PANTAO
(International Journal of the Humanities and Social Sciences)
Volume 5, Issue 3
ISSN 3028-0877 | DOI 10.69651/2022PIJHSS

The extent of utilization and appreciation of teaching approaches and students' performance in PATHFIT 1: Basis for an action plan

Rochelle J. Ragas*
Surigao Del Norte State University - Mainit Campus, Surigao Del Norte, Philippines

ABSTRACT

This study investigated the extent of utilization and appreciation of teaching approaches, as well as the students' academic performance in PATHFit 1. Specifically, it determined the extent of utilization and appreciation of the following teaching approaches in Physical Education, namely gamification, scaffolding, inquiry, exploratory, and cooperative learning; the students' level of appreciation for these teaching approaches in PATHFit 1; and the level of students' performance in PATHFit 1. This study was conducted at Surigao del Norte State University's Mainit Campus during the First Semester of the 2022-2023 academic year, with 200 first-year student respondents determined using Slovin's formula. A descriptive-correlational design was employed in this study, utilizing a validated instrument as the primary data collection tool. The data gathered were analyzed using weighted mean, frequency distribution, and correlational analysis. The findings revealed that there was a pervasive utilization of the said teaching approaches, which the students highly appreciated. Consequently, the majority of the students performed excellently in PATHFit 1. Based on the findings, this study concluded that the Physical Education instructors at Surigao del Norte State University handling PATHFit 1 employed various teaching approaches in their classes. The PathFit1 students of the university performed well in their classes. They acquired the competencies required to pass the course.

Keywords: Academic performance, appreciation, students, teaching approaches, utilization.

Date Submitted: June 23, 2026
Date Accepted: June 29, 2026
Date Published: July 4, 2026

INTRODUCTION

Teaching approaches are essential in creating effective classroom environments that support the successful implementation of planned learning tasks. When teachers establish a conducive and engaging atmosphere where students actively collaborate and develop their skills, learners are more likely to achieve the intended learning objectives (Núñez & León, 2019). In contrast, Granero Gallegos et al. (2020) provided empirical support for the view that limited emphasis on student involvement, autonomy, and active participation may hinder the attainment of teaching goals. In practical terms, such limitations may result in lower student motivation, reduced understanding of course content, and a less effective learning environment.

*Corresponding author / Email: rochellejayann@gmail.com
DOI: http://doi.org/10.69651/PIJHSS05031277

Recommended citation:
Ragas, R. J. (2026). The extent of utilization and appreciation of teaching approaches and students' performance in PATHFIT 1: Basis for an action plan. Pantao (International Journal of the Humanities and Social Sciences) 5 (3), 428-447. http://doi.org/10.69651/PIJHSS05031277

These findings emphasize the need for educators to actively incorporate teaching strategies that promote participation, autonomy, collaboration, and meaningful engagement in the learning process.

In the Philippine higher education context, the importance of effective teaching approaches is particularly relevant in Physical Activity Towards Health and Fitness courses. The Commission on Higher Education recognized the contemporary challenge of declining physical activity and fitness among children and youth, a concern associated with the increasing use of technology, by introducing new guidelines for implementing PATHFit courses. In accordance with CMO No. 39 (2021), Physical Activities Towards Health & Fitness is a tertiary physical education course designed to encourage students to incorporate physical activity into their daily lives as a habitual practice. In developing this habit, students are expected to establish consistency in exercise routines, refine movement and exercise techniques, progressively challenge themselves, and work toward achieving their fitness and physical activity goals. Within this course, students participate in structured exercise programs that demonstrate how fundamental movement patterns may evolve or increase in complexity over time through changes in tempo, resistance, and exercise complexity.

Schools play a significant role in ensuring that Filipino learners maintain physical fitness through regular exercise routines and meaningful physical education experiences. This responsibility requires schools to facilitate learning through a wide range of teaching methods and delivery modes that support the achievement of program outcomes stipulated in the Philippine Standards Guidelines for the Bachelor of Physical Education. In this context, the use of varied and appropriate teaching approaches becomes a critical instructional concern because the effectiveness of physical education depends not only on the content taught but also on how students experience, appreciate, and apply the learning process. Teaching approaches that support engagement, movement competence, and student participation are therefore necessary in helping learners develop both physical fitness and positive attitudes toward lifelong physical activity.

Surigao del Norte State University, as the sole state university in the province of Surigao del Norte, prioritizes the delivery of comprehensive education. This institutional priority includes assessing and measuring the effectiveness of teaching methods used in physical education classes. At Surigao del Norte State University Mainit Campus, an agricultural school, students participate in physical activities not only in their Physical Education classes but also in their major subjects, including fieldwork. This setting provides a meaningful context for examining how teaching approaches are utilized and appreciated in PATHFit 1, especially because students' physical activity experiences may be shaped by both formal coursework and the physical demands of their academic program. Thus, the present study seeks to examine various teaching approaches and establish a framework for practical observation. These observations are intended to guide educators in developing well informed strategies that enhance teaching approaches and improve students' academic achievement and overall learning experiences within the PATHFit 1 course.

The study is grounded in several educational theories and models that provide a strong foundation for examining the relationship among teaching approaches, students' appreciation of these approaches, and academic performance within the PATHFit 1 framework. Vygotsky's Sociocultural Theory (1978) emphasizes the role of social interaction and cultural context in the learning process. This theory supports the exploration of cooperative learning and inquiry-based methods because both approaches emphasize collaboration, dialogue, and student exploration within the sociocultural environment of the classroom. In PATHFit 1, this perspective suggests that students may learn more effectively when they engage with peers, respond to shared physical tasks, and construct understanding through guided social participation.

Bandura's Social Learning Theory (1977) further contributes to the study by explaining how observational learning and modeling influence students' perceptions of teaching approaches. Through this lens, students' appreciation of different teaching strategies may be shaped by observing the behaviors, responses, and outcomes demonstrated by peers and educators. In physical education, where demonstration, imitation, feedback, and performance are central to learning, observational processes become especially important. Sweller's Cognitive Load Theory also provides insight into how scaffolding techniques can help manage cognitive demands, enhance students' learning experiences, and influence their appreciation of the learning process. By providing appropriate support and gradually reducing assistance as competence develops, scaffolding may help students engage more confidently with movement tasks and course requirements.

Self Determination Theory, proposed by Deci and Ryan (1985), offers another important perspective for understanding students' motivation and engagement in learning activities. This theory explains how teaching approaches such as gamification and exploratory learning may influence students' sense of autonomy, competence, and relatedness. When students feel that they have meaningful participation, adequate support, and opportunities to experience success, they may show higher appreciation of the teaching approach and stronger engagement in PATHFit 1 activities. Bloom's Taxonomy also provides a framework for assessing different levels of cognitive engagement and learning outcomes that may result from varied teaching methodologies. Together, these theories explain how teaching approaches may influence not only students' participation and perception but also their academic and holistic performance.

