

Grit as Key Determinant for Lifelong Learning Skills on PATHFIT: Risk Management Plan

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ABSTRACT

The study determined personal traits as a precursor for effective teaching strategies with the integration of grit as a key determinant towards transcending lifelong learning skills towards physical activities as a lifelong learning skills. Grit as a determinant in teaching PATHFit towards fostering perseverance for long-term physical activity goals, improves intrinsic motivation, promotes positive attitudes, and enhances self-discipline in students. It was concluded that high failure risk for intended outcomes low grit (perseverance/passion) as it was indicated that grit is crucial for sustaining effort over time and overcoming physical challenges, which are central to PATHFit. Without grit, students are less likely to persist in difficult, high-intensity, or repetitive physical activities, reducing the likelihood of physical improvement. It was concluded that the combination of low grit and moderate engagement creates a high probability that students will not complete the program, will participate with minimal effort, or will not achieve the desired improvements in cardiovascular endurance or strength, especially if the program is high-risk.

It was recommended to successfully implement PATHFit is to develop a tailored and adaptive instruction by adjust mobility exercises based on individual flexibility, range of motion, and physical control to prevent injury, especially in high-risk scenarios. Focus on a "progressively intensifying" approach rather than high-intensity immediately. Integrate technology for engagement to utilize digital tools, such as fitness trackers, apps, and portfolios, to increase interest and provide objective, non-threatening feedback, which helps manage low grit.

INTRODUCTION

It has been observed that Physical Activity towards Health and Fitness (PATHFit) pose a long-standing problem towards educating students on the importance of physical activities and its continuity and sustenance as a lifelong learning skills, as the program itself (PATHFit) failed to achieve its primary objective to empower students to engage in physical activity in their everyday life. The goal is to for students to learn and maintain balance, strength, and mobility through physical activity.

The challenge is to overcome barriers affecting the overall concept of physical activity, CHED CMO 39, Series of 2021, mandates the "Physical Activity Towards Health and Fitness" (PATHFIT) program as the new tertiary Physical Education course in the Philippines, replacing older physical education models to promote lifelong physical activity habits, build fitness and movement competency, and develop a healthy lifestyle for students through a flexible framework of four courses. The program is designed to foster

active living and advocacy for health, aligning with the constitutional mandate to promote physical education and enhance quality of life through movement and sports. However, the implementation is far from realization and that students feel obligated to participate in physical activities and not based on its very founding principles.

Abildso (2020) explained that common barriers such as lack of access to convenient facilities or designated spaces for exercise, whereas a well-designed built environment can serve as a strong facilitator of physical activities. Deslippe (2023) emphasize that personality traits, encompassed by grit and resilience, should be beneficial to overcome common barriers to physical activities. Grit serves as a determinant that encompasses passion and perseverance for long-term goals, acts as a crucial precursor to motivating resilience by providing the sustained commitment and effort needed to overcome challenges and bounce back from setbacks.

This poses as a challenge to the researcher as educators in physical education (PE) believe that grit is inherent commitment to a long-term vision fuels the drive to adapt and recover from adversity, making it a foundational element for developing resilience. By cultivating grit, individuals strengthen their ability to persist, a key component of resilience, leading to better goal attainment and overall well-being for students post PATHFit.

The study aims to determine personal traits as a precursor for effective teaching strategies with the integration of grit as a key determinant towards transcending lifelong learning skills towards physical activities as a lifelong learning skills. Grit as a determinant in teaching PATHFit towards fostering perseverance for long-term physical activity goals, improves intrinsic motivation, promotes positive attitudes, and enhances self-discipline in students. By maintaining passion and effort despite difficulties, gritty students are more likely to engage in and sustain physical activity, leading to better health and holistic development, even if their physical skills aren't superior.

Statement of the problem

The study aims to determine essential elements to sustain lifelong learning skills in PATHFit, determining key characteristics of Grit allows PATHFit teachers understand the importance of developing habits and behavioral change to prevent risk to achieve PATHFits' full potential.

The study specifically answers the following questions;

1. What is the level of risk towards the implementation of PATHFit in the absence of grit, in terms of;
 - 1.1 Sheer Will;
 - 1.2 Determination;
 - 1.3 Motivating resilience;
 - 1.4 Persistence;
2. What is the level of tolerability of Risk towards the implementation of PATHFit in the absence of grit?

REVIEW OF RELATED LITERATURE

Grit is defined as passion and perseverance for long-term goals, is associated with higher skill levels, greater sport-specific engagement, and positive psychological factors like self-efficacy. Studies have linked grit to increased deliberate practice, better perceptual-cognitive performance, and greater sport resilience. Factors influencing grit development include sport participation, family support, and support from coaches and teammates, which help athletes reframe setbacks.

Howard, Nicholson, Madson and Mohn (2022) explained that one of the most fundamental and intriguing topics for professionals in the realm of any youth sports training system is finding the distinguishing

psychological factors between prosperous and less successful players besides their physical capabilities - given that they undergo the same physical, tactical, and mental training - while identifying the players that possess the qualities to become professional athletes.

The study of the “grit” personality trait commenced in 2007 by Duckworth and colleagues, originating with the term’s definition, and the subject has now evolved to be a widely researched topic in psychology. Howard et. al., (2022) further explained that grit as a non-cognitive trait that influences an individual’s success and effectiveness through their committed perseverance toward long-term goals, sustained by passion even amid prolonged adversity. In essence, grit is described as “perseverance and passion for long-term goals”.

The emergence of this trait, however, is not confined to the 21st century: its origins trace back to the research questions formulated by Guszowska, et. al, (2021) sought an explanation regarding individual differences that determine success and effectiveness; specifically, what personality traits contribute to certain individuals achieving more and performing better than their peers. It was reported that some professions are associated with certain personality traits. For instance, extroversion is considered to be indispensable in a sales position, while for a writer, it is irrelevant. This line of reasoning continued with success, asserting that specific traits were imperative for success and high performance - such as the grit trait among prominent leaders, regardless of their field of Tian , Chen, Cui 2022).

Coutinho, et. al., (2021) define grit as maintaining a focused effort to succeed in a task, regardless of the challenges and the failure to overcome them. The grittier individuals are characterized by the fact that while others easily give up when experiencing setbacks, they remain in the “ring” and pull through in the face of adversity until they reach their goal (Rintaugu, 2022). By determination and perseverance, they are able to keep up with their initially more successful peers. The observations also showed that being talented is not enough: determination, thorough work, and practice are also key requirements.

Lee-Chua (2022) stated that grittier individuals tend to stand up and build on setbacks and challenges while others are more likely to abandon their efforts when they fail. Their reluctance, determination, and perseverance allow them to stay on par with their initially more successful peers Birr et al., 2023). In a more recent publication from 2016, Duckworth articulates that the grit trait is similar to any other personality trait: it is biologically and genetically predetermined to a certain extent and also shaped by environmental influences. In terms of grit, perseverance is 37%, and passion is 20% inheritable, however there is no gene specifically responsible for this trait. Nature and upbringing determine the emphasis of the grit trait, which may manifest in various areas of life.

