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The curriculum program on Physical Activities Towards Health and Fitness (PATHFit) and students' physical performance

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Abstract: This study aimed to assess the level of implementation of PATHFIT 1 physical activities and its relationship to the physical fitness performance of students from the University of Mindanao Main Campus, Matina, Davao City, during the first semester of the school year 2024–2025. Utilizing a descriptive-correlational research design, data were gathered from 4 sections of PATHFIT 1 classes handled by two different instructors through survey questionnaires and standardized physical fitness test (PFT) results, both pre- and post-test. Findings revealed that the overall level of implementation of PATHFIT 1 activities was "Highly Implemented." Students' physical fitness performance significantly improved from pre-test to post-test in both health-related and skill-related fitness components. In health-related components, the most notable improvements were in body composition, cardiovascular endurance, muscular endurance, muscular strength, and flexibility. In skill-related components, improvements were observed in agility, balance, coordination, power, reaction time, and speed. Statistical analysis showed a significant relationship between the level of implementation of PATHFIT activities and students' post-test physical fitness performance. Moreover, a significant difference was found between the pre-test and post-test scores, confirming the effectiveness of the implemented activities. These results highlight the positive impact of structured and well-implemented physical activities on the physical fitness of college students, emphasizing the importance of continuous and deliberate application of fitness programs in the tertiary curriculum.

Keywords: PATHFIT 1, Physical fitness test, Implementation, Health-related Fitness, skill-related fitness, Correlational study

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INTRODUCTION

Physical Fitness is the capacity of the body's systems to function properly and efficiently, enabling our bodies to be healthy and easily carry out everyday tasks (Bi et al., 2020). A study by Bélanger et al. (2025) found out that engaging in moderate-to-vigorous physical activities (MVPA) during adolescence significantly predicted higher levels of physical activity in emerging adulthood (ages 20-23). This suggests that early engagement in MVPA is crucial for maintaining an active lifestyle and reaping long-term health benefits.

However, physical inactivity has become a prevalent issue among young people today. According to the findings of Elgaddal et al. (2022) under Centers for Disease Control and Prevention (CDC), only 46.9% of adults aged 18 and older met the Physical Activity Guidelines for aerobic physical activity, and only 24.2% met the guidelines for both aerobic and muscle-strengthening activities. This indicates that a significant portion of adults are still not engaging in adequate physical activity.

Physical activity has numerous positive effects on both physical and mental health, as evidenced by studies (Liu et al., 2022). It has been associated with a decreased incidence of diabetes, obesity, cancer, stroke, cardiovascular disease, and mental health issues like depression and anxiety. Non-communicable diseases (NCDs) associated with physical inactivity are substantial (Katzmarzyk et al., 2021). The Philippines, as a lower-middle-income nation, is disproportionately affected financially by the increase in NCD incidence (Palad et al., 2023). Despite government regulations, most children and adolescents in the Philippines do not engage in the required level of physical exercise for health. More effort is required to effectively translate these goals into quantifiable programs, emphasizing the need to build national surveillance systems and expand opportunities for physical exercise to encourage people, especially students, to lead active and healthy lifestyles (Cagas et al., 2022).

A study published by Santiago (2024) in the Davao Research Journal examined the physical activity levels and health benefits among university students in Davao City. The study found that 58% of the participants did not meet the World Health Organization's recommended levels of physical activity for adults. The research highlighted the numerous benefits of regular physical activity, including improved cardiovascular health, reduced risk of chronic diseases, and enhanced mental well-being. Factors such as academic pressure, lack of facilities, and social influences were identified as significant contributors to physical inactivity among these students. Additionally, work that does not involve moderate-to-vigorous physical activity, sociocultural attitudes, and intrinsic motivation (Guo et al., 2023) further contributed to the increasing number of physically inactive adults in Davao City. The trend of increased physical inactivity among students has become a significant threat to physical education in higher education. Sedentary lifestyles have become prevalent among college students, especially during the pandemic (Romero-Blanco et al., 2020). This underscores the urgent need for targeted interventions to promote physical activity and combat the adverse effects of a sedentary lifestyle.

To address this issue, the Commission on Higher Education (CHED) in the Philippines introduced CHED Memorandum Order No. 39 series of 2021, entitled Policies, Standards, and Guidelines on the Implementation of Tertiary Physical Education: Physical Activity Towards Health and Fitness (PATHFIT) Courses. PATHFIT aims to promote physical education that addresses deficiencies in fitness levels, preparing students for sports or recreation-specific education, which they will carry with them for lifelong fitness. It integrates fitness engagement with sports participation, social interaction, and diverse movements to help students live meaningfully in a complex, rapidly changing, and globalized world. As higher education institutions in the Philippines gradually implement this new framework, various fitness programs have been developed based on the viability of each institution. This study aims to evaluate the effects of the newly implemented curriculum, PATHFIT, on students' physical performance through Physical Fitness Test (PFT) pre-test and post-test, which includes Health-Related and Skill-Related Fitness Components. This study can potentially contribute to evidence-based advancements in tertiary PE programs in the Philippines.

Research Objectives

This study determined the effect of curriculum program of physical fitness activities to students' physical performance towards health and fitness:

1. What is the level of implementation of the PATHFit activities in terms of:

1.1 regressive exercises

1.2 progressive exercises

1.3 locomotor skills

1.4 non-locomotor skills

1.5 healthy eating habits

2. What is the performance of the participants in the pre-test and post-test physical fitness test in terms of:

2.1 health Related fitness components

2.2 skill related fitness components

3. Is there a significant relationship between the level of implementation of PATHFit activities to the physical fitness performance of the participants?

4. Is there a significant difference between the pre-test and post-test of students' physical fitness test?

5. Based on the findings of the study, what enhancement program may be proposed?

METHODOLOGY

Research Design

This study employs a descriptive correlational research design, which is used to examine the relationship between variables and describe their characteristics without manipulating them. The primary aim of this study is to determine the effects of physical activities on students' physical performance by analyzing the significant relationship between the level of implementation of the PATHFit curriculum and the post-test results. By utilizing this design, the study seeks to provide a comprehensive understanding of how effectively the PATHFit curriculum influences students' physical fitness and overall health outcomes. This approach allows for the identification of key factors that contribute to successful physical education programs and offers insights into potential areas for improvement.

Respondents and Locale of the Study

This study was conducted at the University of Mindanao, one of the largest and most progressive higher education institutions in Davao City. Located on a 28-hectare campus in Matina Pangi Rd., Davao del Sur, UM offers convenient access to various forms of commute and commercial

establishments. The respondents will be students enrolled in PATHFIT 1 during the 1st semester of the 2024-2025 school year.

