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THE INFLUENCE OF MULTIDIMENSIONAL SITUATIONAL INTEREST ON STUDY ENGAGEMENT IN THE UNIVERSITY PHYSICAL EDUCATION LEARNING ENVIRONMENT IN THE PHILIPPINES

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Wpływ wieloaspektowego sytuacyjnego zainteresowania na zaangażowanie studentów w zajęcia kultury fizycznej w środowisku akademickim na Filipinach

Streszczenie

W badaniu tym zagłębiono się w dynamikę sytuacyjnego zainteresowania (SI) WF w środowisku szkolnictwa wyższego na Filipinach, wyjaśniając, w jaki sposób SI może katalizować zaangażowanie studentów. W badaniu wzięło udział 1096 studentów pierwszego i drugiego roku, odpowiadali oni na pytania zawarte w instrumentach samoopisowych mierzących zainteresowanie sytuacyjne i zaangażowanie w naukę. Kluczowe ustalenia podkreślają, że specyficzne aspekty SI, takie jak postrzegane wyzwanie, możliwości eksploracji i natychmiastowa przyjemność, mają kluczowe znaczenie dla rozpalania SI, co z kolei sprzyja głębszemu zaangażowaniu. Aspekty takie jak nowość i jakość uwagi nie przewidywały w znaczący sposób zaangażowania, co sugeruje zróżnicowaną interakcję między SI i jej aspektami. Badanie podkreśla potrzebę ukierunkowania programów na włączenie zadań stymulujących intelektualnie i eksploracyjnych, które z większym prawdopodobieństwem będą zgodne z wewnętrznymi motywacjami studentów. Badanie to podkreśla strategiczne planowanie pedagogiczne mające na celu przekształcenie wychowania fizycznego w bardziej dynamiczny, włączający i skuteczny element szkolnictwa wyższego, przyczyniający się do rozwoju osób dbających o zdrowie.

Słowa kluczowe: wychowanie fizyczne, zainteresowanie sytuacyjne, zaangażowanie w naukę.

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Abstract

This study delved into the dynamics of situational interest in PE within the higher education environment of the Philippines, elucidating how SI can catalyse student engagement. 1,096 first- and second-year students participated by answering self-report instruments measuring situational interest and study engagement. Key findings highlight that specific dimensions of SI such as perceived challenge, exploration opportunities, and instant enjoyment are pivotal in igniting SI, which in turn fosters a deeper engagement. Dimensions like novelty and attention quality did not significantly predict engagement, suggesting a nuanced interplay between SI and its dimensions. The research emphasizes the need to direct programs towards incorporating intellectually stimulating and exploratory tasks, which are more likely to align with students' intrinsic motivations. This study underscores strategic pedagogical planning to transform PE into a more dynamic, inclusive, and effective component of higher education, contributing to the development of health-conscious individuals.

Keywords: physical education, situational interest, study engagement.

Introduction

'Interest' holds a pivotal position within the field of educational psychology, as scholars have identified it as a powerful catalyst for both learning and engagement. According to Hidi & Renninger (2006), interest may be defined as a psychological state that influences the manner in which individuals interact with educational material. This concept holds a significant value in the field of education as it facilitates the development of profound and significant learning encounters. Silvia (2006) categorized interest into two types: *'situational interest,'* which is transient and triggered by particular situations, and *'personal or individual interest,'* which is more long-lasting and connected to individual preferences. Krapp (2002) delved more into the examination of interest in the context of learning, positing that it plays a crucial role in augmenting motivation and the overall quality of learning through its alignment with individuals' personal goals and beliefs. The dynamic nature of interest is examined by Ainley et al. (2002), highlighting its capacity to vary and intensify when individuals engage in activities that foster curiosity. In their study, Renninger and Hidi (2011) underscored the dynamic nature of interest, demonstrating how early curiosity can transform into a long-lasting personal interest that motivates continued involvement and acquisition of knowledge. Every one of these viewpoints highlights a different dimension of interest and its vital function in classrooms, impacting the way students engage with and acquire knowledge.

Review of Scholarly Literature

Situational Interest in Physical Education

It is true that *interest* is a crucial factor within the field of physical education, serving as a substantial catalyst for students' involvement, perseverance, and pleasure in physical endeavours. When students demonstrate enthusiasm for the activities offered in physical education classes, they are more inclined to engage actively, acquire knowledge more efficiently, and cultivate a lasting inclination towards physical activity. Research has demonstrated that integrating aspects of novelty and choice in physical education can greatly improve students' situational interest (A. Chen & Wang, 2017; S. Chen et al., 2021). An example that demonstrates this is the incorporation of unconventional sports or activities, such as ultimate frisbee or parkour, within the educational program. These activities may deviate from students' regular experiences and stimulate their inquisitiveness (Högman & Augustsson, 2023). An additional effective approach is giving students the opportunity to select from a variety of activities or customize specific elements of the lesson according to their own interests. This approach fosters autonomy and cultivates a sense of ownership in relation to their educational journey (González-Cutre et al., 2020). These strategies not only facilitate the improvement of physical skills but also foster a favourable disposition towards physical education and an inherent drive to engage in physical activity outside the confines of school.