The conceptual framework of the study maps the relationships among teaching approaches, students' perceptions of these methodologies, and students' performance in PATHFit 1. At the center of this framework are the teaching approaches in Physical Education, namely gamification, scaffolding, inquiry-based learning, exploratory learning, and cooperative learning. These approaches represent the ways educators structure their teaching practices to enhance student engagement and learning outcomes. Gamification incorporates game elements to make learning more motivating and interactive. Scaffolding provides temporary support that enables students to accomplish tasks until they can perform them independently. Inquiry based learning encourages questioning, investigation, and active exploration. Exploratory learning allows students to discover concepts and movement patterns through guided experience. Cooperative learning promotes collaboration and shared responsibility among students. Each of these approaches offers a distinct pathway for improving students' learning experiences in PATHFit 1.

Students' perceptions of these teaching approaches form another central component of the framework. How students view and appreciate the strategies used in PATHFit 1 is important because their perceptions may influence motivation, engagement, and willingness to participate in physical activities. A teaching approach may be theoretically sound, but its effectiveness may be limited if students do not perceive it as meaningful, engaging, or supportive. Therefore, examining students' appreciation of teaching approaches provides insight into how instructional strategies are experienced from the learner's perspective. This learner centered understanding is essential in determining which approaches may be most effective in promoting participation, skill development, and academic success.

Students' performance in PATHFit 1 is also a crucial element of the framework. Performance includes academic achievement, such as grades and test scores, as well as holistic indicators such as participation, skill development, and overall growth. The study considers how these outcomes may be affected by the teaching approaches used and by students'

perceptions of those approaches. In addition, several mediating factors are identified as important influences in the relationship among teaching approaches, student perceptions, and performance. These include teaching effectiveness, student engagement, and learning retention. Effective teaching, high engagement, and strong retention of learned material are necessary for achieving positive educational outcomes. Thus, the framework recognizes that teaching approaches may affect performance both directly and indirectly through the quality of instruction, the level of student involvement, and the extent to which students retain and apply what they have learned.

By integrating the theoretical and conceptual foundations, the study provides a comprehensive lens for understanding the complex interactions among teaching approaches, students' appreciation, and performance in PATHFit 1. Vygotsky's Sociocultural Theory supports the use of cooperative and inquiry-based learning by emphasizing interaction and cultural context. Bandura's Social Learning Theory explains how modeling and observation shape students' perceptions of teaching methods. Sweller's Cognitive Load Theory clarifies how scaffolding may help manage learning demands. Self Determination Theory explains how autonomy, competence, and relatedness may influence motivation and appreciation. Bloom's Taxonomy offers a basis for examining levels of cognitive engagement and learning outcomes. Together, these perspectives reveal how diverse teaching approaches align with established educational theories and how they may influence students' motivation, perceptions, and academic performance.

Overall, the literature and theoretical foundations suggest that teaching approaches play a significant role in shaping students' learning experiences and performance in PATHFit 1. While physical education courses are designed to promote fitness, movement competence, and lifelong physical activity, their effectiveness depends greatly on how instruction is delivered and how students respond to the approaches used. Existing studies emphasize that student involvement, autonomy, collaboration, scaffolding, exploration, and motivation are important conditions for successful learning. However, there remains a need to examine how these teaching approaches are utilized and appreciated within the specific context of PATHFit 1 at Surigao del Norte State University Mainit Campus and how they relate to students' performance. Addressing this need provides a basis for developing an action plan that can guide educators in improving instructional practices, strengthening student engagement, and enhancing academic and holistic outcomes in the PATHFit 1 course.

Statement of the problem

This study determined the extent of utilization and appreciation of teaching approaches and students' performance in PATHFit 1.

Specifically, it sought to address questions concerning the utilization of selected teaching approaches, students' appreciation of these approaches, students' performance, the relationship among these variables, and the action plan that may be proposed based on the findings.

1. What is the extent of utilization of teaching approaches in PATHFit 1 in terms of gamification, scaffolding, inquiry, exploratory learning, and cooperative learning?
2. What is the student's level of appreciation of the teaching approaches in PATHFit 1?
3. What is the level of the students' performance in PATHFit 1?
4. Is there a significant relationship between students' performance, the extent to which teaching approaches are utilized, and the students' level of appreciation of these approaches?
5. Based on the findings, what action plan may be proposed?

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METHODOLOGY

The researcher employed a descriptive correlational design for this study to explore the relationship between teaching approaches and students' appreciation and performance in PATHFit 1. Descriptive research was chosen because it aimed to describe the various teaching approaches manifested through each indicator of these approaches, which involved detailing how interactive teaching, cooperative learning, and self-instructional strategies were implemented in physical education classes. Moreover, the study was correlational because it examined the relationship between these teaching approaches and students' appreciation and performance in the PATHFit 1 program, with correlational analysis used to determine if there were any associations between the implementation of these teaching methods and the students' outcomes in terms of their physical fitness, understanding of health concepts, and overall satisfaction with the program. By using this design, the study aimed to provide a detailed description of how different teaching strategies were implemented in the PATHFit 1 program and to analyze whether these strategies were associated with improved student outcomes, an approach that allowed the researcher to explore both the practical application of these teaching methods and their impact on students' engagement and performance in physical education.

This study was conducted at the Surigao del Norte State University (SNSU) Mainit Campus, located in Barangay Magpayang, Mainit, Surigao del Norte, one of SNSU's four campuses. SNSU was established in 1969 as a primary provider of research and developmental studies in Surigao del Norte. The SNSU Mainit Campus, formerly known as Surigao State College of Technology Mainit Campus, is approximately 52 kilometers from the center of Surigao City. The campus is accessible by bus (Bachelor Express), small jeep (multicab), or van for hire, and public transport such as motorcycles is available from the national highway, or alternatively the campus may be reached by a 5-minute walk. The research locale, including its location relative to Surigao City and the surrounding barangay, was further illustrated through a map of the area prepared for the study.

The population of this study consisted of PATHFit 1 students enrolled in three (3) university programs, namely the BTLED Program, the BAT Program, and the BSAF Program. The distribution of the population and the corresponding respondents drawn from each program was as follows. For the BTLED Program, the population (N) was 74 and the sample (n) was 38. For the BAT Program, the population (N) was 184 and the sample (n) was 94. For the BSAF Program, the population (N) was 132 and the sample (n) was 68. In total, the population (N) across the three programs was 390, from which a total sample (n) of 200 respondents was drawn.

This study utilized stratified random sampling. Slovin's formula determined the sample size, and the Ratio and Proportion method was used to obtain the number of respondents per program, as reflected in the population and sample distribution presented above. Using stratified random sampling ensured that each program was represented in the sample, which was beneficial when differences between these programs impacted the overall results, and this method reduced potential biases by taking a random sample from the entire population without considering these program-based differences.