The respondents of this study are students of tertiary education institution in Davao City which is the University of Mindanao. Students in this study are all enrolled in PATHFIT 1-Physical Activities Toward Health and Fitness – movement competency training (MCT), 1st semester, school year 2024-2025. Only one hundred four (104) PAHTFIT 1 students out of one hundred forty one (141) from different programs will participate in this quantitative non-experimental study

Research Instrument

This study utilized two instruments: a survey questionnaire and a standardized physical fitness test. The survey questionnaire, developed by the researcher and validated by experts, is designed to assess the level of implementation of PATHFit activities during class. It comprises 33 items, categorized into indicators such as regressive exercises, progressive exercises, locomotor skills, non-locomotor skills, and healthy eating habits. Responses are measured using a 5-point Likert Scale: 5 – Always, 4 – Often, 3 – Sometimes, 2 – Seldom, 1 – Never.

The second instrument, the Standardized Physical Fitness Test Score Card, was introduced by Dr. Aparicio H. Mequi (2015). This test is used in both public and private schools for the Physical Education and School Sports Program. The Physical Fitness Test (PFT) is a set of activities designed to determine a student's level of physical fitness, conducted before and after the implementation of physical activities (pre-test and post-test). The test is divided into two parts: Health-related and Skill-related fitness components. Health-related fitness components include Body Composition (BMI), Cardiovascular Endurance (3-Minute Step), Strength (Push-up & Basic Plank), and Flexibility (Zipper Test & Sit and Reach). Skill-related fitness components include Coordination (Juggling), Agility (Hexagon Agility Test), Speed (50-meter sprint), Power (Standing Long Jump), Balance (Stork Balance), and Reaction Time (Stick Drop Test). These instruments will be used to evaluate the effect of the new PATHFit curriculum on students' physical performance.

Data Analysis

In order to achieve the desired outcome of this study, the following statistical tools were utilized:

Weighted mean. This was used to determine the average level of implementation of the PATHFit activities, giving a general view of how frequently and effectively the activities were carried out based on participants' responses.

Standard Deviation. This was used to measure the consistency of responses regarding the implementation level, indicating how much individual responses varied from the average.

Pearson correlation. This was used to determine the significant relationship between the level of implementation of PATHFit activities and students' post-test results, assessing whether higher levels of implementation were associated with improved physical fitness outcomes.

T-test. This was employed to determine whether there was a significant difference between the students' pre-test and post-test performance, assessing the effectiveness of the PATHFit curriculum in improving physical fitness outcomes.

FINDINGS AND DISCUSSION

Level of implementation of the PATHFit program in terms of regressive exercise

The overall weighted mean of 4.50 for the implementation of regressive exercise which indicates that the level of implementation in regressive exercises are excellent. Overall result reflects that students excel in regressive exercises, showing high engagement, proper technique, and consistent performance. This suggests effective implementation strategies and strong instructional support. The highest-rated aspect, with a mean of 4.65, emphasizes that students were ensured to develop a strong foundation in proper movement and technique. This is achieved by systematically teaching the correct form for each exercise, minimizing the risk of injuries, and enhancing overall performance. They are provided with guided demonstration and personalized feedback, allowing students to progress at a safe and effective pace.

The lowest-rated aspect, with a mean of 4.42 and an interpretation of very satisfactory, indicates that the students have not fully explored the options to choose an exercise that best suits their fitness level, which reflects on their confidence to make their own exercise program. This suggests that students may lack awareness of available exercise modifications, feel uncertain about selecting the right options, or require more structured guidance to build confidence in designing their workouts. This highlights two key areas: The implementation of regressive exercises in the PATHFIT Program provides students with the flexibility to select exercise modifications that suit their current fitness levels. This personalized approach helps build their confidence, ensuring they progress at a comfortable and sustainable pace while developing proper technique and strength.

Also as part of the PATHFIT Program's implementation of regressive exercises, a comprehensive fitness assessment is conducted beforehand to evaluate each student's current physical condition. This assessment ensures that exercises are tailored to their individual needs, promoting safe participation, gradual progress, and effective skill development. While these aspects received a very satisfactory rating, their importance in ensuring a tailored and effective fitness program cannot be overlooked. These findings highlight the importance of structured modifications in enhancing student confidence, preventing injuries, and ensuring progressive fitness development.

During the implementation of regressive exercises in the PATHFit program, several key observations were made regarding student performance, engagement, and overall effectiveness of the program. Students demonstrated a strong foundation in movement and technique, benefiting from structured guidance, demonstrations, and personalized feedback. They showed improved confidence and execution, allowing for safer participation and steady progress. However, some students faced challenges in adjusting to modified exercises. While the flexibility in exercise selection helped accommodate different fitness levels, additional support and motivation were

needed for some to fully engage. The pre-assessment effectively identified individual needs, but continuous adjustments remain essential.

A study conducted by Petrušič and Novak (2024) revealed significant improvements in students' physical fitness, emphasizing the benefits of incorporating student choice in exercise programs. Supporting this, Pérez-Ramírez et al. (2024) found that structured exercise programs positively impact both physical and cognitive outcomes. Their study highlights the importance of pre-assessments in tailoring fitness programs to individual needs, ensuring personalized and monitored exercise regimens in schools. By adapting exercises to students' fitness levels, schools can foster safer participation, steady progress, and improved overall well-being.

In summary, the findings emphasize the necessity of structured regressive exercise programs that account for individual fitness levels through guided modifications and assessments. A well-designed approach not only enhances physical performance but also builds student confidence, prevents injuries, and promotes sustainable progress. Schools implementing such programs contribute to students' holistic development by reinforcing both physical strength and cognitive growth.

Level of implementation of the PATHFit program in terms of PROGRESSIVE exercise

The overall weighted mean of 4.50 signifies the effective implementation of the program, as it reflects students' strong engagement, proper execution, and adaptability in progressive exercises. This indicates that the PATHFit Program successfully provides structured and well-designed activities that support students in gradually improving their fitness levels while maintaining proper form and technique. This suggests that the implementation of these exercises is effective, supported by proper instruction and student motivation. The item with the highest mean score is item number 5 with a mean score of 4.63 which indicates that recovery and rest days are incorporated to reinforce the progression of the training regimen which, as a side note, an essential component of progressive exercise framework. These strategically placed intervals allow the body time to recover and repair, preventing overtraining and reducing the risk of injury. Alternating intense training with rest promotes gradual progress, improving strength, endurance, and fitness while supporting long-term performance and recovery.

The lowest rated aspect, with a mean of 4.34 or very satisfactory, emphasizes that students assessment on the given exercises mostly started with high intensity, this is reflective in their daily activities or influenced by not engaging in physical fitness activities. This gradual progression ensures that participants can build strength and endurance at a sustainable pace, allowing for continual improvement while minimizing the risk of burnout or injury. The structured approach allows the body to adapt to increasing challenges, optimizing both short-term performance and long-term fitness gains. The results indicate that PATHFit activities effectively enhance students' physical performance in progressive exercises. The emphasis on recovery supports sustainable training, while gradual intensity increases ensure to steady improvement.