Specifically, A. Chen et al. (1999) characterized *'situational interest'* in physical education as a complex construct consisting of various dimensions. Every dimension signifies a distinct facet of the interplay between an individual and an activity, which has the potential to elicit or augment situational interest. According to A. Chen et al., this construct is divided into five distinct dimensions: novelty, challenge, exploration intention, attention quality, and instant enjoyment. The *'novelty'* dimension focuses on introducing original and distinctive activities to ignite students' interest. The study conducted by Fierro-Suero et al. (2020) examined the impact of novelty on students' intrinsic motivation, specifically in relation to the assistance provided by physical education teachers. This may involve incorporating emerging sports or non-traditional physical activities that are not commonly included in the educational curriculum. The study highlights the relevance of novelty in PE and its favourable influence on students' motivation. Furthermore, the *'challenge'* dimension pertains to the active involvement of students in activities that surpass their established boundaries, hence fostering interest by generating a feeling of achievement. According to González-Cutre and Sicilia (2019), the satisfaction of the demand for challenge has the potential to cultivate intrinsic motivation and yield favourable academic outcomes in the field of physical education. One potential approach is to provide instructional

tasks that are slightly more challenging than the students' existing skill levels, thereby fostering the acquisition of new competencies and enhancing their resilience. Meanwhile, *'exploration intention'* pertains to the level of independence granted to students in order to explore on their own and actively participate in the subject that individually captivates them. In their investigation, Fernández-Espínola et al. (2020) examined the relationship between the satisfaction of the need for exploration, autonomy, competence, and relatedness, and their ability to predict autonomous motivation and the intention to engage in physical activity among students in physical education. Methods to cultivate this dimension include providing learners with activity opportunities or encouraging them to establish individual objectives. Moreover, *'attention quality'* is attained by engaging in tasks that demand concentrated engagement. Aibar et al. (2021) investigated the impact of teaching practices which accommodate students' needs on their satisfaction with basic psychological requirements, satisfaction with novelty, and intention to engage in physical activity. Engaging activities that hold students' complete focus, including skill development sessions or interactive games, can greatly enhance this aspect. Lastly, *'instant enjoyment'* emphasizes the immediate pleasure obtained from engaging in physical exercises. In their study, Hsu et al. (2023) investigated the impact of novelty satisfaction and the fulfilling of basic psychological requirements on students' enjoyment and effort in remote physical education during the COVID-19 epidemic. The integration of enjoyable and captivating activities that students anticipate can augment this dimension, resulting in heightened positive perceptions towards physical activity.

Study Engagement of University Students in Physical Education

'Study engagement' encompasses a holistic approach to students' involvement in physical activity and programs aimed at promoting health (Li et al., 2021). According to Jaya and Ariyanto (2021), this construct comprises three interrelated components, namely vigour, dedication, and absorption. *'Vigor'* pertains to the level of energy, passion, and active engagement exhibited by students during physical activities and sports (Demirbatır, 2020; Pulido-Martos et al., 2020). Students have a strong desire to actively engage in physical education programs, displaying excitement and energy in their embrace of opportunities for physical activity, exercise, and skill enhancement. Furthermore, *'dedication'* necessitates students to demonstrate unwavering commitment and perseverance in upholding a state of well-being and engagement in physical activities (Listau et al., 2017). It pertains to their commitment on allocating time and exerting effort towards improving their physical fitness, refining motor skills, and adopting enduring routines of regular exercise and health-related behaviours. Lastly, *'absorption'* refers to the extent to which students are cognitively en-

gaged and attentive throughout physical activities and fitness programs (Koob et al., 2021; Rautanen et al., 2021). It involves an elevated level of concentration and cognitive engagement, wherein students are fully engrossed in the physical activities and novel challenges they encounter. Students may potentially encounter a state of absorption in physical education programs, when they perceive themselves as completely immersed in the present moment and derive heightened levels of happiness and satisfaction from their active engagement. By prioritizing vigour, dedication, and absorption in the course, instructors can improve students' well-being, physical fitness, and commitment to healthy living behaviours. This facilitates a holistic learning experience that encompasses both the intellectual and physical dimensions of education. Estévez et al. (2021) stressed that the three components of study engagement have distinct characteristics, although they demonstrate a robust interconnectedness.

