. They worked at a challenging yet manageable level based on their individual fitness levels, pushing themselves to perform their best without overexertion. This balance of intensity is crucial for achieving optimal fitness gains while preventing burnout or injury. Regarding Progress, learners showed measurable improvement compared to their previous performances. They demonstrated a willingness to learn and apply feedback, which helped them enhance their skills and performance. Additionally, they took the initiative to set personal fitness goals and worked diligently towards achieving them, reflecting their commitment to continuous improvement.

Promptness was another area where learners excelled. They arrived on time, ready to participate, followed instructions efficiently, and managed their time well, showing respect for both the activity and their peers.

Safety was also a top priority, with learners adhering to safety guidelines and protocols, using proper equipment, and taking necessary precautions to prevent injuries. They responded appropriately to any safety concerns or emergencies, ensuring a safe environment for all participants.

In summary, the performance of students in the practical test is deemed very satisfactory, with a total of 198 students assessed. The results revealed a predominant high level of achievement across the assessed tasks, with the majority of students receiving a verbal interpretation of 'Very Satisfactory'.

These consistent findings underscore the effectiveness of



practical testing methodologies in assessing student learning outcomes and highlight the overall proficiency of students in practical skill application within educational settings.

Relationship between the Metacognition in Improving Physical Fitness Habits and Students' Physical Fitness Habit

In this study, using metacognition to improve physical fitness habits involves the application of specific cognitive strategies such as goal setting, self-questioning, self-explanation, self-reflection, and note-taking. These metacognitive strategies enable students to take control of their learning processes by becoming more aware of their thoughts, actions, and progress.

Students' physical fitness habits, as defined in the study, include consistency, self-discipline, meditation practices, and exercise routines. Consistency refers to maintaining regular participation in physical activities, which is crucial for long-term fitness improvement.

Self-discipline involves the ability to stay committed to fitness goals despite potential distractions or obstacles. Exercise routines encompass structured plans that guide students through various physical activities designed to improve their fitness levels. By integrating these physical fitness habits with metacognitive strategies, the study aims to provide a comprehensive approach to enhancing students' physical fitness

and overall health.

Table 11 displays the results of statistical analysis examining how metacognition strategies relate to various physical fitness habits. In most cases, the analysis found statistically significant relationships, as indicated by r-values less than 0.05. More particularly, the results indicated that Goal Setting has significant relationship to improving physical fitness habits across all indicated variables. This is similar to Self-explanation, Self-reflection and Note taking which were statistically noted to have significant relationship to Consistency, Self-discipline, Meditation Practices and Exercise Routines as Physical Fitness Habits.

This means that individuals who actively engage in these metacognitive practices are more likely to develop and maintain consistent exercise routines, exhibit greater self-discipline, integrate meditation practices into their fitness regimen, and overall, achieve better physical fitness outcomes.

Moreover, the specific finding that Goal Setting consistently relates to improvements across all measured variables underscores its foundational importance. By setting clear, achievable goals, individuals are able to create structured plans that guide their fitness activities, leading to sustained progress and motivation.

Table 11

Relationship between the Metacognition in Improving Physical Fitness Habits and Students' Physical Fitness Habit

Metacognition Strategies	Physical Fitness Habit								
	Consistency	Analysis	Self-discipline	Analysis	Meditation Practices	Analysis	Exercise Routines	Analysis	
Goal Setting	r-value	5.870*		5.909*		5.856*		9.559*	
	Sig.(2-tailed)	0.000	Significant	0.000	Significant	0.000	Significant	0.000	Significant
	N	198		198		198		198	
Self-questioning	r-value	3.310*		0.857		3.157*		1.158	
	Sig.(2-tailed)	0.000	Significant	0.392	Not significant	0.002	Significant	0.248	Not significant
	N	198		198		198		198	
Self-explanation	r-value	2.910*		2.759*		2.598*		2.650*	
	Sig.(2-tailed)	0.004	Significant	0.006	Significant	0.010	Significant	0.009	Significant
	N	198		198		198		198	
Self-reflection	r-value	2.496*		4.683*		4.298*		4.003*	
	Sig.(2-tailed)	0.013	Significant	0.000	Significant	0.000	Significant	0.000	Significant
	N	198		198		198		198	
Note Taking	r-value	3.115*		12.535*		9.009*		12.040*	
	Sig.(2-tailed)	0.002	Significant	0.000	Significant	0.000	Significant	0.000	Significant
	N	198		198		198		198	

*Sig.(2-tailed) < 0.05, significant

Similarly, Self-explanation, Self-reflection, and Note-taking contribute to enhanced physical fitness by enabling individuals to critically assess their actions, learn from their experiences, and keep detailed records of their progress. This self-awareness and ongoing evaluation foster a disciplined and mindful approach to fitness, which is essential for long-term success. The data suggest that integrating these metacognitive strategies into fitness programs could significantly improve adherence

and outcomes, providing a powerful tool for trainers, educators, and individuals seeking to optimize their physical fitness habits.