During the implementation of progressive exercises, it was observed that students were highly engaged and performed well, demonstrating proper technique and adaptability. The incorporation of recovery and rest days proved essential in allowing students to recover and

progress without the risk of overtraining. However, there was a slight need for refinement in how lower-intensity exercises were introduced, as this could improve the overall transition as intensity gradually increased. Overall, the structure of the exercises effectively supported students' progress, ensuring steady improvement while minimizing injury risks.

A study conducted by Hagum et al. (2023) underscores the critical role of tailored training programs in effectively reducing injury rates. Their research highlights the importance of customizing exercise regimens to meet individual needs, while also emphasizing the necessity of progressively increasing intensity to optimize both safety and efficacy. Furthermore, research by Bell et al. (2023) delves into the impact of progressive overload on cardiorespiratory fitness. Their findings demonstrated that participants who underwent progressive overload experienced notable improvements in cardiorespiratory endurance, with a higher proportion achieving positive fitness outcomes compared to those maintaining a constant intensity. These findings collectively reinforce the benefits of personalized and progressively intensified training approaches in optimizing physical performance and minimizing injury risks.

The implementation of progressive exercises in the PATHFit program has been effective, with students showing strong engagement and proper execution. The inclusion of recovery days is crucial for preventing overtraining and supporting continuous progress. While the introduction of lower-intensity exercises could be improved for smoother transitions, the overall approach effectively promotes strength, endurance, and fitness. Research supports the benefits of progressively increasing intensity, reinforcing the program's success in enhancing physical performance and minimizing injury risks.

Level of implementation of the PATHFit program in terms of locomotor skills

The result shows that the level of implementation in locomotor skills is excellent with an overall mean score of 4.56. It suggests that the program is performing exceptionally well in developing and improving locomotor skills.

The aspect receiving the highest rating, with a mean score of 4.74, highlights the effective and gradual introduction of more challenging locomotor skills, such as running, ensuring participants progressively develop their movement abilities with increasing difficulty. This approach not only fosters skill development but also helps prevent injury by allowing the body to adapt to more complex movement at a manageable pace.

The aspect with the lowest rating, scoring a mean of 4.34, highlights two key areas: the incorporation of directional movements to improve students' agility and coordination, particularly forward movements, and the meaningful integration of locomotor skills with other motor skills, such as manipulative skills. The lower score for forward movements suggests that these exercises were not implemented as consistently or given the same emphasis as backward and sideward movements. This is because moving forward is a natural and instinctive action, often requiring less conscious effort and structured practice. In contrast, backward and sideward movements demand greater coordination and control, making them a stronger focus in training sessions. As a result, forward movements may have received less structured instruction and assessment, leading to a lower perceived level of implementation compared to other directional exercises. Similarly, the

low score for integrating locomotor skills with other motor skills suggests that the program have emphasized these skills separately rather than in combination. Students haven't fully learned how to combine or use different skills together, they find it hard to apply those skills in real-life situations. Without consistent practice in combining skills, students may not have fully developed coordination and adaptability, resulting in a perception that this aspect of the program was not effectively implemented. While these elements are important for developing well-rounded movement capabilities, further refinement in their implementation could offer more opportunities for students to connect and apply these skills in dynamic and real-world contexts. Strengthening this integration would help improve the overall fluidity and functionality of students' motor abilities. The findings indicate that PATHFit activities effectively enhance locomotor skills, with gradual skill progression supporting student development. Emphasizing agility, coordination, and skill integration fosters overall motor proficiency.

During the implementation of locomotor skills, it was observed that students progressed steadily in more challenging movements like running, with gradual skills development reducing the risk of injury. However, there were missed opportunities to better integrate locomotor skills with other motor skills, such as manipulative skills. Enhancing this integration could improve overall coordination and real-life application of these abilities.

A study by Plazibat et al. (2021) explored the effects of multi-year physical exercise programs on students' motor skills, revealing that a one-year multilateral exercise program significantly improved motor skills, with continued participation in subsequent years helping to sustain and build upon these gains. This underscores the importance of structured, long-term exercise regimens in fostering a balance between locomotor and manipulative skills. Further supporting these findings, Wang and Zhou (2024) investigated the impact of functional training focused on motor development, showing substantial improvements in students' gross motor skills, physical fitness, and sensory integration (coordination). Their results highlight the effectiveness of targeted, specialized training in promoting overall physical development and enhancing multiple facets of motor proficiency. Together, these studies emphasize the value of consistent, focused exercise programs that progressively develop key motor skills, contributing to well-rounded physical growth and coordination in students.

Overall, The PATHFit program effectively develops locomotor skills through gradual progression and challenging movements, promoting skill development and injury prevention. However, there is room for improvement in integrating directional movements and combining locomotor skills with other motor skills for better real-world application. Enhancing this integration will further improve overall coordination and motor proficiency.

Level of implementation of the PATHFit program in terms of non-locomotor skills

The result in level of implementation in non-locomotor skills is excellent with an overall mean score of 4.53. This indicates that non locomotor exercises are well implemented that made the program highly effective in developing non-locomotor skills such as balance, stability, and flexibility.

The highest-rated aspect, with a mean score of 4.65, highlights the effective incorporation of a comprehensive series of non-locomotor exercises, such as stretching routines, into the graded physical fitness regimen. This demonstrates the program's success in providing well-structured activities that promote flexibility, body control, and overall physical readiness.

The lowest-rated aspect, with a mean score of 4.41, categorized as very satisfactory, focuses on the creation of a customizable exercise plan, designed to allow students to progress at their own pace and achieve their personal fitness objectives. This means that the design-your-own exercise plan is seen as functional but has limitations in the implementation. One limitation of the plan is the lack of time available for students to fully achieve their customized exercise goals. As a result, this time constraint may reduce the effectiveness of the plan in helping students meet their long-term fitness objectives. This aspect reflects the program's attempt to cater to individual needs, although further refinement in its implementation could enhance its effectiveness in supporting personalized fitness development.

Throughout the program, students demonstrated improved balance, flexibility, and body control through structured exercises like stretching routines. The program effectively supported overall physical readiness. However, while the guided exercise plans allowed for personalized progress, some students required additional support in designing and following their routines. Enhancing guidance in personalized fitness planning could further optimize individual development.

Dimarucot et al. (2024) conducted a quasi-experimental study on tertiary students in the PATHFit course, implementing a 12-week fitness program with individualized exercise regimens. The study highlighted significant improvements in physical fitness and emphasized the importance of safety guidelines in preventing injuries. Similarly, Yan et al. (2025) found that balance and strength training enhanced dynamic balance and reduced lower extremity injury risk in college students. These findings align with the results of this study, which highlight the effectiveness of structured non-locomotor exercises in improving flexibility, stability, and overall physical readiness. The emphasis on personalized training and safety measures supports the observed success of the PATHFit program in fostering progressive skill development and injury prevention.

Overall, the results show that PATHFit program effectively enhances non-locomotor skills by improving balance, flexibility, and body control through structured exercises. While personalized fitness plans support individual progress, some students may benefit from additional guidance. Overall, the program successfully promotes physical readiness, skill development, and injury prevention.