However, one significant problem in higher education institutions is the limited engagement of university students in physical education courses (Ferreira Silva et al., 2022). The disinterest and lack of engagement in physical education among students can be attributed to various factors, including academic restraints, schedule challenges, and a cultural emphasis on academic subjects over physical activity (Moore et al., 2023; Wilson et al., 2021). The significance of this pattern is concerning as physical education plays a vital role in improving students' overall health, well-being, and academic performance. Moreover, the last COVID-19 pandemic has posed growing challenges for students to engage in physical education as a result of restrictions on in-person classes and restricted availability of outdoor areas, thereby limiting opportunities for physical activity (Frömel et al., 2023). The current context underscores the significance of addressing the inadequate participation of university students in physical education, highlighting the imperative need for effective strategies to promote student engagement and well-being amidst these intricate challenges (Arık & Erturan, 2023; Behzadnia et al., 2023; Granero-Gallegos et al., 2023).

Study objectives and hypotheses formulation

Recently published studies have indicated that situational interest has an immediate influence on academic engagement in the field of Physical Education (Roure et al., 2019; Wang et al., 2022; Zhu et al., 2009). In contrast, the majority of the research studies pertaining to the current inquiry were conducted at educational institutions located outside the Philippines, which suggests the necessity for further research in this area. Furthermore, studies that were conducted examining the direct influence of each dimension of situational interest on study engagement and its components is still undocumented. This study aimed to investigate the immediate influence of situational interest on the level of study

engagement among university students in a specific higher education institution in the Philippines. The current investigation focused on examining the following hypotheses, which is illustrated in Figure 1.

H_1: Study engagement can be predicted by situational interest and its dimensions:
H_{1a}, H_{1b}, H_{1c}, H_{1d}, H_{1e}: NV, CL, AQ, IE and EI

H_2: Vigour cannot be predicted by situational interest and its dimensions:
H_{2a}, H_{2b}, H_{2c}, H_{2d}, H_{2e}: NV, CL, AQ, IE and EI

H_3: Dedication cannot be predicted by situational interest and its dimensions:
H_{3a}, H_{3b}, H_{3c}, H_{3d}, H_{3e}: NV, CL, AQ, IE and EI

H_4: Absorption cannot be predicted by situational interest and its dimensions:
H_{4a}, H_{4b}, H_{4c}, H_{4d}, H_{4e}: NV, CL, AQ, IE and EI.

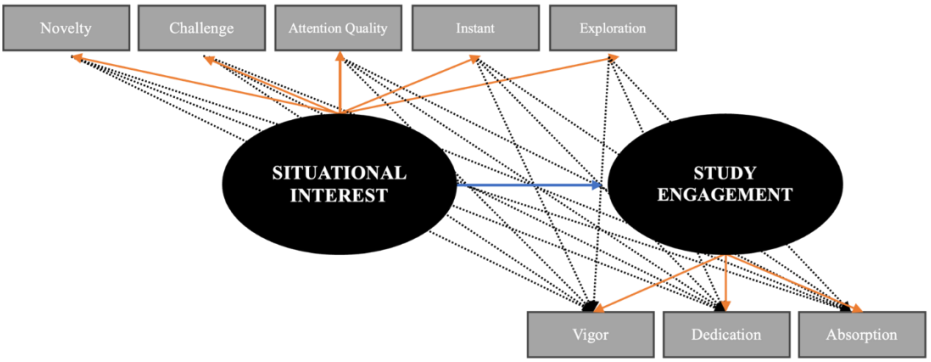

Figure 1
Conceptual Framework of the Study

Method

Research Design

This present study is quantitative in nature and has utilized predictive design. It is a type of research design used to explore the relationships between variables and to predict future outcomes based on these relationships (van Witteloostuijn et al., 2022). It focuses on identifying and measuring the strength and direction of associations between variables to make predictions about one variable based on another. In this regard, this study examined situational interest and its components' direct influence on study engagement.

Participants and Sampling Technique

The respondents in the research investigation are first- and second-year undergraduate students presently attending in the 2nd Semester of the Academic

Year 2023-2024 at a State University in the Philippines. The study specifically concentrated on these year levels because minor physical education classes are only available during the first and second semesters for first- and second-year students. Data from the respondents was obtained using purposive sampling technique. *Purposive sampling* involves intentionally selecting respondents or cases with specific attributes of interest to achieve the research goals (Rahman et al., 2022). This technique strives to offer a concentrated and precise sample that can successfully address the research questions at hand. Subsequently, the specified attributes will be used to choose the participants for the study:

1. First- or second-year students currently enrolled in Physical Education 2 (PATH-Fit 2) and Physical Education 4 (PATH-Fit 4) during the 2nd Semester, Academic Year 2023-2024 at the University; and
2. Across all spectrums of gender.