A variety of recent researches has confirmed that in the academic field, grit can also be applied to predict academic performance [grade point average (GPA)¹, Scholastic Aptitude Test (SAT) or American College Test (ACT)] (and retention in the areas of military training, marriage, and sales.

Lyu, Ma, Hager, Porter (2022) also found that grit prediction exceeds the predictive capacity of college and graduate school GPA and the SAT/ACT results - as it provides a more accurate prognosis, concerning the results and success of an individual.

To sum up, grit has been studied extensively in a variety of achievement domains and has been consistently linked to success and an array of adaptive correlates. Although, the Grit Scale (english version) was only used recently in educational context in a Hungarian sample (Csizér et al., 2023). The main goal of our study was to fill a gap and investigate the factorial structure and measurement in variance, as well as the psychometric properties of the Grit scale in the Hungarian language and sports context. We aimed to validate the use of the Grit scale as a tool for coaches and sport psychologists, given that grit appears to

play a crucial role for coaches when making decisions about talent identification and development in athletes (Tedesqui and Young, 2020).

Researchers in sports tend to attribute elite performance to genetic talent. However, they do not offer comprehensive genetic descriptions that would determine the causal processes involved in the activation and expression of dormant genes in developing athletes during exercise, leading to the appearance of characteristic physiological and anatomical features (innate talent). Hair, Hult, Ringle, et al. (2021) claims that the evolution of the elite performance of healthy children can be calculated without the use of unique talent (genetic endowment) - except for the innate determinants of body size. However, the anthropometric differences are not negligible, the success of an individual in athletics is strongly determined by how much their anthropometric characteristics are similar to elite players' athletic prowess. The determining role of physical properties varies by sport and it is important to note, for example, as encountered in basketball or handball, that one cannot limit athletic evaluation to only one anthropological model.

Denovan and Dagnall (2023) explained that it is imperative to establish separate models regarding different positions and genders. Significantly, fundamental differences about a player's size and proportion are closely aligned to the various positions. In basketball, guards are typically the shortest team members, centers are the tallest in both genders, and forwards are usually in between the two heights (Gupta, McCarthy 2023). Besides the anthropometric differences, Ericsson's expert-performance approach shows that the distinctive characteristics of elite performers are adaptations to extended and intense practice activities that selectively activate dormant genes that all healthy children's DNA contains. The expert-performance approach has provided accounts for elite performance in several domains of expertise, such as music, ballet, chess, and medicine.

Baker, Young, Tedesqui, et al. (2020) explained that performance as the result of individuals' prolonged efforts to improve performance while negotiating motivational and external constraints. In most domains of expertise, individuals begin their childhood with a regimen of effortful activities (deliberate practice) designed to optimize development. Even among elite performers, individual differences are closely related to the extent of deliberate practice. Research has found that engagement in deliberate practice is one of the best predictors of expert performance (Bissett, 2023). Deliberate practice refers to activities that require cognitive or physical effort, do not lead to immediate personal, social, or financial rewards, and are aimed at improving performance. Many characteristics once believed to reflect innate talent are the result of intense practice extended for a minimum of 10 years. During the first phase of learning, novices try to understand the activity (Baker, Young, 2020), cited in Tedesqui, and McCardle (2020) added that everyday activities/everyday skills depending on the experience-performance.

In the middle phase of learning, the learners start to eliminate large mistakes and they no longer need to concentrate as hard to perform the task. After a limited period of training and experience—frequently less than 50 h for most recreational activities—an acceptable standard of performance is attained. Without further modifications and improvements, this typically leads to a stable plateau of performance as the performance is automated. With special practice, performance speed improves significantly across various domains, leading to notable changes in both cognitive and psychological capacities. Hair, Hult, Ringle, Sarstedt, Danks (2021), Ray research shows that individuals who eventually reach expert levels of performance do not begin their training with an exceptional level of performance, nor do they suddenly attain extraordinary display of abilities at any stage of development (Hair, Hult, Ringle et al. 2021)

The improvement of performance is gradual and generally takes several years of active pursuit to reach elite status. Even those who have historically been called “the most talented” usually do not win

international competitions in less than a decade Hair, Hult, Ringle et al. 2022), mathematics (Howard, Nicholson, Madson et al. (2021) tennis (Guszkowska, Wójcik 2021 swimming Coutinho, Ribeiro, da Silva 2021), and long-distance running (Lyu, et al 2022) Children, adolescents, and adults who are committed to achieving expert-level performance begin working with coaches and suggest new exercises that continue to challenge them and provide feedback on performance and opportunities to repeat the task (deliberate practice). Deliberate practice requires a focus on improving performance and involves two types of learning: improving one's existing skills and expanding the range and scope of one's abilities.

According to Cormier, Ferguson, Gyurcsik, et al. 2024. Wheatley (2021) deliberate practice, which was defined as engagement in structured activities created specifically to improve performance in a domain, introduces the "10,000h rule" proposed that a minimum of practice hours was necessary and that this number was "the magic number for true expertise: 10, 000 h." It has been treated as evidence that amateurs usually only practiced up to 3 h a week in their childhood. By the time they reached the age of 20, there were 2,000 h of practice behind them. Professionals gradually increased the number of hours per week up to 3 h a day or 20 h per week of exercise over a 10-year time interval. It takes the brain time to assimilate what is needed for masterful performance (Hair, Hult, Ringle, et al. (2021), Cormier Ferguson et al., (2024.). Although research showed that an extended period of training and practice was required to attain international-level performance, there was no evidence of a magical number. To win international piano competitions the first author estimated that around 25,000 h would be more accurate Hair, Hult, Ringle et al. (2021),

Hair et al. (2021), expert-performance approach has found ample evidence that children and adolescents do not spontaneously engage in the deliberate practice that ultimately leads to maximal performance. Consequently, children need help to identify the appropriate training activities, to learn how to concentrate, and to find the optimal training environments. An early introduction to instruction and supervised training in the domain is associated with a greater likelihood of reaching the highest levels in many different types of domains Hair et al, (2021). However, the maximization of deliberate practice is neither short-lived nor simple. The theoretical framework of expert performance explains the apparent emergence of early talent by identifying factors that influence starting ages for training and the accumulated engagement in sustained deliberate practice, such as motivation, parental support, and access to the best training environments and teachers.