The relationship between self-questioning and self-discipline, as well as exercise routines, did not meet the threshold for statistical significance. Specifically, the r-value associated with this relationship was not less than 0.05, indicating that the observed relationship between self-questioning and these



particular aspects of physical fitness habits may not be statistically significant. This lack of significance means that there may not be a meaningful association between self-questioning and self-discipline or exercise routines within the context of the study.

This aligns with contemporary literature emphasizing the role of metacognition in enhancing physical activity outcomes. For instance, a study by Boudreau, Heisz, and Cragg (2020) highlights the positive impact of metacognitive strategies on exercise adherence and performance, supporting the observed relationships in Table 11. Additionally, research by Jones, Mackay, and Peters (2019) underscores the importance of metacognitive processes, such as goal setting and self-monitoring, in promoting consistent exercise routines and self-discipline, further corroborating the significant relationships identified in the analysis.

While there is limited recent literature specifically addressing this relationship, studies like those by Tasso et al. (2018) and Zimmerman and Schunk (2020) emphasize the broader impact of metacognitive strategies on self-discipline and behavior regulation, revealing potential nuances that may influence the observed lack of statistical significance in this particular context. Overall, the synthesis of the analysis and related literature highlights the complex interplay between metacognition and physical fitness habits, emphasizing the

need for continued research to elucidate the intricacies of these relationships.

Table 12 presents the results of statistical analysis investigating how various metacognition strategies relate to students' performance in practical tests. The table outlines the significance of these relationships based on statistical analysis, typically using r-values to determine significance. A r-value less than 0.05 generally indicates a significant relationship, while a r-value greater than or equal to 0.05 reveals non-significance.

The statistical analysis found that these metacognition strategies—self-questioning, self-reflection, and note-taking—were significantly associated with students' performance in practical tests therefore indicating significant relationship. This means that students who employed these strategies tended to perform better in practical tests compared to those who did not use them or used them less frequently.

Conversely, the relationships between goal-setting and self-explanation and students' practical test performance were not found to have no significant relationship. This indicates that there was not enough evidence to conclude a meaningful association between these particular metacognition strategies and performance in practical tests within the context of the study.

Table 12
Relationship of Metacognition Strategies to Practical Test Performance

Metacognition Strategies in Improving Physical Fitness Habits		Students' Performance in the Practical Test	Analysis
Goal Setting	r-value	1.38	Not Significant
	Sig.(2-tailed)	0.169	
	N	198	
Self-questioning	r-value	2.017*	Significant
	Sig.(2-tailed)	0.045	
	N	198	
Self-explanation	r-value	1.791	Not Significant
	Sig.(2-tailed)	0.075	
	N	198	
Self- reflection	r-value	2.551*	Significant
	Sig.(2-tailed)	0.011	
	N	198	
Note Taking	r-value	3.102*	Significant
	Sig.(2-tailed)	0.002	
	N	198	

*Sig.(2-tailed) < 0.05, significant

In summary, Table 5 demonstrates that while certain metacognition strategies—such as self-questioning, self-

reflection, and note-taking—are significantly related to students' practical test performance, others—specifically, goal-



setting and self-explanation—are not significantly associated with performance in practical tests based on the statistical analysis conducted.

4. CONCLUSION AND RECOMMENDATIONS

Based on the results of data analysis, the following conclusions are drawn:

1. The analysis of metacognition strategies and their relationship on physical fitness habits reveals significant relationship, underscoring the importance of metacognitive processes in shaping health behaviors. This reveals that the hypothesis is therefore rejected.
2. The metacognition strategies in students' performance in practical tests reveals significant relationship to these cognitive processes on academic outcomes. This reveals that the hypothesis is therefore rejected.

With the analysis of the results of the present study, the following are hereby recommended:

1. Given the significant tendency towards the utilization of metacognitive strategies, particularly self-reflection, self-explanation, self-questioning, and note-taking, it is recommended to incorporate these strategies systematically into physical fitness training programs or educational interventions. Training sessions can be designed to explicitly teach these strategies, helping participants develop metacognitive skills that could enhance their engagement and effectiveness in physical fitness activities.
2. With self-discipline, consistency, meditation practices, and exercise routines being identified as key factors contributing to commendable physical fitness habits, it is recommended to emphasize the cultivation of these aspects in physical fitness programs. Strategies such as goal-setting, feedback mechanisms, and habit-building techniques could be integrated into fitness curricula to promote the development and maintenance of these habits among participants, thereby fostering long-term adherence to physical activity.
3. Given the high level of achievement observed in the practical test performance, it is recommended to continue emphasizing practical assessments in physical fitness education. Additionally, educators and trainers should provide personalized feedback and support to students, catering to individual needs and areas for improvement, thereby fostering continuous growth and development in physical fitness skills and competencies.

REFERENCE

1. Zheng, L., Kozma, R. B., Ayala, C., & Nault, M. C. (2016). *The role of self-generated questions in assisting students' understanding of content in an online course*. *Distance Education*, 37(1), 24-41.
2. Keum, H., & Ahn, Y. (2020). *Effects of Note-taking on academic performance and emotional health: A literature review*. *International Journal of Higher Education*, 9(2), 226-241.