At present, 6,000 first- and second-year students are enrolled in Physical Education 2 and Physical Education 4, for a total student body of 6,000. With a confidence level of 95% and a margin of error of 5%, the exact sample size of 362 is required to ensure statistical power and precision, and was calculated using the *Raosoft Sample Size Calculator*. Interestingly, 1,455 students participated in the online survey. After conducting the data cleansing procedure, the final tally stood at 1,096 responses, which corresponds to a response rate of 75.33%.

Instruments

The survey questionnaire that was used to obtain data from the respondents is subdivided into three parts:

1. The first part obtained data about respondents' demographic characteristics (i.e., sex and year level).
2. The second part consist of the **Situational Interest Scale** by A. Chen et al. (1999). It is a measurement tool designed to assess situational interest in physical education contexts. It consists of 19 items that capture various dimensions of situational interest, including novelty (e.g., *"This is a new-fashioned activity for me to do."*), challenge (e.g., *"This activity is a demanding task."*), exploration intention (e.g., *"I like to find out more about how to do it."*), attention quality (e.g., *"My attention was high."*), and instant enjoyment (e.g., *"It is an enjoyable activity to me."*). Respondents rate each item to indicate the extent to which they experience interest or enjoyment in a specific activity or task during physical education classes. Responses can be recorded on a 5-point Likert scale ranging from 1 (very untrue) to 5 (very true).
3. The last part is the **Utrecht Work Engagement Scale for Students (UWES--9S)** by Carmona-Halty et al. (2019). This particular scale is a nine-item self-report instrument that measures overall university engagement in Physical

Education classes. Also, this particular instrument is subdivided into three unique features: Vigor (e.g., *"I feel energetic and capable when I'm studying or going to class."*), Dedication (e.g., *"I am proud of my studies"*), and Absorption (e.g., *"I get carried away when I am studying"*). A 6-point Likert scale ranging from 0 (never) to 6 (always) is used to evaluate each items.

Normality estimations, reliability tests, and inter-variable correlational analysis were conducted on the study's instruments. Performing normality estimates, reliability, and inter-variable correlational assessments at the beginning ensures that the data meet the assumptions for valid statistical analysis, that the measures are consistent, and that the relationships between variables are understood, which lays the foundation for accurate and reliable research findings. As seen in table 2, the majority of the variables met the 2 and -2 thresholds, as evidenced by the skewness and kurtosis values, showing that the data is normally distributed. Furthermore, the reliability tests revealed that all of the instruments are very reliable, with Cronbach's Alpha values ranging from .84 to .96. Lastly, the inter-variable correlational analysis unraveled that all the variables are interrelated to each other ($p < .05$).

Table 1
Normality estimates, reliability, and inter-variable correlational assessment

Variable	Mean ± SD	*Skew*	*Kurt*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
NV	3.60 ± .92	-.279	-.331	(.89)							
CL	3.63 ± .82	-.276	-.060	.81**	(.84)						
AQ	3.68 ± .85	-.342	-.139	.73**	.88**	(.86)					
IE	3.79 ± .83	-.464	-.069	.69**	.84**	.94**	(.85)				
EI	4.04 ± .90	-.960	.704	.64**	.74**	.76**	.82**	(.94)			
VI	3.61 ± .81	-.095	-.181	.51**	.62**	.61**	.61**	.59**	(.92)		
DE	3.83 ± .85	-.590	.068	.49**	.61**	.60**	.64**	.66**	.74**	(.85)	
AB	3.61 ± .86	-.076	-.234	.45**	.56**	.55**	.55**	.54**	.68**	.76**	(.96)

Note: **. Correlation is significant at the 0.01 level (2-tailed).
Legend:
NV – Novelty, CL – Challenge, AQ – Attention Quality, IE – Instant Enjoyment, EI – Exploration Intention, VI – Vigour, DE – Dedication, AB – Absorption

Statistical Analysis

The present study has used *cross-tabulation* analysis. It is a contingency table that displays the frequency of respondents in terms of gender and year level. Lastly, a *predictive analysis* specifically the *multiple linear regression* has been performed to determine the direct influence of Situational interest on Study engagement. Furthermore, all dimensions of situational interest are regressed to each of the components of study engagement.