Hair et al, (2021), highlights three limitations: the resource constraint, the motivational constraint and the effort constraint. To maximize gains from long-term practice, individuals must avoid exhaustion and must limit practice to an amount from which they can completely recover on a daily or weekly basis Hair et al. (2021),

Duckworth examined Hair's theory of practice cited in Bissett, Kroshus, Hebard (2020) and the grit trait, which concluded that grittier individuals not only learn more for Spelling Bee Baker, Young, et al, (2020). the international spelling contest, but also have a higher GPA and tend to get better scores on standardized tests, such as the SAT or ACT.

A noticeable difference in quality is also evident between contestants with varying placements (e.g.; Spelling Bee's top three vs. the others). The positive outcomes might be influenced by the tendency for people with higher levels of grit to engage in higher amounts of deliberate practice Baker, Young, Tedesqui, & McCardle, (2020). According to the scoping review of Cormier et al. (2021), several recent studies explored the relationship between grit and deliberate practice. In four cases, whole grit scores were positively correlated with hours spent in deliberate practice Bilalić, Đokić, (2023) Fawver et al., 2020)

while CI alone was significantly associated with the number of miles run per week in long-distance runners (Cousins et al., 2020).

Physical Exercise (PE) is defined as a subset of physical activity that is planned, structured, and repetitive, with the ultimate goal of enhancing or maintaining physical fitness. However, sustaining intentional health behaviors like PE requires more than just an awareness of its benefits; it necessitates substantial psychological determination.

In a study by Singh et al., (2020) in participating in regular physical activity entails substantial health benefits for children, even if the improvements in participation are moderate. Unfortunately, a majority of children do not meet current guidelines for physical activity, and the World Health Organization (WHO) states that it is urgent to implement effective programs and investments to intervene in the multiple causes and inequities that perpetuate low physical activity among students.

Li et al., (2024) explained that grit can be divided into two constructs: effort and consistency of interest. Perseverance has a direct and significant effect on one's intention to be physically active, but not on interest. Thus, this study focuses more on the perseverance construct of grit. Grit is the adherence and persevering attempts to meet long-term goals. The construct of grit includes perseverance of effort, consistency of interest, goal attainment, and passion.

Zhang et al., (2023) and Crea, (2022) discussed the when goal-directed actions reflect one's values and beliefs, an individual can begin to overcome adversity, and grit is a characteristic that can change and develop throughout life along with life experience. Demonstrated that grit is a significant predictor of physical activity, and the construct of grit has been applied to the attainment of physical activity, relative effort or physical activity intensity, and the amount of participation time. Lee et al., (2021) and Crea, (2022) cited a study on 397 Hispanic female students, grit and school attendance were the primary predictors of school success and may even be as strong of a predictor as physical fitness, which served as a proxy of health.

Moreover, grit has also been applied to the attainment of educational goals. In school, educational goals are primarily set by the teacher as an intermediary of the curriculum, but when goal setting is a shared experience and co-regulated through social interactions, one's pursuit of a long-term goal can be enhanced. In a study conducted by Tapia-Serrano et al., (2022) college student's physical activity can be accumulated in four possible ways: outdoor physical activity, including organized sports or play; physical activity during school hours; physical activity at home; and active transportation to and from places such as school. Garcia-Hermoso et al., (2023) this trend is particularly pronounced among college students, who often fail to meet these guidelines. Given large student population, addressing this issue here could have significant global implications. Empirical research indicates that the proportion of college students meeting the recommended physical activity levels is significantly lower than the global average, with over 80% failing to meet the guidelines.

In a study conducted by Pan et al., (2022) in a systematic review of relevant literature also confirmed this phenomenon, clearly pointing out that the overall physical health of Chinese college students is on a downward trend, mainly manifested in a year-on-year decrease in exercise. The lack of adequate physical exercise (PE) is not only closely associated with numerous physical health risks, such as hypertension, coronary heart disease, hyperlipidemia, and fatty liver, but also linked to a variety of mental health issues, including depression, sleep disorders, and anxiety (Kansagra, 2020; DelRosso et al., 2021; Pearce et al., 2022; Singh et al., 2023). Gao et al., (2021) explained that have shown that over 40% of college students report significant symptoms of depression and anxiety, which are often exacerbated by a sedentary

lifestyle a particularly concerning phenomenon. The issue is further compounded by the fact that college students are still in their developmental years, both physically and mentally, and habits formed during this period are likely to persist throughout their lives. Therefore, increasing PE levels among college students is crucial for improving their overall health and wellbeing.

In a study conducted by Terra et al., (2023) and Alhroub et al., (2024) explained that it has identified numerous barriers to PE, such as lack of time and resources (these models often overlook the critical role of positive psychological attributes that enable students to overcome such obstacles. Many earlier frameworks have focused more on prohibitive factors rather than on proactive traits that foster sustained engagement, leaving a significant gap in our understanding. (Millstein et al., 2020) explained that given that the benefits of PE, such as enhanced mood and resilience, require sustained effort and persistence, psychological traits like Grit become critically important. Grit, which encompasses sustained passion and perseverance for long-term goals, has gained recognition in the field of positive psychology. It is closely tied to Subjective Wellbeing and overall development (Hou et al., 2022; Kannangara et al., 2018).

Hull and Kim, (2020) discussed that PE is a key health-related behavior that boosts fitness, alleviates stress, and enhances mood. Given that higher Grit is linked to more frequent and intense PE in college students, it is crucial to delve deeper into how Grit influences exercise behaviors and the underlying psychological mechanisms. This line of inquiry can offer valuable insights for developing effective interventions to promote physical activity among college students.

Gorin et al., (2024) discussed that existing research has unveiled a correlation between Grit and PE frequency /intensity, but the pathways through which Grit exerts its influence remain elusive. However, the majority of this research has focused on the direct relationship, leaving the underlying psychological process largely unexplored. This constitutes a significant conceptual gap: we know that gritty individuals exercise more, but we do not know why or how. The study moves beyond a simple correlational analysis by proposing and testing a novel chain mediation model. We argue that grit does not operate in a vacuum; instead, it initiates a specific cognitive-motivational sequence. To address this gap, this study proposes and tests a chain mediation model. We hypothesize that personal growth initiative (PGI) and self-efficacy (SE) are pivotal in this process. Grit may foster PGI, which subsequently bolsters SE, and these two factors may serve as mediators in the relationship between Grit and PE. Therefore, the primary objective of this study is to investigate the chain mediating role of personal growth initiative and self-efficacy in the relationship between grit and physical exercise among college students.

The construct of grit is not without critics and limitations, in a study conducted by De La Cruz et al., (2021) explained that to understand the relationship between grit and physical activity in a school context. Given the lack of physical activity and the need to promote children's health in a sustainable way, students and their teachers are targets in a community to examine their perspectives on physical activity.