Level of implementation of the PATHFit program in terms of healthy eating habits

The result shows that the level of implementation in healthy eating habits is very satisfactory with an overall mean score of 4.43. This suggests that while students are generally adopting healthy eating habits, there is still room for improvement in fully integrating these habits into their routines. The result highlights a need for continued emphasis on nutrition education and support to further enhance healthy eating behaviors.

The highest-rated aspect, with a mean score of 4.58, reflects the excellent implementation of personalized meal planning and preparation sessions. These sessions are designed to assist students in creating meal plans tailored to their individual fitness levels and goals, ensuring that their nutrition aligns with their overall health and performance objectives.

The lowest-rated aspect, with a mean score of 4.36, indicates a very satisfactory implementation in two key areas: conducting regular check-ins to monitor students' progress and adjust meal plans as necessary, and organizing symposiums to educate students on the importance of proper nutrition and nutrient intake. These efforts are essential but may require further enhancement to ensure consistent support and deeper understanding of nutritional needs.

During the implementation of healthy eating habits, it was clear that students were fully engaged in personalized meal planning, with many showing a strong commitment to aligning their nutrition with their fitness goals. The sessions seemed to provide valuable guidance in helping them design meal plans suited to their needs. However, I noticed that while regular check-ins and educational symposiums were being conducted, there appeared to be room for more consistent follow-up and deeper discussions on nutrition. Some students might benefit from additional support in adjusting their meal plans as they progress. Overall, the program is helping students adopt healthier eating habits, but providing more personalized feedback and expanding the educational component could further strengthen their understanding and long-term adherence to healthy eating practices.

A study by Wongprawmas et al. (2022) highlighted that disseminating information through seminars and courses is an effective strategy for promoting healthy eating habits. In a similar vein, Assilian et al. (2024) reviewed interventions aimed at improving dietary quality among college students, revealing that programs incorporating participatory methods, such as personalized meal planning and peer support, yielded significantly better dietary outcomes. This finding aligns with the results of the present study, where personalized meal planning, support groups, and educational sessions were instrumental in enhancing students' healthy eating habits. Both studies underscore the importance of continuous support and tailored interventions, such as regular check-ins, to ensure the sustainability of healthy eating behaviors and long-term dietary success.

Overall, the PATHFit program has effectively promoted healthy eating habits among students, with personalized meal planning and support sessions playing a central role. While progress is evident, there is room for improvement in providing consistent follow-up and deeper educational support. Strengthening these areas will further enhance the sustainability of healthy eating behaviors and overall student well-being.

Pretest and posttest physical fitness performance of the students

Body mass index

The pre-test result reveal that the majority of students were classified as underweight, accounting for 66.3, while only 20.2% fell within the normal BMI range. A smaller proportion, 8.7%, were categorized as overweight, and 4.8 were classified as obese. these results indicate a significant

prevalence of underweight students, suggesting a potential need for interventions focused in improving overall nutrition and body composition for better health outcomes.

The post-test results demonstrate notable improvement, with 60.6% of students now falling within the normal BMI range, a significant increase from the pre-test. The percentage of underweight students decreased to 19.2%. Meanwhile, the proportion of overweight students rose to 16.3%, which could be attributed to students gaining muscle mass through strength training or other fitness activities, as muscle weighs more than fat. As a result, some students may have shifted into the overweight category despite positive changes in body composition. Obesity cases slightly declined to 3.8%. These changes indicate positive progress in the students' physical fitness, with a shift toward healthier body compositions and a reduction in extreme weight categories.

It is observed that some of the students who were previously underweight began to show improving and consistent performance in exercise, leading to a reduction in underweight cases. Although a small portion remained obese, these students demonstrated better participation, indicating potential for further progress with continued support and guidance. Overall, the results suggest that the physical activities were effective in improving BMI, as reflected in the significant shift toward the normal range.

The study by Li et al. (2022) revealed that both underweight and overweight/obese students had lower Physical Fitness Index (PFI) scores compared to those with a normal BMI, emphasizing the importance of tailoring physical fitness programs to address the unique needs of different BMI categories. This finding aligns with the results of this study, where the post-test showed a shift in students' BMI categories, with improvements in normal weight students but also an increase in those categorized as overweight. Conversely, Nowreen et al. (2023) explored the relationship between BMI and physical fitness and found that despite a majority of students showing average to excellent physical fitness, 41.3% were overweight or obese. This suggests that BMI alone may not fully reflect a student's true physical fitness, and comprehensive assessments that consider both BMI and other fitness indicators are necessary for a more accurate evaluation. These studies support the need for a holistic approach to physical fitness, which includes not only BMI measurements but also ongoing assessments and tailored interventions, as seen in the results of your study.

The comparison of pre-test and post-test BMI results indicates significant progress in students' physical fitness, with a noticeable shift toward healthier body compositions. The reduction in underweight cases and the increase in students falling within the normal BMI range highlight the effectiveness of the fitness program. However, the rise in overweight students suggests potential gains in muscle mass, emphasizing the need for continued, comprehensive fitness assessments to ensure balanced improvements in body composition. Overall, the program contributed to positive changes in BMI, reflecting the benefits of targeted physical fitness activities.

Push-up (strength)

In the pre-test, 52.9% of students were unable to perform a single push-up, indicating a poor level of upper body strength. Additionally, none of the students reached the highest strength standard

of 33 or more repetitions. This highlights the need for targeted training programs to improve muscular endurance and overall fitness levels.

After the physical activities, the post-test results showed improvement, with the percentage of students unable to perform a push-up decreasing to 35.6%. However, none achieved the excellence standard, remaining at 0%. Additionally, 34.6% still needed improvement, 18.3% reached a fair level, 6.7% performed well, and 4.8% attained a very good rating. This indicates progress in upper body strength and endurance, but further training is needed to help more students reach higher performance levels.

Based from the observations, many students initially lacked upper-body strength and struggled with proper push-up form. However, consistent practice, targeted exercises, and guidance led to noticeable improvements, with more students progressing to higher performance categories. All things considered, the data demonstrate the effectiveness of the physical activities in enhancing upper-body strength.

Recent studies emphasize the importance of push-up exercises in college fitness programs, particularly in developing upper body strength and overall physical health. Santiago and Ibarra (2023) assessed first-year college students in the Philippines and found that 84.6% failed the push-up test, demonstrating a widespread deficiency in muscular endurance and the need for structured strength-training programs. Similarly, Coogan et al. (2021) established normative data for push-up performance in individuals aged 20–29, providing a benchmark for evaluating and improving upper body fitness. These findings align with the results of this study, where the majority of students initially struggled with push-ups, reflecting low upper-body strength. However, post-test results showed improvements, confirming that consistent physical activity positively impacts strength development. This further supports the need for integrating targeted training programs to enhance students' muscular endurance and overall fitness levels.