The study employed a researcher-made instrument comprising two distinct sections to comprehensively evaluate the extent of utilization of teaching approaches, the level of appreciation, and the students' academic performance in PATHFit 1. The first section involved a detailed assessment of teaching approaches using 10 indicators crafted by the researcher. These indicators likely encompassed various facets of teaching, such as clarity of explanation, engagement, adaptability, and instructional effectiveness, and they served as a structured

means to evaluate and categorize different teaching approaches that instructors and professors employed. The second part of the instrument consisted of 10 indicators scaled from 1 to 4 and included verbal descriptions, focusing on students' perspectives by evaluating their appreciation of these teaching approaches. This segment aimed to capture students' perceptions of the teaching methods they encountered, and through this section, the researcher aimed to understand how students subjectively perceived the quality and effectiveness of the teaching approaches used in PATHFit 1, potentially uncovering discrepancies between students' perceptions and the actual quality of teaching.

The research instrument used in this study was validated and assessed for reliability through a rigorous process. Experts in PATHFit 1 validated the researcher-made instrument initially. Following this, the instrument underwent tryout testing with 30 students at Agusan Colleges Inc. in Butuan City, Agusan del Norte, to assess its reliability. The calculated Cronbach's alpha values for the variables were as follows: gamification scored 0.84, scaffolding achieved 0.88, inquiry-based garnered 0.88, and exploratory received a score of 0.84, all indicating good reliability. Collaboration exhibited an exceptionally high score of 0.95, signifying excellent reliability, while the level of appreciation also demonstrated strong internal consistency with an index of 0.91, indicating excellent reliability. The content validity of the instrument was ensured through the involvement of experts in PATHFit 1, who validated the researcher-made instrument to ensure that it adequately covered the intended teaching strategies and constructs relevant to the study. Their input helped confirm that the instrument's items accurately represented the concepts of gamification, scaffolding, inquiry-based learning, exploratory learning, collaboration, and the level of appreciation in the context of physical education. As previously noted, the instrument included 10 indicators, scaled from 1 to 4, accompanied by verbal descriptions, focusing on students' perspectives by evaluating their appreciation of these teaching approaches, a section that aimed to capture students' perceptions of the teaching methods they encountered and through which the researcher sought to understand how students subjectively perceived the quality and effectiveness of the teaching approaches used in PATHFit 1, potentially uncovering discrepancies between students' perceptions and the actual quality of teaching.

The researcher initiated the validation and reliability testing of the instrument after obtaining permission from the Dean of the Graduate School. A formal request was then sent seeking approval from the Dean of the College of Education at Agusan Colleges, Inc., the site chosen for the tryout test to assess the instrument's reliability. Right after the instrument obtained a satisfactory reliability index signifying its effectiveness, the researcher sought permission from the Campus Director of Surigao del Norte State University, Mainit Campus, to conduct the study and collect data from their PATHFit 1 students. To ensure an efficient and expedited data collection process, the researcher personally managed the distribution of the questionnaires. This hands-on approach was implemented to increase the response rate and expedite the data collection process, and by directly overseeing the dissemination of the researcher-made instrument, the researcher aimed to optimize returns and accelerate the acquisition of valuable data necessary for the study.

Data from the respondents were organized and tallied for data analysis using a defined scaling scheme applied to the indicators for the teaching approaches and the level of students' appreciation. Under this scheme, a scale of 4, corresponding to a range of 3.5 to 4.0, carried the verbal description Strongly Agree and was interpreted as very extensive or highly appreciated. A scale of 3, corresponding to a range of 2.5 to 3.49, carried the verbal description Agree and was interpreted as extensively or moderately appreciated. A scale of 2, corresponding to a range of 1.5 to 2.49, carried the verbal description Disagree and was interpreted as moderately extensive or fairly appreciated. A scale of 1, corresponding to a range of 1.0 to 1.49, carried the verbal description Strongly Disagree and was interpreted as less

extensive or lowly appreciated. For students' performance, a range of 1.0 to 1.5 was interpreted as Excellent, a range of 1.51 to 2.5 was interpreted as Above average, a range of 2.51 to 3.0 was interpreted as Average (Passing), a range of 3.01 to 400 was interpreted as Below average (for removal), and a range of 4.01 to 5.0 was interpreted as Failed.

The following statistical tools were used to analyze the data. The weighted mean was used to determine the extent of utilization of teaching approaches and the level of appreciation among students in PATHFit 1. Frequency distribution was used to determine the participants' performance level in PATHFit 1. Correlational analysis was used to determine the significant relationship between students' academic performance in PATHFit 1, the extent of utilization of teaching approaches among Physical Education teachers, and students' appreciation of PATHFit 1.

RESULTS AND DISCUSSION

This chapter presents the findings and results of the study, based on data gathered from 200 PATHFit 1 students drawn through stratified random sampling from a population of 390 enrolled across the BTLED, BAT, and BSAF programs at Surigao del Norte State University, Mainit Campus. Data were collected using a researcher made instrument consisting of sections measuring the extent of utilization of teaching approaches, namely gamification, scaffolding, inquiry-based teaching, exploratory approach, and collaborative learning, as well as students' level of appreciation of these approaches and their academic performance in PATHFit 1. The collected data were examined using weighted mean to determine the extent of utilization of teaching approaches and the level of appreciation among students, frequency distribution to determine participants' performance level, and correlational analysis to determine the significant relationship between students' academic performance, the extent of utilization of teaching approaches, and students' appreciation of PATHFit 1. The discussion that follows is grounded entirely in the data gathered and is presented sequentially according to the problem statements of the study.

With regard to the extent of utilization of gamification in teaching PATHFit 1 during the First Semester of the 2022 to 2023 academic year at Surigao del Norte State University's Mainit Campus, the indicator stating that the student actively participates in the PATHFit 1 class especially when the instructor or professor uses games obtained the highest weighted mean of 3.73, verbally described as Strongly Agree and interpreted as Very Extensive. This was followed by the indicator on gamification enhancing engagement and motivation in class, which obtained a weighted mean of 3.54, Strongly Agree, Very Extensive, and the indicator that the use of gamification makes learning more enjoyable, which obtained a weighted mean of 3.69, Strongly Agree, Very Extensive. The indicator stating that gamification helps demonstrate increased enthusiasm and interest in the PATHFit 1 lesson obtained a weighted mean of 3.59, Strongly Agree, Very Extensive, while the indicator on being more involved and actively participating in class activities because of gamification obtained a weighted mean of 3.51, Strongly Agree, Very Extensive. The indicator that gamification adds a competitive element that keeps the student motivated to perform better obtained a weighted mean of 3.55, Strongly Agree, Very Extensive. The indicator on the rewards and incentives in gamification being motivating and rewarding obtained a weighted mean of 3.32, Agree, Extensive, while the indicator on regularly incorporating gamification techniques into the PATHFit 1 lesson obtained a weighted mean of 3.34, Agree, Extensive. The indicator that gamification provides a clear structure and framework for learning in class obtained a weighted mean of 3.61, Strongly Agree, Very Extensive, and the indicator on effectively utilizing gamification to