Ethical Statement

This study was conducted in accordance with the World Medical Association Declaration of Helsinki. The study protocol was reviewed and approved by the Research Management Office of the Bulacan State University as Independent Research (Self-funded). All participants provided written informed consent to participate in this study. Highest Ethical considerations were strictly followed in the conduct of the study. The data gathering was conducted through online survey using Google Forms. In the Google Forms, the purpose of the study, inclusion criteria, instruments to be used, and the components/variables which will only be measured in the entire conduct of the study are presented. Additionally, the researchers provided the benefits of the study to the institution, community, and its contribution to scientific knowledge. The online survey underlined that participating in the study is voluntary, and respondents can choose to withdraw at any moment. The respondents were similarly advised of the potential minor hazards associated with their involvement in the research, including the experience of unease when responding to personal and/or sensitive survey inquiries. In addition, respondents were informed that there is no monetary compensation associated with providing information for the study. The respondents were additionally informed regarding the information that would be gathered via Google Forms and transferred to an Excel file for evaluation. The protected password for this data was disclosed, with only the researchers granted personal access to it. Additionally, they were informed that the aforementioned data would be stored on a USB drive for a duration of three (3) months, after which it would be irrevocably removed from the system. Additionally, respondents were notified that the data that was obtained would no longer be utilized in any subsequent or secondary research. Withdrawal of respondents' participation in the study will not have any adverse effects on their relationships with the involved researchers or research organizations, nor will it affect their contributions to any future services or current programs. In order to maintain the anonymity and confidentiality of the respondents, their identities and names were withheld throughout the data collection, analysis, and reporting of the study's findings. Due to the aforementioned conditions, respondents were at any moment permitted to withdraw from the study or request a debriefing. All the respondents' information was securely protected in accordance with the Data Privacy Act of 2012, also known as Republic Act 10173.

Results

Table 2 presents a cross-tabulation of college students by year level and gender, with a total sample size of 1096 students. The distribution shows that there are 470 male students and 626 female students. Looking at the year level distri-

bution, 60.1% of the total sample size are first-year students (659 students), while 39.9% are second-year students (437 students). Within the male student group, the majority (64.3%) are in their first year, while the remaining 35.7% are in their second year. Female students are more evenly distributed across the two year levels, with a slight majority in the first year at 57.0% and 43.0% in the second year. In terms of proportional representation within year levels, male students make up 45.8% of the first-year student population and 38.4% of the second-year student population, whereas female students comprise a higher percentage, accounting for 54.2% of first-year students and 61.6% of second-year students. Lastly, when looking at the entire sample size, male students account for 42.9%, and female students represent a larger proportion at 57.1%.

Table 2
Crosstabulation of the respondents' demographic characteristics based on gender and year level

			Year Level		Total
			1st year	2nd year	
Sex	Male	Count	302	168	470
		% within Sex	64.3%	35.7%	100.0%
		% within Year Level	45.8%	38.4%	42.9%
		% of Total	27.6%	15.3%	42.9%
	Female	Count	357	269	626
		% within Sex	57.0%	43.0%	100.0%
		% within Year Level	54.2%	61.6%	57.1%
		% of Total	32.6%	24.5%	57.1%
Total		Count	659	437	1096
		% within Sex	60.1%	39.9%	100.0%
		% within Year Level	100.0%	100.0%	100.0%
		% of Total	60.1%	39.9%	100.0%

As can be seen in Table 3, it was observed that SI predicts SE, suggesting that SI is directly related and positively influences SE [$F(5, 1090) = 214.121$, $p < .001$]. Additionally, the $R^2 = .496$ construes that the model accounts for 49.6% of the variance in SE. The finding implies that the active and enthusiastic engagement of students in physical education classes is more likely to occur when they possess a heightened sense of interest in the activities and exercises provided. Additionally, the coefficients were also examined determining each SI dimensions' direct influence to SE. First, NV ($\beta = -.038$, $t = -1.240$, $p = .215$), AQ ($\beta = .062$, $t = .915$, $p = .361$), and IE ($\beta = .096$, $t = 1.401$, $p = .161$) were not found to have a direct influence to SE. On a positive note, CL ($\beta = .295$, $t = 5.975$, $p < .001$) and EI ($\beta = .258$, $t = 7.854$, $p < .001$) were found to be predictors of SE. The results

suggest that there is no immediate influence of certain dimensions, such as novelty, attention quality, and instant enjoyment, on students' study engagement in physical activities. Nevertheless, the analysis emphasizes that when considering situational interest, dimensions such as the level of difficulty associated with physical tasks and the inclination to seek novel experiences are strong predictors of students' study engagement in physical education courses. The findings underscore the need of designing physical education settings in an approach that offers engaging challenges and chances for exploration, thereby cultivating a more profound and long-lasting enthusiasm for physical activity among students.