The results show that most students initially had poor upper body strength, with many unable to perform a push-up. However, after physical activities, there was a noticeable improvement in performance, with fewer students in the lowest category and more progressing to higher levels. While no one reached the excellence standard, the findings highlight the effectiveness of structured training in enhancing muscular endurance and the need for continued strength development.

Plank (strength)

In the pre-test, 34.6% of students demonstrated excellent performance by holding the plank for 51 seconds or more, indicating strong physical endurance. On the other hand, 3.8% of students showed the lowest performance, managing only 1–15 seconds, suggesting a need for improvement in core strength and endurance. This distribution highlights varying levels of fitness among students, with a significant portion excelling while a small group requires further development.

In the post-test, the percentage of students achieving excellent performance rose to 68.3%, while those in need of improvement decreased to just 1.9%. This significant shift indicates a

remarkable improvement in core strength and endurance among the students, reflecting the effectiveness of the program in enhancing physical fitness and overall plank performance.

During the activity, it was observed that students initially struggling to maintain proper form and endurance showed steady improvement through consistent practice and guidance on posture and breathing. Altogether, this progression highlights the effectiveness of the physical fitness program in boosting core strength and overall performance levels in plank exercise.

Recent studies have demonstrated the effectiveness of plank exercises in enhancing various aspects of physical fitness. A randomized controlled trial by Park et al. (2024) investigated the impact of plank exercises on body composition and respiratory function in university students, revealing significant improvements in abdominal muscle strength and respiratory capacity. These findings align with the results of this study, which showed marked improvements in students' plank performance, indicating enhanced core strength and endurance. Furthermore, an article by Roze (2025) emphasized the crucial role of core strengthening exercises, such as planks, in improving overall body stability and promoting pain-free movement. This supports the observed progress in students' physical readiness, as the PATHFit program demonstrated significant improvements in core strength, stability, and overall fitness. The integration of plank exercises in the program aligns with these studies, highlighting their role in enhancing performance, supporting daily activities, and contributing to long-term athletic development.

The pre-test and post-test results of the plank performance clearly demonstrate significant improvement in core strength and endurance among students. The increase in the number of students achieving excellent performance reflects the effectiveness of the physical fitness program in enhancing core stability and overall muscular endurance. This improvement highlights the program's success in fostering physical readiness and supporting students' long-term fitness development.

Zipper test – right side & left side (flexibility)

In the pre-test, 35.6% of students achieved excellent performance, overlapping by 6 cm or more, while no students were in the "needs improvement" category, only touching their fingers. In the post-test, 43.3% of students maintained excellent performance, while only 2.9% were categorized as needing improvement. This shift indicates significant progress in right-side flexibility, particularly for students who initially struggled.

Table 3.5 displays students' left-side flexibility performance, as measured by the zipper test. In the pre-test, 36.5% of students achieved excellent performance, with fingers overlapping by 6 cm or more, while 1.0% fell into the "needs improvement" category, just touching their fingers. In the post-test, the percentage of students achieving excellent performance increased to 48.1%, while those needing improvement decreased to 2.9%. This indicates a significant improvement in students' left-side flexibility, with more students reaching higher performance levels and fewer struggling to achieve the desired range.

During the conduct of these activities, it was observed that students with significant gaps or minimal overlap steadily improved by practicing targeted stretching routines and maintaining

proper posture. Those who began in lower performance levels were often able to progress to Fair, Good, or even higher categories over time. Overall, both tables demonstrate that the fitness program effectively enhanced the students' flexibility, as seen in the reduction of lower performance levels and the increase or maintenance of higher performance levels on both the right and left sides. This improvement underscores the importance of consistent practice and proper technique in developing better range of motion.

Incorporating shoulder flexibility assessments, such as the Zipper Test, into physical fitness programs is supported by recent research highlighting the benefits of shoulder mobility exercises. A randomized controlled trial by Gharisia et al. (2021) demonstrated that a posterior shoulder stretching program significantly increased internal rotation and horizontal adduction range of motion in university-level athletes. Similarly, López-Laval et al. (2022) found that targeted shoulder mobility and strength programs effectively improved shoulder flexibility and strength. These findings align with the results of this study, which showed notable improvements in students' shoulder flexibility, particularly on both the right and left sides, as indicated by the Zipper Test. The observed increase in performance levels reinforces the importance of integrating flexibility exercises into structured fitness programs to enhance range of motion, support athletic performance, and reduce the risk of musculoskeletal issues.

Sit and reach (flexibility)

In the pre-test, 51% of students achieved a very good flexibility level, reaching between 46 and 60.9 cm, while 1% fell under the needs improvement category with a reach of 0 to 15.9 cm. These results indicate that most students demonstrated adequate flexibility, though some required focused training to enhance their range of motion.

The post-test results in Table 3.6 show a notable improvement in students' flexibility. After the fitness program, 51.9% of students advanced to the excellent category, demonstrating significant progress. However, 1% remained in the needs improvement category, indicating that while most students enhanced their flexibility, some continued to face challenges despite targeted interventions.

Teachers observed increased student engagement in flexibility exercises, particularly dynamic and static stretching. Regular warm-ups and cool-downs contributed to improved range of motion. Some students initially struggled but progressed with guidance and individualized interventions, such as modified stretching techniques. The program fostered a positive attitude toward fitness and injury prevention.

Integrating the sit-and-reach test into physical fitness programs is supported by recent research emphasizing its role in assessing and enhancing flexibility among university students. A study by Fatima et al. (2023) compared physical performance measures, including flexibility, between school and university students. The findings indicated that university students exhibited better results in the sit-and-reach test, highlighting the importance of targeted flexibility assessments and interventions at the tertiary level. Moreover, Reguero et al. (2023) investigated the knowledge and practice of stretching among university students. The study revealed that students had limited knowledge and engagement in stretching exercises, underscoring the need for

incorporating flexibility assessments like the sit-and-reach test to promote awareness and improvement in flexibility.

Overall, it demonstrates improvement to students' physical performance in flexibility through sit and reach. The increase in students achieving excellent flexibility levels highlights the program's success. However, the continued presence of students in the needs improvement category suggests that additional targeted interventions are necessary to ensure all students benefit from flexibility training.

Juggling (coordination)

The pre-test results showed that most students struggled with coordination and motor control, highlighting the challenge of juggling. However, the post-test revealed noticeable improvement, with some students advancing in skill level. This suggests that targeted practice and drills effectively enhance coordination, motor skills, and overall physical fitness.

Hexagon agility test (agility)

The pre-test results indicate that 54.8% of students completed the test within 6-10 seconds, classifying their performance as very good, while 1.0% took 16-20 seconds, indicating a need for improvement. These findings suggest that while the majority of students demonstrated a solid foundation in agility, a small percentage struggled with speed, coordination, and movement efficiency.