Schunk and (2020) Guelmami et al., (2022) discussed that College students' participation in PE is influenced by a variety of factors, among which personal psychological traits, especially Grit, play a key role (Messina et al., 2020). To understand why some students maintain regular participation in PE while others do not, it is essential to examine the role of psychological traits such as Grit. Grit, characterized by the sustained passion and perseverance needed to achieve long-term goals is a fundamental trait in this context. Cognitive provides a framework for understanding how such traits influence behavior. Within this framework, Grit can be conceptualized as a decisive personal factor that drives an individual's agency and determination, thereby influencing their behavioral choices and their persistence in the face of environmental or self-regulatory challenges in the exercise domain

Liu M. et al., (2024) and Longakit et al., (2025) discussed that an important psychological resource, grit can directly translate to PE-related behaviors, such as maintaining a consistent workout frequency (e.g., exercising 3-4 times per week), increasing the duration or intensity of sessions over time, and persisting with the exercise regimen despite academic stress or lack of motivation. The positive impact of Grit on healthy behaviors is mainly reflected in two aspects: mental health and behavioral participation.

Hou et al., 2022; Zhou et al., (2025) discussed that On the one hand, individuals with high Grit can maintain an optimistic and open-minded attitude when facing life's stress and setbacks, and are less easily swayed by negative emotions. On the other hand, individuals with high Grit exhibit higher self-discipline and proactivity in adopting healthy behaviors, effectively adhering to habits such as regular exercise and a balanced diet. Individuals with Grit, characterized by high goal commitment, are more likely to view regular exercise as a pathway for self-improvement when faced with PE, which promotes physical and mental health. PGI can further motivate these individuals to adjust strategies, overcome obstacles, and persistently achieve their exercise goals. Studies have demonstrated a significant correlation between Grit and PGI, with individuals who are highly gritty being more adept at breaking down long-term goals into phased plans and demonstrating stronger self-development motivation. While this connection has been established primarily in academic and professional settings in Western cultures, we expect this relationship to hold within the Chinese university context, where both perseverance and the drive for self-improvement are highly valued cultural ideals. PGI is also a key driver of positive behavioral change, closely related to the persistence and intensity of PE. Students with high PGI are more likely to persist in their exercise. Thus, PGI complements grit in ensuring long-term adherence; while grit provides the staying power to endure challenges, PGI provides the strategic direction and motivation for continuous improvement, preventing stagnation.

Theoretical background

Grit acts as a significant precursor for improving physical activities. Individuals with higher levels of grit—defined as passion and perseverance toward long-term goals—are more likely to engage in and adhere to regular, intense physical activity (PA) and achieve better performance outcomes.

Evaluation is essential for program to have continues learning and improvement especially in the implementation of PATHFit as a lifelong learning skills. It provides the implementers or PE teachers the status and the development of the program such improving services with the use of GRIT as a precursor towards sustaining lifelong learning skills. Conducting evaluation before developing a Risk Management allows the Physical Education Department of the different SUCs in the region to modify their strategies for more cost-beneficent services. With an evaluation, there will be a certainty as to the status and efficiency of the program and its implementation.

The study on Risk Management on the implementation of PATHFit using Grit as a precursor towards sustaining lifelong learning skills will be guided by the Context, Input, Process, Product (CIPP) evaluation by Stufflebeam (2003). The evaluation model is for guiding formative and summative evaluations of a program, such as, the evaluating risk and developing a management plan based on identified dangers and consequences if PATHFit could not be sustained after 2nd year.

The model will be utilized as an evaluations to be conducted by the researchers to look into the views and perspectives of PE teachers in the implementation of PATHFit among selected SUCs in Zamboanga City. According to Stufflebeam (2003) the CIPP evaluation model focuses on providing the foundation for deriving and validating particular evaluative criteria through an interactive relationship between the researcher and the PE Teachers. As gritty individuals are better equipped to overcome common obstacles

to exercise, such as time constraints, lack of motivation, fatigue, or setbacks like the disruption of the implementation of PATHFit as a lifelong learning skill. The perseverance component of grit is particularly important in sustaining effort despite challenges.

This evaluation model is founded on the approach that requires the researcher to operate on a foundation of trust and show respect to all PE teachers. In particular it provides a framework for detecting unexpected defects and strengths on the implementation of an organization in the implementation of a program, such as, risk, danger and consequences.

The CIPP evaluation model is used in conducting an evaluation, it can be for education or a public program like risk management on the implementation of PATHFit.

The context model can identify service providers' like the PE teachers learning needs and the student's needs. **The input** evaluation component can help identify a method that could better improve and help out a specific problem towards sustaining lifelong learning skills such as sheer wills, determinations, motivating resilience and persistence.

On the other hand, **the process** evaluation component monitors the implementation of PATHFit and its potential barriers, and identifies needs for project adjustments.

The CIPP evaluation model emphasizes "learning-by-doing" to identify corrections for problematic situations in an organization (institution). It was thus uniquely suited for evaluating emergent projects in a dynamic social context (*Alkin, 2004*).

As Stufflebeam emphasizes, the most fundamental theory of the model was "not to prove, but to improve" (*Stufflebeam and Shinkfield, 2007*). The proactive application of the model can facilitate decision making and quality assurance, and its retrospective use allows the faculty member/department heads, deans, directors and even executives to continually reframe and "sum up the project and/or program's merit, worth, probity, and significance" (*Stufflebeam and Shinkfield, 2007*).

The link between the unique features of the CIPP evaluation model and the need for a systematic comprehensive guiding framework for service-learning projects, such as, the integration of Grit as a key determinant towards the implementation of lifelong learning skills.

The Context, Input, Process, and Product evaluation model has a strong orientation to service and the principles of a free society. It calls for evaluators to identify and involve rightful beneficiaries, such as, the students, clarify their needs for enhancing physical activities and assess the services' merit, worth, significance, and probity.

In summary, the goal of the CIPP evaluation is to provide an accurate information to the PE teachers of a State University and College (SUCs) and make effective and efficient use of resources, time, and attitude in order to serve the well-being and targeted needs of rightful beneficiaries/students appropriately and equitably.

The researcher believed that the model can guide in the management of risk, dangers, and consequences within the institutions on the implementation of PATHFit, and to identify needs and planning for improving its implementation, monitor the process of implementation, and provide feedback and judgment of the programs' effectiveness for continuous improvement.

RESEARCH METHODOLOGY

The study was a quantitative and qualitative; descriptive research design focusing on the level of risk and tolerability in the implementation of PATHFIT in the absence of grit as basis for risk management plan, as well as the new platform of instruction in physical education as an advocacy for health and fitness.

The study was conducted among selected SUCs in Zamboanga City based on it highly populated students and area.

The researcher utilized the probability sampling technique. The sampling method that involves randomly selecting a sample, or a part of the population (physical education teachers and service physical education students) to determine the impact of PATHFIT as new platform towards maintain health and fitness.