reinforce and consolidate knowledge gained in Physical Education lessons obtained a weighted mean of 3.58, Strongly Agree, Very Extensive. The overall weighted mean for gamification was 3.55, verbally described as Strongly Agree and interpreted as Very Extensive, based on the legend in which a range of 1.0 to 1.49 was interpreted as Strongly Disagree, 1.5 to 2.49 as Disagree, 2.5 to 3.49 as Agree, and 3.50 to 4.0 as Strongly Agree. The highest weighted mean of 3.73 indicated that gamification effectively stimulated active involvement, making students more engaged and interactive during classes, and that students were more motivated and participative when gamified elements were integrated into the curriculum, a valuable strategy in various educational settings that enhanced the overall academic experience. Wichadee's 2018 research study emphasized the potential of gamification in augmenting student engagement by leveraging game mechanics and dynamics. Meanwhile, the lowest weighted mean of 3.32, pertaining to the perceived effectiveness of rewards and incentives in gamification, fell within the Agree category, indicating Extensive agreement, and reflected the respondents' belief that rewards and incentives added excitement and made learning fun and enjoyable. Werbach and Hunter's 2012 research emphasized the importance of aligning rewards with learners' intrinsic motivation, suggesting that effective rewards should not only motivate but also be directly tied to learners' inherent drives. This alignment between the study's findings and established literature strongly supports the integration of gamification as an impactful pedagogical tool within PATHFit 1, and the positive reception and substantial participation levels observed underscored the significance of innovative teaching methodologies in cultivating an enriched and engaging learning atmosphere. The convergence between empirical findings and established scholarly research reinforced the notion that gamification holds immense promise as a potent educational strategy, particularly within specialized domains such as physical education, highlighting the importance of ongoing exploration and adoption of innovative teaching methods to enhance student learning experiences and outcomes. These findings underscored the potential of gamification as a powerful teaching strategy in physical education settings, as by emphasizing enjoyment, engagement, and structured learning experiences, gamification not only enhanced students' educational experiences but also promoted active participation and motivation in the learning process, supporting the broader adoption of gamification across educational contexts to enhance student outcomes and promote a positive learning environment.

Regarding the extent of utilization of scaffolding in teaching PATHFit 1, the indicator on appreciating the structured support provided in the PATHFit 1 class obtained a weighted mean of 3.77, Strongly Agree, Very Extensive. The indicator that step by step guidance helps in understanding complex concepts and tasks better obtained a weighted mean of 3.69, Strongly Agree, Very Extensive, and the indicator that provided resources and materials help learn effectively obtained a weighted mean of 3.67, Strongly Agree, Very Extensive. The indicator on clear direction and guidance helping progress in learning obtained a weighted mean of 3.56, Strongly Agree, Very Extensive, while the indicator on feeling more confident in tackling challenging assignments due to the support provided obtained a weighted mean of 3.46, Agree, Extensive. The indicator on breaking down tasks into manageable steps making it easier to learn obtained a weighted mean of 3.47, Agree, Extensive, and the indicator on feedback and assistance enhancing the learning process obtained a weighted mean of 3.50, Strongly Agree, Very Extensive. The indicator that scaffolding helps gradually build understanding in Physical Education obtained a weighted mean of 3.55, Strongly Agree, Very Extensive, while the indicator on the supportive learning environment promoting the learning experience obtained a weighted mean of 3.60, Strongly Agree, Very Extensive. The indicator on reflecting on progress and making connections to prior knowledge in Physical Education obtained a weighted mean of 3.62, Strongly Agree, Very Extensive. The average weighted mean for scaffolding was 3.59, Strongly Agree, Very Extensive, based on the legend in which 1

corresponds to 1.0 to 1.49 as Strongly Disagree, 2 corresponds to 1.5 to 2.49 as Disagree, 3 corresponds to 2.5 to 3.49 as Agree, and 4 corresponds to 3.50 to 4.0 as Strongly Agree. The highest weighted mean of 3.77, pertaining to appreciation of structured support, resonated strongly with Vygotsky's scaffolding theory, which emphasized the importance of structured support to facilitate learners' progression (McLeod, 2022), and the high mean value underscored students' recognition and benefit from the structured support provided within the PATHFit 1 curriculum, as well as the importance of clear communication and transparency in teaching practices, which contributed to students' overall satisfaction and engagement in the program. Moreover, the high level of appreciation for structured support suggests that it contributed positively to the overall effectiveness of the PATHFit 1 program, and maintaining and improving this structured support could further encourage students to participate in physical education and adopt healthy lifestyle habits actively. The lowest weighted mean of 3.46, pertaining to feeling more confident in tackling challenging assignments due to the support provided, fell in the Agree category, and this finding suggests an opportunity for more personalized support, constructive feedback, and gradual release of responsibility as students become more proficient, which aligns well with the notion that scaffolding should aid learning and enhance learners' self-efficacy (Sun and Hsu, 2019), indicating a notable opportunity to focus on strategies within the PATHFit 1 curriculum that support learning and empower students to approach challenging tasks with increased confidence. The overall consensus regarding scaffolding within the PATHFit 1 curriculum was Strongly Agree, with a total average weighted mean of 3.59, and enhancing targeted increased self-efficacy along with further optimization of task breakdown strategies may contribute to more robust learning experiences within the PATHFit 1 context, aligning with the principles of scaffolding highlighted in related educational literature.

In terms of the extent of utilization of inquiry-based teaching in PATHFit 1, the indicator on liking the active and engaging approach used in the PATHFit 1 class obtained a weighted mean of 3.74, Strongly Agree, Very Extensive. The indicator on opportunities for exploration and discovery enhancing understanding of the subject matter obtained a weighted mean of 3.58, Strongly Agree, Very Extensive, while the indicator on the emphasis on problem solving and critical thinking skills improving the learning experience obtained a weighted mean of 3.44, Agree, Extensive. The indicator on hands on activities and experiments deepening understanding of the concepts taught obtained a weighted mean of 3.48, Agree, Extensive, and the indicator on feeling more involved and invested in learning due to opportunities for independent thinking obtained a weighted mean of 3.52, Strongly Agree, Very Extensive. The indicator on open ended questions and discussions fostering a deeper understanding of the topics covered obtained a weighted mean of 3.46, Agree, Extensive, while the indicator on the learning process allowing connection of concepts and application to real life situations obtained a weighted mean of 3.55, Strongly Agree, Very Extensive. The indicator that questions given in class stimulated the ability to think obtained a weighted mean of 3.57, Strongly Agree, Very Extensive, and the indicator on the collaborative nature of learning activities enhancing the learning experience obtained a weighted mean of 3.51, Strongly Agree, Very Extensive. The indicator on incorporating real world examples and contexts to engage in inquiry-based learning in Physical Education obtained a weighted mean of 3.53, Strongly Agree, Very Extensive. The average weighted mean for inquiry-based teaching was 3.53, Strongly Agree, Very Extensive, based on the legend in which 1.0 to 1.49 corresponds to Strongly Disagree, 1.5 to 2.49 to Disagree, 2.5 to 3.49 to Agree, and 3.50 to 4.0 to Strongly Agree. The highest weighted mean of 3.74, pertaining to liking the active and engaging approach used in the class, signified a profound appreciation for this approach and strongly aligned with the principles of