The post-test results reflect significant improvements in overall agility. The number of students completing the test in 5 seconds or below increased to 49.0%. Additionally, the percentage of students finishing within 6-10 seconds decreased to 44.2%, while those taking 11-15 seconds dropped from 42.3% to 6.7%. These results indicate that the fitness program was highly effective in enhancing agility, as a greater number of students achieved faster completion times. However, some students still faced challenges in maintaining speed and precision, suggesting that factors such as fatigue, inconsistent participation, and insufficient exercise intensity may have limited their improvement.

During the fitness program, the teacher observed that high-performing students demonstrated quick reflexes and balance, while lower-performing students hesitated during transitions and struggled to maintain speed. Fatigue and inconsistent practice affected some students, limiting their ability to improve. Although agility drills were provided, not all students showed progress, as some lacked engagement or struggled with endurance.

Research by Santiago and Ibarra (2023) confirmed the Hexagon Agility Test as an effective measure of agility among college students, aligning with the study's post-test results that showed enhanced performance. Furthermore, the study by Alpe and Alforja (2021) highlighted the effectiveness of a physical literacy program in improving agility using the Hexagon Agility Test, similar to the improvements seen in the current study. Both studies demonstrate how targeted interventions can enhance agility, suggesting that the fitness program in the current study contributed to better agility performance among students.

Overall, the findings confirm that structured agility training positively impacted students' performance. The decrease in students requiring improvement and the increase in those achieving very good and excellent results highlight the effectiveness of the program.

Standing long jump (power)

The pre-test results show that 84.6% of students scored between 151-200 centimeters, categorizing their performance as very good. However, 1.0% scored between 55-100 centimeters, indicating a need for improvement, while another 1.0% scored between 101-125 centimeters, classified as fair. This suggests that while most students demonstrated strong lower body power, a small portion lacked sufficient strength and explosiveness.

The post-test results reveal a shift in performance. The percentage of students scoring between 151-200 centimeters decreased to 53.8%, while those scoring 201 centimeters and above increased from 1.9% to 11.5%, indicating significant improvement. Additionally, students scoring between 55-100 centimeters dropped to zero, reflecting progress among lower-performing individuals. However, the percentage of students scoring between 101-125 centimeters rose to 12.5%, and those in the 126-150 centimeter range increased from 11.5% to 22.2%.

During the fitness program, teachers observed that students who initially struggled lacked confidence and power in their jumps. Those who actively participated in physical activities showed noticeable improvement. These results indicate that while the fitness program was effective for many students, some struggled to sustain their progress. The increase in top performers highlights the program's impact, but the rise in mid-range scores suggests that continued training and targeted interventions are needed to support overall development.

The study by Pang et al. (2022) indicates that the standing long jump is an effective measure of lower limb explosive power, which is key to overall physical fitness. This relates to this study, where improvements in long jump performance reflect the success of the fitness program in enhancing lower body power. Similarly, Nakai et al. (2024) found that trunk and upper limb strength are crucial for long jump performance, suggesting that a well-rounded training program, like the one in the study, likely contributed to the observed improvements by targeting strength and power.

The results of the standing long jump test show significant improvements in students' lower body power after the fitness program. While many students initially performed well, those who struggled made noticeable progress, and top performers saw enhanced results. However, some students still faced challenges in sustaining their progress, highlighting the need for continued training and targeted support to further develop power and explosiveness.

Stork balance stand test (balance)

The pre-test results show that 66.3% of students scored between 55-100 centimeters, indicating a need for improvement. Additionally, no students scored 201 centimeters and above, highlighting a general lack of balance and stability before the physical activities. This suggests that many students struggled with core strength, coordination, and body control.

The post-test results reflect this progress, showing a significant shift in student performance compared to the pre-test, with improvements in both the number of students requiring improvement and those achieving higher scores. The percentage of students needing improvement decreased to 51.9%, while the percentage of students scoring 201 centimeters and above increased to 1.9%, categorizing their performance as excellent. This indicates that many students who initially struggled managed to improve, shifting their scores from needs improvement to fair, good, and even excellent.

During the fitness program, it is observed that students initially found it challenging to maintain their balance for extended periods. However, with consistent practice and targeted exercises focusing on core engagement and postural control, gradual improvements were seen.

A study by Abhilash P.V. et al. (2021) found a significant positive correlation between core muscle endurance and static balance, suggesting that improved core strength enhances balance. This relates to the findings of this study as the students showed improvement in balance, which could be attributed to the core engagement and postural control exercises included in the fitness program.

Similarly, research by Yaprak Y. and Dellekoğlu B. (2021) highlighted weak correlations between static and dynamic balance, emphasizing the need for targeted training to improve both types of balance. This is reflected in the study's results, where the improvements in balance were primarily seen in static balance tests, suggesting that separate, focused training is essential for each type of balance.

Overall, the findings suggest that the fitness program effectively enhanced students' balance and stability. While some students made significant improvements, others continued to struggle, emphasizing the need for sustained training and individualized interventions to further develop balance skills.

Stick drop test (balance)

The pre-test results indicate that 34.6% of students scored between 11-19 centimeters, classifying their performance as good. In contrast, the lowest percentage of students, at 1.9%, scored between 27-30 centimeters, indicating a need for improvement.

The post-test results show a shift in performance. The percentage of students scoring between 5-10 centimeters increased to 35.6%, reflecting very good performance. However, the percentage of students scoring between 0-4 centimeters, classified as excellent, decreased from 15.5% to 0%, suggesting that some students who previously performed at an excellent level declined to very good. On the other hand, the percentage of students who performed poorly dropped from 3.8% to 0%, while those needing improvement increased to 5.8%. These results indicate that while many students improved their reaction time, others experienced a decline in performance. The decrease in students achieving excellent scores suggests that some may have struggled with consistency or adaptability in their reaction skills.

During the fitness program, it has been observed that students initially struggled with maintaining focus and reacting quickly. Through repeated practice and exercises designed to

enhance reflexes, such as catching drills and rapid response activities, some students demonstrated noticeable improvements. However, others found it challenging to sustain their reaction time under consistent conditions.

The Stick Drop Test is a valuable tool for assessing reaction time, a key component of cognitive and motor function. A study by Dominado (2023) highlighted its effectiveness in measuring reaction time among senior high school learners. This relates to your study's findings, as both emphasize how consistent practice and targeted exercises can improve reaction times, confirming the test's role in assessing and enhancing this physical fitness component.

Additionally, a study by Harper et al. (2022) examined the reliability of a reaction time measurement tool similar to the Stick Drop Test among healthy young adults, demonstrating its effectiveness in assessing reaction time under various conditions. This relates to your study's findings by supporting the reliability of the Stick Drop Test in measuring reaction time, confirming its value in assessing improvements in students' reaction time through repeated practice and targeted exercises.

The results show overall improvement in students' reaction time, with many advancing in performance, though some struggled with consistency. The program was effective, but continued practice is needed for sustained improvement.

50 meter sprint (speed)

The pre-test results reveal that 80.8% of students completed the sprint in more than 8.2 seconds, indicating a need for improvement. Additionally, none of the students finished in less than 4.5 seconds, meaning no one was classified as excellent.