Treatment of Data

Descriptive statistics was utilized to determine the level of risk and tolerability in the absence of Grit in the implementation of PATHFIT and the use of inferential statistics to determine the relationship and difference between the level of risk and tolerability in the implementation of PATHFIT in the absence of Grit.

Likelihood of Risk

Categories for likelihood of consequences in the absence of Grit	Unlikely to occur 1	Likely to occur 2	Fairly Likely to occur 3	Very likely to occur 4
Typical occurrence	25% chances of occurrence may result to minor impact on the implementation of PATHFit – affecting students physical activities	50% chances of occurrence may result to significant impact on the implementation of PATHFit – affecting students physical activities	75% chances of occurrence may result to severe impact on the implementation of PATHFit – affecting students physical activities	100% Chances of Occurrence may result to severe impact on the implementation of PATHFit – affecting students physical activities

To measure its tolerability, the following indicators are assume to prevent risk of failure to implement PATHFit in the absence of Grit.

Category of risk	Evaluation of tolerability
Low - 1	Tolerable: Treat the risk (by preparing a contingency plan)
Medium - 2	Acceptable: Tolerate the risk (in the case of unavoidable risks) Note: Tolerable however actions should be taken to reduce risks so that they become acceptable
High - 3	Fairly Acceptable in some degrees: Transfer the risk (such as by purchasing insurance, where applicable) Note: Tolerable however actions should be taken to reduce risks so that they become acceptable
Very High – 4	Untolerable: Terminate the risk (by withdrawing from an activity, for example) Note: Require immediate measures

Grit can be defined as passion and perseverance for long-term goals—is critical to sustaining PATHFit (Physical Activities Toward Health and Fitness) as a lifelong skill because it acts as the primary driver of exercise adherence, transforming temporary physical education into a lasting, healthy lifestyle. In the context of the Philippine Tertiary Education PATHFit curriculum, which aims to promote overall well-being through intentional movement and fitness, grit enables students to overcome common barriers to physical activity, such as time constraints, lack of motivation, and fatigue.

Absence of Grit in Term of Sheer Will	Mean Score	Interpretation
1. Demonstrate cumulative effort high achievers are able to apply a cumulative, high-quality, high-quantity effort to their lifetime work.	2.32	High Risk
2. Overcoming obstacles helps individuals overcome challenges, distractions, and plateaus that often accompany pursuing difficult goals.	2.34	High Risk
3. Real-world outcomes as a predictor of success in real-world situations, such as completing difficult training	2.51	High Risk
4. Challenge self to engage in activities that require significant effort and that may even be difficult or impossible	2.59	High Risk
5. Practice daily discipline that cultivate daily habits of focus and improvement to move toward your goals.	2.38	High Risk
6. Foster a growth mindset by nurturing the belief that one's abilities can be developed through dedication and hard work.	2.20	High Risk
7. Seek support by building supportive relationships and maintaining a positive outlook can also boost your ability	1.96	High Risk
8. Demonstrate unshakable determination to accomplish goal	2.16	High Risk
9. Perseverance of effort his is the tendency to pursue long-term goals with sustained effort despite setbacks and adversity.	2.13	High Risk
10. Uses experience of higher life satisfaction, optimism, and lower levels of depression, anxiety, and burnout.	2.38	High Risk
Average Mean Score	2.30	High Risk

***Reverse Computation:** 1.00 – 1.80 Very High Risk, 1.81 – 2.50 High Risk, 2.51 – 3.25 Moderate Risk and 3.26 – 4.00 Low Risk

The table showed the level of risk in the absence of grit in terms of sheer will was observed to be high risk to affect the chances of occurrence may result to severe impact on the implementation of PATHFit – affecting students' physical activities as a lifelong learning skills with an average mean score of 2.30. This implied that Based on the provided research, an absence of grit defined as a lack of perseverance and consistency of interest—poses a significant risk to the effectiveness of the Physical Activities Towards Health and Fitness (PATHFit) program. Because PATHFit aims to build long-term, self-regulated, and

independent learning skills, low student grit can severely disrupt the development of these lifelong physical habits. This can be observed when students do not challenge self to engage in activities that require significant effort and that may even be difficult or impossible with a mean score of 2.59, followed by when faced by real-world outcomes as a predictor of success in real-world situations, such as completing difficult training with a mean score of 2.51 and does not practice daily discipline that cultivate daily habits of focus and improvement to move toward your goals with a mean score of 2.38.

Grit is a significant predictor of physical activity. Without it, students are less likely to persist in exercise programs, especially when facing fatigue or physical challenges, lowering their engagement in the curriculum. Hence, disruption of lifelong learning on PATHFit aims to teach skills for lifelong health and reduce sedentary lifestyles. Abildso (2023) explained that low grit directly compromises this goal, as students are unlikely to maintain physical activity without the intrinsic drive to persevere in the face of obstacles.

Absence of Grit in Terms of Determination	Mean Score	Interpretation
1. Characterized by the consistency of effort over time, meaning individuals continue to work hard and show stamina, even when faced with challenges.	2.39	High Risk
2. Individuals learn from setbacks and continue to move forward despite failures.	2.29	High Risk
3. Tied to passion and perseverance for very long-term, personally meaningful goals.	2.47	High Risk
4. Involves cultivating courage, resolve, and strength of character, which are all components that support determination.	2.50	High Risk
5. Fueled by a passion for personally meaningful, long-term goals.	2.41	High Risk
6. What prevents that resolve from fading when faced with difficulty or boredom.	2.14	High Risk
7. Person views failures and setbacks as opportunities for learning rather than reasons to give up.	1.79	VeryHigh Risk
8. Drives individuals to engage in deliberate and consistent practice to develop their skills.	2.48	High Risk
9. Regular discipline builds the capacity for long-term perseverance.	2.17	High Risk
10. Connecting your ambitions to a larger, meaningful purpose will increase your motivation and make it easier to maintain determination when the work is hard.	2.24	High Risk
Average Mean Score	2.29	High Risk

***Reverse Computation:** 1.00 – 1.80 Very High Risk, 1.81 – 2.50 High Risk, 2.51 – 3.25 Moderate Risk and 3.26 – 4.00 Low Risk

The table showed the level of risk in the absence of grit in terms of determination was observed to be high risk to affect the chances of occurrence may result to severe impact on the implementation of PATHFit – affecting students’ physical activities as a lifelong learning skills with an average mean score of 2.29. This implied that when paired with high-risk determination (likely referring to erratic, intense, or unsustainable effort) creates a severe threat to the implementation of PATHFit, as a result without grit, students are less likely to maintain consistent participation in the moderate-to-vigorous physical activity (MVPA) required by the PATHFit curriculum. This can be observe when students do not involves cultivating courage, resolve, and strength of character, which are all components that support determination with a mean score of 2.50, followed by the lack of drives individuals to engage in deliberate and consistent practice to develop their skills with a mean score of 2.48, and tied to passion and perseverance for very long-term, personally meaningful goals with a mean score of 2.47.