Furthermore, it was found that SI predicts VI [$F(5, 1090) = 163.219$, $p < .001$], postulating that SI directly and positively influences VI. Additionally, the $R^2 = .428$ construes that the model accounts for 42.8% of the variance in VI. The findings emphasize the significance of situational interest in promoting students' vigour, suggesting that when students are truly involved and interested in their academic and/or physical activity responsibilities, they are more likely to feel a heightened sense of energy and enthusiasm. These insights can be utilized by educators to create learning environments that prioritize interesting and relevant experiences, thus fostering increased dynamism among students. After examining each coefficient to determine each SI dimensions' influence on VI, it was seen that challenge ($\beta = .308$, $t = 5.536$, $p < .001$) and exploration intention ($\beta = .220$, $t = 5.928$, $p < .001$) were predictors except for the novelty ($\beta = -.016$, $t = -.474$, $p = .636$), attention quality ($\beta = .088$, $t = 1.146$, p .252) and instant enjoyment ($\beta = .068$, $t = .874$, $p = .383$). It became evident that challenge and exploration intention emerged as significant predictors of vigour in relation to situational interest. Conversely, dimensions such as novelty, attention quality, and instant enjoyment did not demonstrate any predictive capacity. These findings suggest that educators should prioritize activities that offer intellectual stimulation and chances for exploration in order to boost students' vigour, rather than only focusing on features associated with novelty or instant enjoyment.

Moreover, it was uncovered that SI predicts DE [$F(5, 1090) = 200.264$, $p < .001$], construing that SI directly and positively influences DE. Additionally, the $R^2 = .479$ construes that the model accounts for 47.9% of the variance in DE. The result indicates that students' situational interest significantly influences their dedication to physical activities. Through cultivating an inherent drive and active participation in physical education classes, instructors can encourage students' dedication to upholding a dynamic and health-conscious way of life, ultimately resulting in enhanced physical fitness and overall well-being. Each coefficient was also examined to determine each SI dimension's influence on DE. After thorough analysis, it was observed that challenge ($\beta = .264$, $t = 4.720$, $p < .001$), exploration intention ($\beta = .363$, $t = 9.754$, $p < .001$) and instant enjoyment ($\beta = .256$, $t = 3.276$, $p = .001$) were found to be predictors of DE, except for

novelty (*β* = -.056, *t* = -1.619, *p* = .106) and attention quality (*β* = -.102, *t* = -1.125, *p* = .261). The analysis revealed that challenge, exploration intention, and instant enjoyment were significant predictors of dedication, although novelty and attention quality did not show any predictive ability emphasizing the need of including stimulating and enjoyable activities into physical education programs.

Lastly, it was revealed that SI predicts AB [*F*(5, 1090) = 119.915, *p* <.001], suggesting that SI directly and positively influences AB. Additionally, the R^2 = .355 construes that the model accounts for 35.5% of the variance in AB. The finding indicates that students are more likely to become absorbed in their learning experiences when they genuinely show enthusiasm in the tasks they are given. Educators can utilize this finding to create teaching methods and educational settings that encourage students to be interested in the current situation, thereby enhancing their ability to fully engage and become fully involved in the learning process. This ultimately results in more significant and efficient learning achievements. After assessing each dimension's predictive ability, it was observed that challenge (*β* = .302, *t* = 4.767, *p* <.001) and exploration intention (*β* = .225, *t* = 5.333, *p* <.001) were found to be direct predictors of absorption, except for novelty (*β* = -.044, *t* = -1.125, *p* = .261), attention quality (*β* = .140, *t* = 1.604, *p* = .109) and instant enjoyment (*β* = .024, *t* = .268, *p* = .789). It became apparent that the dimensions such as challenge and exploration intention have an immediate influence on AB, however, dimensions such as novelty, attention quality, and quick enjoyment did not have a direct predictive ability. The findings underscore the importance of cultivating a learning environment that motivates students to confront obstacles and investigate novel concepts, thereby facilitating heightened levels of engagement in physical activities. Educators have the ability to employ these findings in order to customize teaching methods that stress active participation and investigation, so promoting improved comprehension and significant educational encounters for students.

Table 3
Influence of situational interest on study engagement: hypotheses testing

Hypothesis	Regression weights	Beta Coefficient	R^2	*F*	*t*-value	*p*-value	Decision
H_1	SI → SE	-	.496	214.121	-	<.001	Accepted
H_{1a}	NV → SE	-.038	-	-	-1.240	.215	Accepted
H_{1b}	CL → SE	.295	-	-	5.975	<.001	Rejected
H_{1c}	EI → SE	.258	-	-	7.854	<.001	Rejected
H_{1d}	AQ → SE	.062	-	-	.915	.361	Accepted
H_{1e}	IE → SE	.096	-	-	1.401	.161	Accepted
H_2	SI → VI	-	.428	163.219	-	<.001	Rejected

Table 3
Influence of situational interest on study engagement: hypotheses testing (*cont.*)