The post-test results demonstrate significant improvement. The percentage of students needing improvement, with times exceeding 8.2 seconds, decreased to 41.3%. Meanwhile, 1.9% of students managed to complete the sprint in less than 4.5 seconds, classifying them as excellent. Furthermore, the percentage of students who completed the sprint in 7.1 to 8.1 seconds, categorized as fair, increased from 10.5% to 15.4%. Those who finished in 6.0 to 7.0 seconds, classified as good, increased from 5.8% to 24.0%. Additionally, students who completed the sprint in 4.6 to 5.9 seconds, classified as very good, rose from 2.9% to 17.4%. These results indicate that the fitness program was effective in improving students' sprinting performance.

During the fitness program, teachers observed that many students initially struggled with speed and acceleration, often due to a lack of proper running techniques and endurance. Through structured sprint drills, agility exercises, and endurance training, students gradually improved their form, stride efficiency, and overall speed.

Recent studies emphasize the effectiveness of sprint training in improving speed performance. Huang et al. (2025) investigated the impact of sprint interval training on university students, finding significant reductions in 50-meter sprint times after just six weeks, with times improving from an average of 7.32 seconds to 6.98 seconds. This aligns with the study's findings, where students showed a noticeable improvement in sprint times following structured sprint drills. Additionally, Brini et al. (2020) examined the effects of a 12-week change-of-direction sprint

training program on professional basketball players, demonstrating improvements in their ability to perform quick sprints with directional changes. This supports the idea that incorporating sprint and agility drills into training regimens can enhance speed and overall athletic performance, as observed in your study's post-test results.

Overall, the significant decrease in students needing improvement and the increase in those achieving very good to excellent classifications highlight the positive impact of structured training. However, the presence of students still struggling with speed suggests the need for continued reinforcement of sprint techniques and endurance training to further enhance their performance.

Test of significant relationship between level of implementation of PATHFit activities and posttest performance of the students

Data shows the result of the correlation analysis between the level of implementation of the PATHFIT activities and the posttest performance of the students. Results show that Progressive exercise (r= -.193; p=.050) shows a significant relationship with the posttest performance of the students. Thus, the null hypothesis is rejected with respect to these variables. The negative sign of the correlation value indicates that those who do better in the implementation of the progressive exercises tend to perform lower in the posttest. This outcome may be attributed to factors such as fatigue or overtraining, where excessive physical exertion could have led to decreased performance. Additionally, improper execution or overexertion during progressive exercises might have caused strain or exhaustion, negatively affecting posttest results. Furthermore, external factors such as diet, rest, or individual differences could have influenced the results.

Further analysis shows that all other PATHFit activities did not show significant relationship with the posttest performance of the students. While there are positive correlation values indicating that those who did better in these activities have higher p-values that are beyond the .05 level of significance set for analysis. This suggests that any observed differences may have occurred by chance rather than due to a true effect. One possible explanation is that the effect of these activities on posttest performance is weak or inconsistent, meaning other factors may play a more significant role in determining outcomes. Additionally, individual differences such as fitness levels, training intensity, motivation, sleep, and nutrition could have influenced the results, leading to variations that made it difficult to establish a strong correlation. It is observed that while students who actively engage in PATHFIT activities often demonstrate increased enthusiasm and effort, their performance on the posttest does not always reflect these improvements. Some students, despite consistent participation, struggle with form, execution, or endurance, which may affect their actual fitness outcomes. Additionally, teachers have observed that factors such as fatigue, stress, and lack of proper recovery time may hinder students from performing at their best during the posttest. Some students also appear to focus more on participation rather than technique, leading to minimal measurable improvement. These firsthand observations align with the statistical findings, reinforcing the idea that while engagement in PATHFIT activities is beneficial, its direct impact on posttest results may not always be evident or significant.

In opposition to this, Velez (2022) revealed the significant improvements in students' performance across various fitness components, including muscular strength (push-ups), muscular

endurance (planking), flexibility (sit and reach), and cardiovascular endurance (3-step test), after the implementation of explicit instructional methods. These results suggest that clear and direct teaching strategies within the PATHFit program can effectively enhance students' physical fitness.

Additionally, Dimarucot et al. (2024) study found a significant improvement in physical fitness after a 12-week PATHFit program, indicating a positive relationship between its implementation and post-test results. However, the effect sizes were small to medium, with female participants showing lower improvements. This suggests that while PATHFit contributes to fitness gains, the strength of this correlation may depend on factors like program engagement and motivation. The study recommends incorporating gamification and health motivation to enhance effectiveness, highlighting the need for tailored strategies to maximize fitness outcomes.

Test of significant difference between the pretest and posttest performance of the students

The result of the t-test between the pretest and posttest performance of the students shows that the pretest and posttest performance of the students are significantly different in the tests on Push up (Z=5.586; p=.000); Plank (Z= 3.30; p =.001); Zipper-Right Gap/Overlap test (Z= 4.711; p=.000); Zipper-Left Gap/Overlap test (Z=4.829; p=.000); Sit and Reach test (Z=4.794; p=.000); Juggling test (Z= 3.127; p=.002); 50 m Sprint (Z=6.152; p=.000); Stand Long Jump test (Z= 2.527; p=.011); and Stork Balance Stand Test (Z=4.943; p=.000). This led to the rejection of the null hypothesis with respect to these variables. This implies that the activities done in the PATHFit class had been effective in improving the performance of the students along these tests.

The significant improvement in students' performance across all tested fitness components suggest that the PATHFit activities were highly effective. It was observed that during the pre-test, students vary levels of fitness, with some students struggling with endurance, flexibility, and balance. Many showed difficulty in maintaining form during push-ups and planks, while others exhibited limited flexibility in sit-and-reach and zipper tests. However, during the post-test, noticeable improvements were observed not only in scores but also in students' confidence, technique, and overall engagement. The enhanced endurance in push-ups and planks, better coordination in juggling and sprinting, and greater control in balance tests was also noted. These changes highlight the positive impact of structured training and consistent practice. The results emphasize the importance of well-planned physical activities in developing students' fitness, reinforcing the idea that targeted exercises, when combined with motivation and proper guidance, lead to measurable progress.

In support to this, Malones (2024) suggests that integrating PATHFit standards with the university's educational approach will lead to enhanced kinesthetic intelligence, improved physical fitness, and increased health awareness among students. These outcomes align with the objectives of the Global Action Plan for Physical Activity (GAPPA), aiming to reduce physical inactivity and promote healthier lifestyles. Moreover, Dimarucot et al. (2024) proposed that structured physical activity programs like PATHFit can effectively enhance various components of physical fitness among tertiary students.

The data gathered on Body mass Index, Hexagon Agillity Test and Stick Drop test did not warrant significant difference in the pretest and posttest performances of the students. This is

evidenced y the p-values that are beyond the .05 level of significance set for analysis. Thus, the null hypothesis is not rejected with respect to these variables.