However, a person views failures and setbacks as opportunities for learning rather than reasons to give up with a mean score of 1.79 indicated to have a Very High Risk to affect the implementation of PATHFit as lifelong learning skills this may result to High Attrition Rates. Deslippe, Soanes, Bouchaud, Beckenstein, Slim and Plourde et al. (2023) explained that that while students might start strongly (due to temporary motivation), they will likely drop out or significantly decrease effort when facing challenges, fatigue, or boredom. Hence, reduced effectiveness of learning as PATHFit aims to build movement competency and lifestyle habits. A lack of persistent effort means students will not master skills, limiting the program's ability to achieve its learning.

In the absence of Grit: resilience towards performing PATHFit will be difficult to;	Mean Score	Interpretation
1. Sustained passion and perseverance for long-term goals, provides the foundation for resilience.	2.41	High Risk
2. Ingrained perseverance motivates them to recover, pick themselves up, and continue pursuing their objectives.	2.28	High Risk
3. Long-term focus provides a powerful incentive to overcome obstacles, making individuals more likely to develop and maintain resilience as a means to reach those significant goals.	2.28	High Risk
4. Sustained passion component of grit fuels a deep commitment to achieving goals.	2.46	High Risk
5. A strong, underlying passion for a long-term goal provides the oxygen needed for grit to ignite and grow.	2.63	Moderate Risk
6. Considered a meta-competency because it enables the development of other valuable life skills, including resilience.	2.20	High Risk
7. Academic and professional settings, grit and resilience enable individuals to persevere, take initiative, and produce results.	1.69	Very High Risk
8. Research shows that having a sense of purpose provides strong motivation and determination, which builds resilience.	2.47	High Risk
9. Defined as "passion and perseverance for long-term goals".	2.37	High Risk
10. A key element of building resilience is learning from setbacks.	2.29	High Risk

Average Mean Score	2.31	High Risk
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***Reverse Computation:** 1.00 – 1.80 Very High Risk, 1.81 – 2.50 High Risk, 2.51 – 3.25 Moderate Risk and 3.26 – 4.00 Low Risk

The table showed the level of risk in the absence of grit in terms of resilience was observed to be high risk to affect the chances of occurrence may result to severe impact on the implementation of PATHFit – affecting students’ physical activities as a lifelong learning skills with an average mean score of with an average mean score of 2.31. This implied that the observed absence or low levels of grit (perseverance and passion) and resilience in students pose a high-risk, severe threat seen by high risk of non-adherence by students with low grit are less likely to sustain the effort required for physical activity, particularly when facing challenges such as fatigue, lack of interest, or time constraints. This was observed when students do not have a strong, underlying passion for a long-term goal provides the oxygen needed for grit to ignite and grow. With a mean score of 2.63, followed by not having a sense of purpose provides strong motivation and determination, which builds resilience with a mean score of 2.47 and could not sustained passion component of grit fuels a deep commitment to achieving goals with a mean score of 2.46. Consequently, it was noticeably the teachers and students have other views on Academic and professional settings, grit and resilience enable individuals to persevere, take initiative, and produce results with a mean score of 1.69 which indicated to very high. Gritty individuals tend to use self-regulation strategies (time management, effort regulation) to overcome obstacles. The absence of this trait implies students will struggle to manage their own exercise habits. Thus, without grit it places PATHFit as a failed program. Hein, Kalajas-Tilga, Koka, Raudsepp, and Tilga (2019) explained that without resilience, students are less likely to develop the consistent, long-term habits needed to combat sedentary lifestyles, failing to achieve the goals of the PATHFit program. Neglect of Physical Literacy: The absence of grit prevents the development of "kinesthetic intelligence" and independent learning, reducing the effectiveness of PATHFit as a tool for holistic health. Vulnerability to Setbacks: Students with lower resilience are more likely to drop out of physical education or extracurricular sports when encountering minor injuries or poor initial performance, limiting their capacity to see physical activity as a long-term investment in health.

Absence of Grit in terms of Persistence	Mean Score	Interpretation
1. Passion component provides the intrinsic motivation to continue, making persistence feel less like a chore and more like a necessary part of a deeply desired outcome.	2.40	High Risk
2. Perseverance aspect of grit helps individuals maintain focus and effort even after setbacks, allowing them to recover and continue working toward their goals.	2.33	High Risk
3. Specifically defined by a commitment to enduring interests and goals, not just short-term intensity, making it a more potent and enduring form of effort and persistence.	2.46	High Risk
4. Person views setbacks as opportunities for growth rather than insurmountable failures.	2.53	Moderate Risk

5. Passion for a meaningful, long-term goal provides intrinsic motivation, meaning the reward comes from the work itself, not just external factors like money or recognition.	2.41	High Risk
6. Provides the mental fortitude to push through phases of slow progress, boredom, and frustration when the initial excitement fades.	2.09	High Risk
7. Individuals engage in "deliberate practice," a daily, disciplined effort to target weak areas and improve skills, which builds sustained persistence over time.	1.86	High Risk
8. Maintaining focus and a deep, sustained passion for a single, long-term goal.	2.39	High Risk
9. Repeated practice of a skill creates stronger connections in the brain through myelination, which speeds up signal transmission.	2.29	High Risk
10. Perseverance strengthens psychological resources, such as emotional regulation and coping strategies, making future persistence more likely and effective.	2.17	High Risk
Average Mean Score	2.29	High Risk

***Reverse Computation:** 1.00 – 1.80 Very High Risk, 1.81 – 2.50 High Risk, 2.51 – 3.25 Moderate Risk and 3.26 – 4.00 Low Risk

The table showed the level of risk in the absence of grit in terms of persistence was observed to be high risk to affect the chances of occurrence may result to severe impact on the implementation of PATHFit – affecting students' physical activities as a lifelong learning skills with an average mean score of with an average mean score of 2.29. This implied that a lack of perseverance and passion for long-term goals—poses a "high risk" to the successful implementation of the PATHFit (Physical Activity Toward Health and Fitness) curriculum in the Philippines. This was manifested by the student believe that a person views setbacks as opportunities for growth rather than insurmountable failures with a mean score 2.53, followed by no commitment to enduring interests and goals, not just short-term intensity, making it a more potent and enduring form of effort and persistence with a mean score of 2.46 and no passion for a meaningful, long-term goal provides intrinsic motivation, meaning the reward comes from the work itself, not just external factors like money or recognition with a mean score of 2.41

Grit is a significant predictor of moderate to vigorous physical activity (MVPA). Students without this trait are less likely to engage in the consistent, high-intensity exercise required by PATHFit modules. Thus, may also lead to goal disconnection for syudents with low-grit, there is often a disconnection between fitness testing goals and actual physical behavior, leading to failure in meeting objective health standards. Cosgrove, Chen and Castelli 2018 explained that PATHFit is designed to build "movement competencies" that students should carry for life. Without persistence, students may treat the course as a temporary academic hurdle rather than a foundation for lifelong health.