Hypothesis	Regression weights	Beta Coefficient	R^2	*F*	*t*-value	*p*-value	Decision
H_{2a}	NV → VI	-.016	-	-	-.474	.636	Accepted
H_{2b}	CL → VI	.308	-	-	5.536	<.001	Rejected
H_{2c}	EI → VI	.220	-	-	5.928	<.001	Rejected
H_{2d}	AQ → VI	.088	-	-	1.146	.252	Accepted
H_{23}	IE → VI	.068	-	-	.874	.383	Accepted
H_3	SI → DE	-	.479	200.264	-	<.001	Accepted
H_{3a}	NV → DE	-.056	-	-	-1.619	.106	Accepted
H_{3b}	CL → DE	.264	-	-	4.720	<.001	Rejected
H_{3c}	EI → DE	.363	-	-	9.754	<.001	Rejected
H_{3d}	AQ → DE	-.102	-	-	-1.325	.185	Accepted
H_{33}	IE → DE	.256	-	-	3.276	.001	Rejected
H_4	SI → AB	-	.355	119.915	-	<.001	Rejected
H_{4a}	NV → AB	-.044	-	-	-1.125	.261	Accepted
H_{4b}	CL → AB	.302	-	-	4.767	<.001	Rejected
H_{4c}	EI → AB	.225	-	-	5.333	<.001	Rejected
H_{4d}	AQ → AB	.140	-	-	1.604	.109	Accepted
H_{4e}	IE → AB	.024	-	-	.268	.789	Accepted

Note: Significance p <.05.
Legend:
SI – Situational Interest, NV – Novelty, CL – Challenge, EI – Exploration Intention, AQ – Attention Quality, IE – Instant Enjoyment, SE – Student Engagement, VI – Vigour, DE – Dedication, AB – Absorption.

Discussion

This study highlights the intricate yet noteworthy relationship that exists between students' situational interest and their study engagement in physical education classes. It emphasizes that students are more inclined to actively and enthusiastically participate when they perceive the activities and exercises as engaging. The aforementioned interaction implies that factors such as the level of difficulty of the task and the potential for exploration and innovation are significant in forecasting student engagement (Roure et al., 2019). Furthermore, the concept of situational interest plays a crucial role in motivating individuals to incorporate challenging and exploratory possibilities into physical education programs. This approach aims to cultivate a more profound and enduring interest in physical activity among students (A. Chen & Wang, 2017; Roure & Pasco,

2018; Zhu et al., 2009). These findings collectively support the implementation of a strategic approach in the field of physical education, with the goal of fostering a student population that is more actively involved, engaged, and health-conscious.

The significance of situational interest in relation to students' vigour is essential for comprehending the manner in which engagement manifests as a vibrant and dynamic educational encounter. According to Roure et al. (2019), the increased level of energy and excitement observed in VI appears to be influenced by the presence of challenging and exploratory domains within SI. This implies that engaging in intellectually demanding and inquisitive activities can enhance students' vigour. On the other hand, it is worth noting that certain domains such as novelty, attention quality, and rapid enjoyment may not have an important influence on vigour. This suggests that educators should prioritize tasks that surpass superficial involvement in order to genuinely invigorate students (Linnenbrink-Garcia et al., 2010; Rotgans & Schmidt, 2011). These findings provide educators with valuable insights for creating educational environments that not only captivate students' attention but also foster a heightened level of engagement, which is crucial for successful learning and academic success.

Additionally, the results highlight the direct influence of situational interest on dedication to physical activities, indicating that the dimensions of challenge, exploration intention, and instant enjoyment play a crucial role in promoting student dedication. Students that are truly involved in a task, motivated by these dimensions of SI, have a greater degree of dedication to physical activity. The consideration of this dedication holds significant importance for educators in the development of curriculum that fosters lifelong health and fitness. Intriguingly, initial assumptions about the predictive power of novelty and attention quality on dedication are being reconsidered, with findings pointing towards a lesser impact on sustained engagement. Recent evidence suggests that these factors may have a relatively limited effect on prolonged engagement (A. Chen & Darst, 2001; Roure & Pasco, 2018). Therefore, it is imperative for educational programs to prioritize the improvement of these fundamental dimensions of SI in order to strengthen student drive and dedication in physical activities. Additionally, Zhu et al. (2009) emphasized the importance of SI in fostering student well-being within the context of physical education. These studies provide significant insights for educators seeking to enhance student dedication through well planned physical education activities.

Finally, situational interest is of great significance in promoting student absorption during physical tasks. The finding has shown that genuine anticipation for a particular task is associated with a higher level of learner immersion. Teaching methods can be customized to leverage this relationship, thereby establishing a setting that fosters inquisitiveness and involvement. The key aspects in

predicting AB have been identified as the dimensions of challenge and exploration intention, surpassing novelty, attention quality, and instant enjoyment. This implies that the level of student engagement is closely linked to the mental requirements of the task and the chances it provides for investigation. Therefore, it is imperative for educators to prioritize the development of learning experiences that are simultaneously rigorous and inquisitive in order to enhance student engagement and comprehension. The research conducted by various scholars provided evidence that SI has a substantial influence on academic performance and classroom conduct (A. Chen & Darst, 2001; Rotgans & Schmidt, 2011). This has important implications for improving educational outcomes by designing tasks that may result in healthy and active students.