inquiry based learning, which prioritize active student involvement and engagement (Constantinou et al., 2018), with the high mean value underscoring that students found this active, engaging approach highly effective and conducive to learning, consistent with the observation that active and engaging teaching methods have a positive impact on student motivation and learning outcomes (Jovanovic et al., 2021). This result is crucial as it underscores the effectiveness of active and engaging teaching methods in the PATHFit 1 program, with the high weighted mean indicating that students strongly valued and enjoyed the active and engaging approach used in their physical education classes, an approach that likely includes interactive activities, hands on learning experiences, and opportunities for movement and participation, known to enhance student motivation and learning outcomes in physical education. The lowest weighted mean of 3.44, pertaining to the emphasis on problem solving and critical thinking skills improving the learning experience, fell within the Agree category, and this emphasis likely encourages students to analyze health and fitness challenges, make informed decisions, and apply knowledge creatively, skills that not only improve their ability to solve problems but also prepare them for future academic and professional endeavors.

With respect to the extent of appreciation of the exploratory approach in teaching PATHFit 1, the indicator on the hands on and interactive approach making the class more interesting obtained a weighted mean of 3.63, Strongly Agree, Very Extensive. The indicator on opportunities for independent exploration enhancing understanding of the subject matter obtained a weighted mean of 3.51, Strongly Agree, Very Extensive, and the indicator on the focus on active experimentation and discovery improving the learning experience obtained a weighted mean of 3.56, Strongly Agree, Very Extensive. The indicator on the use of real-life examples and scenarios helping apply concepts in practical ways obtained a weighted mean of 3.55, Strongly Agree, Very Extensive, for its first occurrence, while a subsequent indicator with the same statement on the use of real-life examples and scenarios helping apply concepts in practical ways obtained a weighted mean of 3.50, Strongly Agree, Very Extensive. The indicator on feeling more engaged and motivated in learning due to opportunities for self-directed learning obtained a weighted mean of 3.56, Strongly Agree, Very Extensive, and the indicator on the learning process allowing exploration of different perspectives and development of one's own ideas obtained a weighted mean of 3.59, Strongly Agree, Very Extensive. The indicator on the collaborative nature of the learning activities enhancing the learning experience obtained a weighted mean of 3.59, Strongly Agree, Very Extensive, and the indicator on the use of materials and resources to support exploration in Physical Education obtained a weighted mean of 3.59, Strongly Agree, Very Extensive. The indicator on the learning process allowing critical thinking and reflection on experiences in exploratory activities in Physical Education obtained a weighted mean of 3.62, Strongly Agree, Very Extensive. The average weighted mean for the exploratory approach was 3.57, Strongly Agree, Very Extensive, based on the legend in which 1 corresponds to 1.0 to 1.49 as Strongly Disagree, 2 corresponds to 1.5 to 2.49 as Disagree, 3 corresponds to 2.5 to 3.49 as Agree, and 4 corresponds to 3.50 to 4.0 as Strongly Agree. The indicator on the hands on and interactive approach making the class more interesting, which received the highest weighted mean of 3.63, indicated strong agreement and profound appreciation, meaning that students highly valued and found the hands on and interactive approach engaging and effective in their physical education classes, an approach that likely involves practical activities, group discussions, and interactive exercises that allow students to participate in their learning actively, activities known to enhance student motivation and interest in learning health and fitness concepts. Students appreciated the hands on and interactive approach because it promoted a dynamic and stimulating learning environment, while also encouraging collaboration, critical thinking, and problem solving skills crucial for students' overall development, aligning with the core principles of exploratory learning, which emphasize active engagement and experiential

learning (Jose et al., 2017), with the high mean value emphasizing that students found this approach highly effective in enhancing interest and engagement in the class. Students appreciated the exploratory approach because it allowed them to participate actively in their learning process, investigating, experimenting, and discovering health related topics, which not only deepened their understanding but also made the learning experience more meaningful and relevant, fostering curiosity, critical thinking, and problem-solving skills essential for students' academic and personal growth. The lowest weighted mean of 3.50, pertaining to the use of real-life examples and scenarios helping apply concepts in practical ways, still fell within the Strongly Agree category, highlighting the importance of real-life relevance in the exploratory approach and suggesting that faculty explore the use of case studies, simulations, or field experiences to deepen students' practical application of concepts in real world contexts. The average weighted mean of 3.57, falling within the Strongly Agree category, indicated a high level of agreement among students regarding the extent of appreciation of the exploratory teaching method, with students strongly endorsing and actively engaging with the exploratory approach used in their physical education classes, a method that likely involves hands on activities, interactive learning experiences, and opportunities for students to explore health and fitness concepts independently, aspects known to enhance student motivation, engagement, and understanding.

Concerning the extent of appreciation of collaborative learning in PATHFit 1, the indicator on appreciating the collaborative and interactive approach used in the class obtained a weighted mean of 3.65, Strongly Agree, Very Extensive. The indicator on opportunities to work together with classmates enhancing understanding of the subject matter obtained a weighted mean of 3.61, Strongly Agree, Very Extensive, and the indicator on the focus on teamwork and cooperation improving the learning experience obtained a weighted mean of 3.67, Strongly Agree, Very Extensive. The indicator on discussions and interactions with classmates helping gain new perspectives obtained a weighted mean of 3.64, Strongly Agree, Very Extensive, while the indicator on feeling more engaged and motivated in learning due to collaborative activities obtained a weighted mean of 3.57, Strongly Agree, Very Extensive. The indicator on group tasks and projects fostering effective communication and interpersonal skills obtained a weighted mean of 3.52, Strongly Agree, Very Extensive, and a repeated indicator on appreciating the collaborative and interactive approach used in the class obtained a weighted mean of 3.53, Strongly Agree, Very Extensive. The indicator on gaining more insights regarding the lessons from the ideas of classmates obtained a weighted mean of 3.51, Strongly Agree, Very Extensive, and the indicator on providing opportunities to work together in groups to achieve common objectives in PATHFit 1 obtained a weighted mean of 3.53, Strongly Agree, Very Extensive. The indicator that cooperative learning fosters problem solving and conflict resolution skills in Physical Education obtained a weighted mean of 3.43, Agree, Extensive. The average weighted mean for collaborative learning was 3.56, Strongly Agree, Very Extensive, based on the legend in which 1 corresponds to 1.0 to 1.49 as Strongly Disagree, 2 corresponds to 1.5 to 2.49 as Disagree, 3 corresponds to 2.5 to 3.49 as Agree, and 4 corresponds to 3.50 to 4.0 as Strongly Agree. The indicator on the focus on teamwork and cooperation improving the learning experience, which obtained the highest weighted mean of 3.67, verbally interpreted as Strongly Agree, signified strong agreement and extensive appreciation, emphasizing the critical role of teamwork and cooperation in collaborative learning (Zhang, 2019), with the high mean value suggesting that students perceived these skills as vital for their overall learning experience and personal development. However, the indicator that cooperative learning fosters problem solving and conflict resolution skills in Physical Education obtained the lowest mean value of 3.43, with the verbal description Agree,