The succeeding discussion presented the tolerability of risk for injury in PATHFit as this are subjective perspective viewed by the respondents of the study as manifested by level of student engagement.

Absence of student engagement	Mean Score	Interpretation
1. Keeps students motivated in to engage in physical activities.	2.41	Fairly Tolerability
2. Encourages strict compliance to exercise and nutrition.	2.28	Fairly Tolerability
3. Increases awareness on the importance of PATHFIT as an essential part of physical education.	2.28	Fairly Tolerability
4. Increases my alertness and attention to my physical health and fitness.	2.46	Fairly Tolerability
5. Enable students to participate activities which develop my sense of physical health and fitness	2.63	High Tolerability
6. Fosters collaboration and teamwork during activities	2.20	Fairly Tolerability
7. Serves as an avenue for motivation and determination	1.69	Low Tolerability
8. Provides opportunity to participate and engage in activities that requires physical, emotional and social well being	2.47	Fairly Tolerability
9. Develops sense of consciousness with nutrition.	2.37	Fairly Tolerability
10. Enables student to actively participate in extracurricular activities and improve engagement.	2.29	Fairly Tolerability
Average Mean Score	2.31	Fairly Tolerability

Legend: 3.26 – 4.00 Very High Tolerability, 2.51 – 3.25 High Tolerability 1.81 – 2.50 Fairly Tolerability 1.80 – 1.00 Low Tolerability

The table showed that the level of tolerability of risk in terms of absence of student engagement was observed to be fairly tolerable with an average mean score of 2.31. This implied that the level of tolerability of risk in student engagement is observed to be "fairly tolerable" despite low levels of grit, it can be implied that students are in a state of passive engagement or disengagement, where they accept challenging, risky, or boring situations without actively attempting to overcome them or, conversely, without dropping out immediately. Low grit indicates a lack of perseverance and passion for long-term goals, meaning students are easily distracted, lose focus on long-term projects, and struggle to maintain interest.

The students tolerate the implementation of PATHFit in spite the low levels of grit because the it enable students to participate activities which develop my sense of physical health and fitness with a mean score of 2.63, followed by PATHFit provides opportunity to participate and engage in activities that requires physical, emotional and social well-being with a mean score 2.47 and increases my alertness and attention to my physical health and fitness with a mean score 2.46.

Bibon (2021) explained that students with low grit and high risk tolerance (meaning they accept poor engagement levels) often have low academic enagement. They do not possess the "mental stamina" to persevere through challenges or setbacks, which are common in learning. Passive Coping Mechanism by the "fairly tolerable" observation suggests that instead of actively quitting (high risk intolerance) or

actively engaging (high grit), these students are likely going through the motions. They may feel "bored in class" or lack intrinsic motivation, but they remain physically present or compliant.

Absence of Informal Health Education	Mean Score	Interpretation
1. Provide easy to follow instructions during activities	2.40	Fairly Tolerable
2. Makes learning easy.	2.33	Fairly Tolerable
3. Provide chances for individual physical development	2.46	Fairly Tolerable
4. Develops health and fitness plan that are age appropriate	2.53	High Tolerability
5. Allows reward system at the end of activities.	2.41	Fairly Tolerable
6. Increase positivity towards individual perception of healthy lifestyle	2.09	Fairly Tolerable
7. Prevent risk for acquiring lifestyle diseases	1.86	Fairly Tolerable
8. Develops right attitude towards health and prevent illnesses.	2.39	Fairly Tolerable
9. Provides gradual improvement of physical, mental and social self (well – being)	2.29	Fairly Tolerable
10. Serves as a change agent and develop a sense of habit joining physical activities.	2.17	Fairly Tolerable
Average Mean Score	2.29	Fairly Tolerable

Legend: 3.26 – 4.00 Very High Tolerability, 2.51 – 3.25 High Tolerability 1.81 – 2.50 Fairly Tolerability 1.80 – 1.00 Low Tolerability

The table showed that the level of tolerability of risk in terms of Absence of Informal Health Education was observed to be fairly tolerable with an average mean score of 2.29. This implied Based on the observation that the risk of lacking informal health education is "fairly tolerable" when grit is low, it can be implied that individuals or communities in this scenario are vulnerable to long-term health risks because they lack the motivation, resilience, or "grit" to seek out or engage with health information, and they are willing to accept this precarious situation due to a lack of awareness of the danger or a sense of hopelessness. It can be observed that in the absence of informal education it was observe the development of health and fitness plan that are age appropriate with a mean score of 2.53, followed by providing chances for individual physical development with a mean score of 2.46 and allowing reward system at the end of activities with a mean score of 2.41.

The absence of informal health education (peer learning, informal community chats) means individuals lack access to, understanding of, and ability to use health information, which is known to lead to worse health outcomes and lower health literacy. Dizon, Leoveras, David, and Dela Rosa (2023) explained that the role of low grit by when individuals have low grit—low perseverance or passion for long-term goals they are unlikely to seek out this missing information, even if it is available, or to put in the effort required to change unhealthy behaviors. Implication thru apathy or resignation exists. They are likely aware, at some level, that their health knowledge is low, but they do not feel empowered to act on.

Absence of equipment and facilities implementation of Physical Activity	Mean Score	Interpretation
1. Maintaining standard for implementation with the right resources.	2.42	Fairly Tolerable
2. Provides complete development of a healthy mind, body and spirit.	2.25	Fairly Tolerable
3. Provide adequate chances for individual physical development	2.35	Fairly Tolerable
4. Uses holistic approach towards the individual overall development with physical activities.	2.40	Fairly Tolerable
5. Allows individual to learn and perform/demonstrate well roundedness	2.45	Fairly Tolerable
6. Uses technique and approaches that allows individual awareness on health and fitness to be lifelong skills.	2.17	Fairly Tolerable
7. Facilities and equipment towards the implementation of PATHFIT are within standards.	1.87	Fairly Tolerable
8. Well planned assessment and evaluation towards monitoring individual health and fitness	2.36	Fairly Tolerable
9. Suitable for improving students engagement and participation during physical activities.	2.39	Fairly Tolerable
10. Provide standard competencies during implementation	2.33	Fairly Tolerable
Average Mean Score	2.30	Fairly Tolerable

Legend: 3.26 – 4.00 Very High Tolerability, 2.51 – 3.25 High Tolerability 1.81 – 2.50 Fairly Tolerability 1.80 – 1.00 Low Tolerability

The table showed that the level of tolerability of risk in terms of absence of equipment and facilities implementation of Physical Activity was observed to be fairly tolerable with an average mean score of 2.30. This implied that Based on the observation that the risk of lacking equipment/facilities for physical activity is deemed "fairly tolerable" when grit (perseverance and passion) is low, the following implications can be drawn such as the acceptance of lower quality/safety standards a "fairly tolerable" assessment implies that participants or organizers are accepting of suboptimal conditions such as potentially unsafe, makeshift, or unmonitored environments rather than demanding safer, better-equipped alternatives. This was manifested when PATHFit allows individual to learn and perform/demonstrate well – roundedness with a mean score of 2.45, followed by maintaining standard for implementation with the right resources with a mean score of 2.42 and uses holistic approach towards the individual overall development with physical activities with a mean score 2.40.