Observations during the activities revealed several factors affecting the results. Despite participating in physical exercises, students showed minimal changes in BMI, likely due to the short duration of the program and variations in diet and metabolism. In the Hexagon Agility Test, many students initially struggled with quick directional changes, often hesitating or stepping outside the hexagon, suggesting the need for more agility drills. Similarly, in the Stick Drop Test, several students displayed inconsistent reaction times, with noticeable delays in catching the stick, indicating that reaction speed requires more targeted training. While students demonstrated increased confidence and engagement over time, agility and reaction time improvements require longer and more specific training to achieve significant results.

While short-term physical activity programs may lead to some changes in performance scores across various activities, they are unlikely to produce significant improvements in key metrics such as body mass index (BMI), agility (as measured by time trials or obstacle course performance), and reaction time (as assessed by response speed in cognitive or physical tasks). The observed improvements in these areas were not statistically significant, indicating that more prolonged or intensive interventions may be necessary to achieve substantial and measurable enhancements in BMI, agility, and reaction time (Nulhasan & Mazalan, 2024).

The findings of the study are consistent with Kolb's experiential learning theory, as students participated in hands-on activities (such as push-ups and planks) and reflected on their progress, resulting in enhanced fitness levels. This active learning process allowed students to develop physical skills through the cycle of experience, reflection, conceptualization, and experimentation. Additionally, Thorndike and Woodworth's Transfer of Learning theory illustrates how improvements in various fitness components, such as endurance gained from push-ups, transferred to other activities like sprinting and coordination. This supports the notion that practicing in one area can boost performance in related tasks. Furthermore, Ryan and Deci's self-determination theory suggests that students' increased confidence, engagement, and performance gains are linked to the fulfillment of their autonomy and competence needs, which in turn foster intrinsic motivation. This highlights how satisfying psychological needs contributed to their continued improvement in physical fitness.

The improvements in the fitness tests reflect the effectiveness of the experiential learning process, the transfer of learning through similar exercises, and the fulfillment of psychological needs as per self-determination theory. These theories provided a strong framework to explain how the PATHFit program led to significant improvement in students' physical fitness.

Proposed intervention program for PATHFit

Title: PathFit Holistic Fitness Intervention Program (PHFIP)

Introduction:

The Commission on Higher Education (CHED) Memorandum Order No. 29 series of 2021 highlights the significance of physical activity for health and fitness in tertiary education. This

intervention program aims to enhance students' overall well-being through structured exercises targeting regressive exercises, locomotor and non-locomotor skills, and healthy eating habits. By integrating evidence-based activities, this program fosters improved physical fitness, motor coordination, and nutritional awareness among students.

Objectives:

1. To enhance students' endurance and strength through regressive exercises.
2. To improve agility and reaction-time, incorporated with coordination and balance using locomotor and non-locomotor activities.
3. To instill healthy eating habits for long-term well-being to improve BMI.
4. To align physical activities with CHED's PathFit standards for optimal student fitness development.
5. To promote an active lifestyle beyond academic requirements.

Expected Outcomes:

1. Increased strength and endurance through regressive exercises.
2. Enhanced movement efficiency and agility via locomotor skill activities.
3. Improved balance and coordination with non-locomotor exercises.
4. Development of lifelong healthy eating habits to influence the BMI of students
5. Greater awareness of personal fitness and its long-term benefits.

Program Components and Activities:

1. Regressive Exercise

CONCLUSION

The findings concluded that the PATHFit program is effectively implemented, particularly in promoting physical activities such as regressive exercises, progressive exercises, locomotor skills, and non-locomotor skills, all of which are consistently practiced at an excellent level. This highlights the program’s strong emphasis on movement and fitness. However, while healthy eating habits are also encouraged, they are perceived as slightly less emphasized, suggesting a need for further reinforcement in this area. Overall, the program is highly satisfactory in its implementation, demonstrating success in fostering physical activity, with an opportunity to strengthen its focus on nutrition.

The comparative analysis of pre-test and post-test results confirms the effectiveness of the PATHFit curriculum in improving students' performance across key health-related fitness components. Notable increases in the number of students within the normal BMI range reflect

improved body composition, while enhanced scores in push-up and plank exercises indicate gains in muscular strength and endurance. Additionally, improved results in the zipper test and sit-and-reach assessments demonstrate increased flexibility. These findings validate the impact of PATHFit in promoting measurable physical development and support its role in advancing students' overall health and fitness through structured intervention.

The pre-test and post-test results reveal that the implementation of the PATHFit curriculum significantly enhanced students' skill-related fitness components. Significant improvements in coordination, agility, power, balance, reaction time, and speed underscore the curriculum's effectiveness in refining key motor skills critical to athletic performance. These findings highlight the program's role in fostering movement responsiveness, physical stability, and overall physical competence, contributing to students' long-term fitness development. (combine #2-3 pre-test and post-test)

In light of the findings, it can be concluded that the level of implementation of PATHFit activities significantly influences students' physical fitness performance, particularly in skill-related fitness components. The data shows that students who participated in progressive exercises demonstrated noticeable improvements in coordination, agility, power, balance, reaction time, and speed. This highlights the importance of systematically implementing progressively challenging activities to drive physical development. Conversely, activities such as regressive exercise, locomotor skills, non-locomotor skills, and healthy eating habits did not show a direct correlation with post-test performance. These results reinforce the notion that the structured and progressive nature of certain PATHFit activities is crucial in achieving significant improvements in physical fitness, as reflected in the post-test results from the PFT.

It can be concluded that the PATHFit curriculum has a significant impact on students' physical fitness, as evidenced by the notable difference between the pre-test and post-test results. The improvements across various fitness components, including strength, flexibility, coordination, agility, speed, power, and balance, demonstrate that the curriculum effectively supports physical development. The significant difference observed between the pre-test and post-test results confirms that the PATHFit activities contribute to measurable improvements in students' physical performance, reinforcing the importance of structured and consistent fitness education in fostering long-term health and fitness.

In conclusion, while the PATHFit curriculum effectively improved students' physical fitness, some areas, including BMI, agility, and reaction time, showed only slight improvements. Additionally, regressive exercises, locomotor skills, non-locomotor skills, and healthy eating habits had no significant impact on post-test results. To address these gaps, targeted interventions focusing on agility, reaction time, and body composition, along with more engaging exercises for locomotor and non-locomotor skills and a stronger emphasis on healthy eating, are recommended. These adjustments will help ensure a more balanced and comprehensive improvement in students' physical fitness.

RECOMMENDATION

Based on the conclusions drawn, the following recommendations are made:

1. PE instructors. The proposed intervention program that was developed by the researcher can be adopted and utilized by other PE instructors to target improvements in agility, reaction time, body composition, and healthy eating habits.

2. PATHFit students. Students may actively and consistently follow the proposed program for consistent progress, focusing on areas of weakness and actively engaging in the varied activities for comprehensive physical development.

3. Future researchers. Researchers can use it as a framework for exploring the long-term effects of these interventions.

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