meaning that while some students acknowledged that cooperative learning fosters problem solving and conflict resolution skills, this represented an opportunity to integrate and emphasize these skills more explicitly. The average weighted mean of 3.56, categorized as Strongly Agree, indicated a substantial consensus among students regarding the utilization and appreciation of collaborative learning in their PATHFit 1 class, meaning that students valued this approach and believed it enhanced their learning experience, and this value underscored the pivotal role of collaborative and interactive approaches in enriching the learning experience. This high average weighted mean indicated that students strongly endorsed and valued collaborative learning experiences in their physical education classes, which involved group activities, cooperative projects, and peer to peer interactions encouraging students to work together toward common goals, activities that not only promoted teamwork and communication skills but also enhanced learning outcomes by fostering collective problem solving and critical thinking. The substantial consensus among students underscored the effectiveness of collaborative learning in PATHFit 1 in creating a supportive and interactive learning environment, with students appreciating the opportunity to collaborate with their peers as it enabled them to share ideas, learn from one another's experiences, and build social connections within their class.

Turning to the students' level of appreciation of the teaching approaches in PATHFit 1, the indicator on valuing the positive and supportive learning environment in the class obtained a weighted mean of 3.67, Strongly Agree, highly appreciated. The indicator on recognition and encouragement from the instructor enhancing motivation to learn obtained a weighted mean of 3.65, Strongly Agree, highly appreciated, and the indicator on the focus on acknowledging individual progress and achievements boosting confidence obtained a weighted mean of 3.70, Strongly Agree, highly appreciated. The indicator on constructive feedback helping grow and improve skills obtained a weighted mean of 3.69, Strongly Agree, highly appreciated, while the indicator on feeling respected and valued as a learner in the class obtained a weighted mean of 3.70, Strongly Agree, highly appreciated. The indicator on opportunities for self-reflection and self-expression being appreciated obtained a weighted mean of 3.72, Strongly Agree, highly appreciated, and the indicator on the instructor's enthusiasm and passion for teaching creating a positive learning atmosphere obtained a weighted mean of 3.70, Strongly Agree, highly appreciated. The indicator on collaborative and supportive interactions with peers enhancing the overall learning experience obtained a weighted mean of 3.66, Strongly Agree, highly appreciated, and the indicator on varied approaches fostering a positive and supportive learning environment in Physical Education obtained a weighted mean of 3.72, Strongly Agree, highly appreciated. The indicator on promoting a growth mindset and encouraging oneself to set and achieve personal goals in Physical Education obtained a weighted mean of 3.77, Strongly Agree, highly appreciated. The average weighted mean for the level of appreciation was 3.69, Strongly Agree, highly appreciated, based on the legend in which 1 corresponds to 1.0 to 1.49 as Strongly Disagree, 2 corresponds to 1.5 to 2.49 as Disagree, 3 corresponds to 2.5 to 3.49 as Agree, and 4 corresponds to 3.50 to 4.0 as Strongly Agree. The indicator on promoting a growth mindset and encouraging oneself to set and achieve personal goals in Physical Education, rated with the highest weighted mean of 3.77, indicated the importance of cultivating a growth mindset and effective goal setting strategies among students, with encouraging personal development aligning with self-determination and self-regulation in learning and empowering students to take ownership of their progress (Wehmeye et al., 2021). The indicator on recognition and encouragement from the instructor enhancing motivation to learn achieved the lowest weighted mean of 3.65, still indicating Strongly Agree, which suggests that although some students may not have experienced consistent recognition or encouragement from their instructor and found something else even more motivating or impactful, they nonetheless still highly valued instructor recognition and encouragement,

underscoring that instructors play a pivotal role in motivating students and that their recognition and encouragement have a significant impact on motivation and engagement (Johnson, 2017). Overall, while students highly appreciated the teaching approaches within PATHFit 1, cultivated through self-reflection, peer interactions, and instructor support, continued emphasis on these aspects can significantly contribute to students' motivation, engagement, and learning experiences.

As to the level of students' performance in PATHFit 1, out of the total of 200 students, 135 obtained a performance rating of 1.5, interpreted as Excellent, and 65 obtained a performance rating between 1.51 and 2.5, interpreted as Above average. No students, or 0, obtained a rating between 2.51 and 3.0, interpreted as Average (Passing); no students, or 0, obtained a rating between 3.01 and 4.00, interpreted as Below average (for removal); and no students, or 0, obtained a rating between 4.01 and 5.0, interpreted as Failed, for a total of 200 students across all categories. The Excellent category, typically corresponding to grades between 1.0 and 1.5, indicated that students demonstrated outstanding performance in the PATHFit 1 program, an achievement that can be attributed to the effective teaching methods employed, such as hands on and interactive activities, collaborative learning, inquiry based learning, and other engaging approaches, methods that likely contributed to a positive learning environment that motivated students to actively participate, apply critical thinking skills, and develop a deeper understanding of health and fitness concepts, and that are designed to enhance student engagement and promote active learning, ultimately supporting higher academic achievement. The alignment of performance ratings with the Excellent category suggests that the curriculum design and teaching strategies used in PATHFit 1 are well suited to meet the needs and preferences of students, with the emphasis on interactive and engaging approaches within PATHFit 1 likely contributing to this favorable outcome, reiterating that active and student-centered teaching approaches correlate with improved learning outcomes. Similarly, the significant number of 65 students falling into the Above average category, with performance ratings between 1.51 and 2.5, underscored the positive impact of the teaching strategies employed in PATHFit 1, an outcome that can be attributed to the conducive learning environment and supportive guidance discussed in relation to the students' level of appreciation, since when students feel supported and valued academically, they tend to perform better (West et al., 2020), a pattern likely facilitated by interactive and engaging teaching methods that encourage active participation, critical thinking, and collaboration among students. Furthermore, the supportive guidance provided by instructors plays a crucial role in student success, as when students feel supported and valued, they are more likely to be motivated and confident in their abilities, which contributes to their academic performance, reinforcing the importance of creating a supportive and encouraging learning environment in physical education. The absence of students, at 0, in the Average (Passing) category, as well as at 0 in the Below average (for removal) category and at 0 in the Failed category, was noteworthy, signifying the success of interventions and support mechanisms in preventing students from falling behind or failing, consistent with the common practice of educational institutions to identify struggling students early and provide necessary assistance to help them succeed. The absence of students in the Average category might suggest that those who met the passing threshold tended to perform above average or at an excellent level, indicating high engagement and achievement among PATHFit 1 students. Overall, the distribution of student performance, with 135 students rated Excellent, 65 rated Above average, and 0 in each of the remaining three categories out of a total of 200, showcased the positive impact of effective teaching methodologies, student engagement, and the supportive learning environment within PATHFit 1, with the absence of students in the lower performance categories indicating

successful intervention strategies and a culture that promotes academic excellence and student support.