Absence of equipment and facilities implementation of physical activity declines level of grit, it suggests a lack of long-term dedication or passion, which can lead to neglecting safety protocols (e.g., proper warm-ups or equipment checks) because the immediate, high-effort motivation to manage that risk is absent. Mellergers (2018) explained that the role of personality traits on goal commitment: A moderation analysis (Thesis). Department of Psychology, California State University, USA This may also result to high risk

of injury without adequate equipment or proper facilities, and without the persistence (grit) to find safer alternatives, the risk of musculoskeletal injuries is heightened, particularly if the participants are rushing into activity.

Absence of Standard implementation of Physical activities	Mean Score	Interpretation
1. Implements PATHFIT based on recommended standards	2.57	High Tolerability
2. Complete areas for implementation including classroom and/or activity areas.	2.36	Fairly Tolerable
3. Explains detailed information on PATHFIT	2.44	Fairly Tolerable
4. Provide complete materials and resources	2.46	Fairly Tolerable
5. Follows learning objectives and goals of PATHFIT	2.62	High Tolerability
6. Strengthens curriculum instruction on Physical Education	2.06	Fairly Tolerable
7. Follows principles in the implementation of PATHFIT	1.78	Low Tolerability
8. Provide fair and just opportunities for each student	2.29	Fairly Tolerable
9. Monitor student's performance using concrete and well develop rubrics	2.38	Fairly Tolerable
10. Provides well documented evaluative reports for improvement and bases for intervention	2.09	Fairly Tolerable
Average Mean Score	2.30	Fairly Tolerable

Legend: 3.26 – 4.00 Very High Tolerability, 2.51 – 3.25 High Tolerability 1.81 – 2.50 Fairly Tolerability 1.80 – 1.00 Low Tolerability

The table showed that the level of tolerability of risk in terms of absence of standard implementation of physical activities was observed to be fairly tolerable with an average mean score of 2.30. This implied that in the absence of standard implementation of physical activities, individuals with low grit defined by a lack of perseverance and passion for long-term goals face heightened risks to their physical health, mental well-being, and social adaptability. Behavioral and Motivational Implications. Hence, reduced persistence such gritty individuals use an "invest and accrue" model to overcome barriers like time constraints or setbacks. This can be seen when the program follows learning objectives and goals of PATHFIT with a mean score of 2.62, followed by the implements PATHFIT based on recommended standards with a mean score 2.57 with Provide complete materials and resources with a mean score of 2.46.

In contrast, it was found out that follows principles in the implementation of PATHFIT with a mean score of 1.78 indicated to be low Tolerability or not to be tolerated, since it implementation based on CHED Memo no. 39, which the guideline of its implementation failed to assess its sustainability and teachers must consider other factors such as behavior and/or attitude such as grit. Hence, those with low grit are more likely to yield to these obstacles without a structured, standard program to guide them. Thus, diminished self-efficacy such as grit facilitates "mastery experiences" that build confidence (self-efficacy). Without standard physical activity to provide these small successes, individuals with low grit may experience lower self-belief in their ability to maintain any healthy routine.

Conclusions

Based on the context of the Physical Activities Towards Health and Fitness (PATHFit) program, it was concluded that a high-risk implementation combined with low student grit and moderate engagement suggests that the program is likely to experience significant challenges in achieving its intended health and fitness outcomes such as its sustainability. It was concluded that high failure risk for intended outcomes is low grit (perseverance/passion) as it was indicated that grit is crucial for sustaining effort over time and overcoming physical challenges, which are central to PATHFit. Without grit, students are less likely to persist in difficult, high-intensity, or repetitive physical activities, reducing the likelihood of physical improvement. Moderate engagement while moderate engagement shows partial interest, it suggests a lack of deep, active, and consistent participation. It was concluded that the combination of low grit and moderate engagement creates a high probability that students will not complete the program, will participate with minimal effort, or will not achieve the desired improvements in cardiovascular endurance or strength, especially if the program is high-risk.

Lastly, it was concluded that a high-risk implementation with low student grit and moderate engagement indicates a likely disconnect between the designed curriculum and the students' readiness, leading to poor adoption, high attrition, and ineffective fitness outcomes unless significant remedial, personalized, and supportive interventions are introduced.

Recommendations

Based on the findings of the study PATHFIT implementation faces high risk due to low student grit (perseverance) and moderate engagement, recommendations focus on mitigating physical risk while bolstering motivation through tailored, supportive, and engaging strategies.

Key Recommendations for High-Risk PATHFIT Implementation:

1. Implement tailored and adaptive instruction by adjust mobility exercises based on individual flexibility, range of motion, and physical control to prevent injury, especially in high-risk scenarios. Focus on a "progressively intensifying" approach rather than high-intensity immediately.
2. Adopt small-group and cooperative learning such as reduce the visibility of individual performance to decrease anxiety and increase comfort, using small-sided games or circuits to increase movement in smaller, less intimidating groups.
3. Integrate technology for engagement to utilize digital tools, such as fitness trackers, apps, and portfolios, to increase interest and provide objective, non-threatening feedback, which helps manage low grit.
4. Enhance formative assessment and feedback by shifting from high-stakes testing to continuous, verbal, and written formative feedback (e.g., rubrics) to help students track their progress over time without high pressure.
5. Incorporate gamification and enjoyable activities since grit is low, boost motivation by incorporating fun, interactive activities, peer-led coaching, and team-based tasks that emphasize social interaction and enjoyment over purely competitive sports.
6. Prioritize safety and proper structuring to ensure proper form during exercise, incorporate structured rest periods between intense workouts, and provide clear, simple, and achievable goals.
7. Improve resources and support systems to ensure that facilities are safe and that there is adequate staff-to-student ratios to allow instructors to provide individual attention, which mitigates risk in both physical and motivational dimensions.

8. Prevent burnout in low-grit students, programs should start with low-intensity exercises and shorter durations, gradually increasing as stamina and confidence improve.
9. Active and varied methodologies by integrate gamification, educational games, and diverse physical activities to transform routine exercise into a more dynamic and motivating experience.
10. Goal alignment by use student-centered techniques that align fitness activities with students' personal health and life goals to increase the "meaningfulness" of the curriculum.

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