The test of the significant relationship between students' performance, the extent of utilization of the teaching approaches, and the level of students' appreciation, conducted with n equal to 200 and a p value threshold of 0.05, revealed the following results. Between the extent of utilization of teaching approaches and students' performance, the Pearson r value was -0.059, with a p value of .036, leading to a decision to reject the null hypothesis, with the relationship interpreted as Significant. Between students' appreciation and students' performance, the Pearson r value was -0.065, with a p value of .043, likewise leading to a decision to reject the null hypothesis, with the relationship interpreted as Significant. The negative correlation coefficients between the utilization of teaching approaches and students' performance, at r equal to -0.059, and between students' appreciation and performance, at r equal to -0.065, suggested slight tendencies for performance to decrease as utilization or appreciation of teaching approaches increases, and while these correlations were weak, their statistical significance, at p equal to 0.036 and p equal to 0.043 respectively, indicated that these relationships were not random occurrences. A negative correlation coefficient indicates that as one variable increases, the other tends to decrease in value, and in this case, as the utilization or appreciation of teaching approaches in PATHFit 1 increases, there is a slight tendency for students' performance to decrease, although it is essential to note that these correlations are weak, indicating a relatively weak relationship between these variables. Despite their weakness, the statistical significance of these correlations, at p equal to 0.036 and p equal to 0.043, indicates that these relationships are unlikely to be due to random chance, suggesting instead that there may be an influence on students' academic performance in PATHFit 1 due to how teaching approaches are utilized or appreciated. These findings imply several possibilities, such as that an over reliance on specific teaching methods could lead to decreased performance if these methods are not balanced with other effective strategies, and that students' performance might be influenced by factors beyond just the teaching approaches, such as individual learning styles, external pressures, or other variables not directly measured in the study. One possible interpretation is that highly innovative or experimental teaching methods pose challenges for certain students, potentially leading to a slight decline in performance, which aligns with the notion that not all students may equally adopt or benefit from diverse teaching approaches (Lindblom Ylanne et al., 2017), since different learning styles and preferences among students could impact how they respond to innovative teaching methods, affecting their performance outcomes. The rejection of the null hypothesis in both cases signifies that there is indeed a statistically significant relationship between students' performance, the utilization of teaching approaches, and students' appreciation, and despite the weak correlations, these findings provide crucial insights into the complex interplay between teaching methodologies, students' perceptions, and performance outcomes. Ultimately, these findings underscore the importance of a balanced approach that prioritizes engaging teaching methodologies alongside student performance.

Building on these findings, a proposed action plan was developed, exemplifying a comprehensive strategy to improve teaching methodologies and enhance the overall learning experience. It targets specific areas identified in the study findings, seeking to optimize existing methods while leveraging their positive aspects, and prioritizes refining reward systems and reinforcing elements that foster self-efficacy in order to enhance teaching methodologies, including the use of gamification and scaffolding. This initiative aims to enhance student engagement, motivation, and confidence, aligning with the goal of fostering autonomy and continuity in learning, while integrating growth mindset strategies and encouraging self-reflection intends to cultivate students' resilience, critical thinking, and metacognitive skills, ensuring a holistic educational experience. Moreover, the plan addresses the complex interplay

between teaching approaches and performance outcomes, since analyzing correlations between methodologies and student performance allows a deeper understanding of potential trends and challenges, and educators aim to gain valuable insights into student perceptions, preferences, and learning experiences by conducting focus groups, insights that are essential for effectively customizing teaching strategies to meet the varied learning styles and preferences of students. The plan's structured activities, responsible parties, and timelines ensure a systematic approach to implementation, with faculty members playing a pivotal role in executing these activities, leveraging resources such as curriculum alignment, instructional guides, and statistical analysis tools. In relation to gamification, the activity of reviewing the current rewards structure and its impact on engagement, surveying students for feedback on rewards effectiveness, researching best practices for incentivizing learning through gamification, and implementing a revised rewards system with initial feedback gathering was designed to optimize the rewards system within gamification and improve student engagement and motivation, and to regularly incorporate gamification techniques into the PATHFit 1 lesson, to be undertaken by PathFit 1 faculty every other semester using gamification software and tools along with faculty training. In relation to scaffolding, addressing the indicator on feeling more confident in tackling challenging assignments due to the support provided and on breaking down tasks into manageable steps, the activity of conducting an initial assessment of student needs and skill levels, identifying areas requiring additional support, and collaborating with experts in relevant fields to enhance scaffolding activities was designed to assess students' needs and collaborate with specialized instructors, to be undertaken by the school administration and the PathFit researcher or instructor every year using research papers and benchmarking activities. In relation to inquiry based teaching, addressing the indicator on the emphasis on problem solving and critical thinking skills improving the learning experience and on hands on activities and experiments deepening understanding of the concepts taught, the activity of collecting and organizing relevant student performance data, conducting statistical analysis to identify correlations, and presenting findings and initial interpretations was designed to analyze correlations between methodologies and performance and to identify potential trends and correlations, to be undertaken by PathFit 1 faculty every other semester using statistical analysis tools and data collection. In relation to collaborative learning, addressing the indicator on the learning process allowing connection of concepts and application to real life situations and on cooperative learning fostering problem solving and conflict resolution skills in Physical Education, the activity of assigning self-reflection activities after major lessons or projects, introducing reflective journaling as part of coursework, and encouraging peer to peer reflection discussions was designed to foster opportunities for self-reflection and to enhance critical thinking and metacognitive skills, to be undertaken by the PathFit 1 Curriculum Review Committee every semester using self-reflection activities and journal prompts. Finally, in relation to the utilization of teaching approaches and students' appreciation more broadly, the objective of improving the utilization of diverse teaching approaches and enhancing students' appreciation for learning was to be pursued by encouraging teachers to incorporate a mix of lectures, group discussions, hands on activities, and technology based tools in their lesson plans, to be undertaken by subject coordinators and teachers once a year using training manuals or guides and technology tools for interactive lessons, such as computers, tablets, and educational software. Overall, this action plan serves as a strategic roadmap, focusing on targeted improvements to teaching methodologies while considering students' needs and perceptions, offering a balanced approach to enhance the educational experience and optimize performance outcomes within PATHFit 1, and promoting an inclusive and effective learning environment.

Taken together, the findings of this study demonstrated that gamification, scaffolding, inquiry based teaching, exploratory approach, and collaborative learning were all utilized to a very extensive degree in PATHFit 1, with overall or average weighted means of 3.55, 3.59, 3.53, 3.57, and 3.56 respectively, and that students' level of appreciation of these varied teaching approaches was likewise high, with an average weighted mean of 3.69, interpreted as Highly appreciated. In terms of performance, the majority of the 200 students, specifically 135, were rated Excellent and 65 were rated Above average, with no students falling into the Average, below average, or Failed categories, reflecting a generally strong academic outcome within the program. At the same time, the correlational analysis revealed weak but statistically significant negative relationships between students' performance and both the extent of utilization of teaching approaches, at r equal to -0.059 and p equal to .036, and students' appreciation of these approaches, at r equal to -0.065 and p equal to .043, resulting in the rejection of the null hypothesis in both instances and indicating that the relationships observed, though modest in strength, were unlikely to have occurred by chance. Collectively, these results directly addressed the objectives of the study by describing, in detail, how the various teaching approaches were manifested and appreciated within PATHFit 1, and by establishing that a statistically significant, if weak and inverse, relationship exists between these approaches and student performance, a finding that nuances the assumption that greater utilization or appreciation of teaching strategies straightforwardly translates into better academic outcomes. This contribution is meaningful for the field of physical education pedagogy in that it affirms the value of gamification, scaffolding, inquiry based teaching, exploratory learning, and collaborative learning in fostering engagement, motivation, and a supportive learning environment, while also cautioning against an uncritical assumption that intensified use of such strategies alone guarantees improved performance, thereby pointing to the importance of balancing innovative teaching methodologies with attention to individual learning styles and other contextual factors. These findings, together with the proposed action plan designed to refine reward systems, strengthen scaffolding support, deepen inquiry-based analysis, foster self-reflection, and diversify instructional approaches, provide the empirical and practical foundation for the summary, conclusions, and recommendations to be presented in the succeeding chapter of this study.

CONCLUSION

This study determined the extent of utilization and level of students' appreciation of teaching approaches and students' performance in PATHFit 1, with specific attention to gamification, scaffolding, inquiry, exploratory, and cooperative learning approaches. It also examined the relationship among the extent of utilization of these approaches, students' appreciation, and their performance in the course. The study was anchored on Vygotsky's Socio-Cultural Theory, which emphasizes the importance of social interaction and cultural context in learning; Bandura's Social Learning Theory, which explains how observational learning and modeling influence students' perceptions of teaching approaches; and the Self Determination Theory of Deci and Ryan, which provides a lens for understanding students' intrinsic motivation and engagement in learning activities. Using a descriptive correlational research design, the study described the different teaching approaches and their specific indicators while also determining the relationship between teaching approaches, students' appreciation, and students' performance in PATHFit 1. Data were gathered through a researcher prepared questionnaire and analyzed using weighted mean for the extent of utilization and appreciation of teaching approaches, frequency count for the level of student performance, and Pearson's correlation to determine the relationship among the variables.

The findings showed that the utilization of gamification, scaffolding, inquiry, exploratory, and cooperative learning approaches in PATHFit 1 underscored the effectiveness of diverse teaching strategies in fostering student engagement and promoting learning in physical education. The students' level of appreciation indicated that the teaching strategies employed in the course were effective in encouraging participation and enhancing learning outcomes. Students' performance in PATHFit 1 was found to be within the excellent category, while most respondents obtained ratings in the above average category, indicating the positive influence of interactive and student-centered teaching approaches. The absence of students in the lower performance categories further suggested that effective interventions and support mechanisms were in place, reflecting a learning environment that prioritized academic excellence and student support within PATHFit 1.

The findings also revealed a significant negative correlation between the utilization of teaching approaches and students' performance, with $r = -0.059$ and $p < .036$, as well as between students' appreciation of teaching approaches and their performance, with $r = -0.065$ and $p < .043$. These results indicated slight tendencies for performance to decrease as the utilization or appreciation of teaching approaches increased. Although the correlations were negative, the findings may also suggest the need to examine how teaching approaches are implemented, how students respond to them, and how instructional strategies can be further refined to align with students' needs, readiness, and performance outcomes. Thus, the proposed action plan was developed to improve teaching methodologies while considering students' needs and perceptions, enhance the educational experience, optimize performance outcomes, and promote a more inclusive and effective learning environment within PATHFit 1.

Based on these findings, the study concludes that the incorporation of gamification, scaffolding, inquiry, exploratory, and cooperative learning through hands on and interactive approaches effectively supports the learning process in PATHFit 1 and reflects the principles of exploratory learning. These approaches contributed to a high level of student appreciation, while the strong consensus on the value of collaborative learning emphasized its important role in enriching the overall learning experience in PATHFit 1 classes. The students' appreciation of the teaching approaches also points to an opportunity to further improve the learning experience by refining peer interactions and strengthening instructor encouragement, which may lead to greater student engagement and motivation.

The study further concludes that although negative correlation coefficients were found between the utilization or appreciation of teaching approaches and students' performance, maintaining and improving these teaching approaches, together with fostering a supportive learning environment, may still help sustain student engagement, achievement, and overall success in PATHFit 1. The absence of students in lower performance categories supports the conclusion that existing interventions and support mechanisms were effective and that the course environment reflected a culture of academic excellence and student support. In this regard, the proposed action plan for teaching approaches and students' performance in PATHFit 1 may serve as a guide for maintaining and enhancing instructional practices that can continue to foster positive educational outcomes in the program.

In light of these conclusions, students are encouraged to actively participate in gamified and collaborative learning experiences, as these approaches can strengthen engagement, interaction, and skill development in PATHFit 1. To further enhance the learning experience, peer interactions should be refined and instructor encouragement should be strengthened because students' appreciation of the current teaching approaches presents an opportunity to further increase motivation and participation. Despite the negative correlations observed

between the utilization or appreciation of teaching approaches and student performance, it is recommended that these teaching strategies be maintained and improved while also sustaining a supportive learning environment. Such efforts may help preserve and further enhance student engagement, achievement, and overall success in PATHFit 1.

Furthermore, the existing interventions and support mechanisms should be continued and strengthened in view of the absence of students in lower performance categories. Sustaining these efforts can help maintain high performance and inclusive success in PATHFit 1 while reinforcing a culture that values academic excellence and student support. The action plan for teaching approaches in PATHFit 1 should also be maintained and continuously enhanced because it can strengthen the connection between instructional practices and student performance, thereby supporting sustained educational success in the program. Finally, future researchers are encouraged to conduct another study on the implementation of the proposed action plan to determine its effectiveness and further validate its contribution to improving teaching approaches and student performance in PATHFit 1.

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