Understanding the role of situational interest in educational contexts, particularly in the field of physical education, has been a focal point of recent scholarly works (Allard-Latour et al., 2022; S. Chen et al., 2021; Otundo & Garn, 2019). In the findings of this present study, it has been consistently demonstrated that SI significantly predicts various aspects of student engagement, whether it be, vigour, dedication, or absorption in learning activities. The dimensions such as challenge and exploration intention have emerged as consistent predictors across these domains, suggesting that when students face tasks that are intellectually challenging and allow for exploration, they are more likely to engage deeply and persistently. This pattern holds true even when novelty and attention quality do not directly predict these outcomes. Importantly, these findings provide actionable insights for educators: by designing learning environments that amplify the dimensions of SI that matter, i.e. challenge and exploration, educators can foster not just immediate interest, but a lasting engagement that could contribute to overall well-being and academic success in physical education. The existing literature emphasizes the necessity of implementing instructional techniques that prioritize these dimensions in order to maximize student engagement and academic performance within the context of physical education (A. Chen & Darst, 2001; Roure et al., 2019; Zhu et al., 2009).

The development of highly engaged learners necessitates the implementation of strategic planning in physical education activities that effectively capture students' situational interest. Studies indicate that creating tasks that have intrinsic difficulties and chances for exploration can greatly improve student engagement (Cho, 2018; Lobo, 2024). This suggests that educators should intentionally include these components in their curriculum. Although novelty and immediate enjoyment provide an initial sense of engagement, it is the continuous intellectual and exploratory requirements that sustain student immersion and commitment. In order to foster a dynamic and participatory learning environment, it is imperative for educational techniques to prioritize the development of different and demanding scenarios that stimulate students' engagement in

physical activities. This strategy effectively engages students' interest and cultivates long-lasting dedication to physical education, so aligning with the broader objective of enhancing student well-being and academic success (Roure & Pasco, 2018; Sun et al., 2008).

Conclusion

Taking advantage of situational interest in the context of physical education is of utmost importance in fostering student engagement and exerting a substantial impact on their educational trajectory and propensity for engaging in physical activities. Educators have the ability to cultivate a stimulating and rewarding learning environment by utilizing pedagogical strategies that prioritize challenges and opportunities for exploration, thereby leveraging students' inherent inclinations. These methodologies not only effectively include students in the moment but also possess the capacity to cultivate a lasting admiration for physical activity. The existing body of scholarly literature emphasizes the need of designing educational experiences that align with students' innate curiosity and enthusiasm, therefore fostering a favourable and long-lasting connection with physical education and a state of well-being.

On the other hand, this study is subject to certain limitations, such as its dependence on self-reported measurements, which could potentially introduce bias, and the potential diversity in the conceptualization of situational interest across diverse educational contexts. Furthermore, it is important to consider various factors that could potentially influence the transmission of situational interest to study engagement. These factors encompass the calibre of task design, individual variations among students, such as pre-existing knowledge and personal inclination, as well as environmental elements such as classroom atmosphere and teacher efficacy. Further investigation could be conducted to examine the intricate interplay between these variables throughout diverse educational settings. This will facilitate an understanding of the underlying mechanisms that maintain situational interest and efficiently direct it towards sustained student engagement. Additional methods to enhance the depth of understanding might include longitudinal studies to track changes over time, experimental designs to test the efficacy of specific interventions, and qualitative approaches, such as interviews and observations, to capture the nuanced experiences of individual students.

The importance of considering situational interest in the field of physical education is evident in the existing body of literature and holds special relevance within the context of higher education in the Philippines. This study enhances the scholarly comprehension of motivation within a distinct cultural context by investigating the impact of situational interest on student engagement in phys-

ical education. This approach improves the pedagogical framework employed by educators in the field of physical education, promoting the use of approaches that are specifically designed to cater for the interests and motivations of Filipino students. This study has the potential to contribute to the development of more efficient physical education programs that effectively include university students and foster long-term physical health, aligning with the educational goals and cultural principles of the nation.

Statement of Ethics

This study was conducted in accordance with the World Medical Association Declaration of Helsinki. The study protocol was reviewed and approved by the Research Management Office of the Bulacan State University, City of Malolos, Bulacan, Philippines as Independent Research (Self-funded, CSER-CRDU-2024-017 April 01, 2024). All participants provided written informed consent to participate in this study.

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Authors' Contributions

Joseph Lobo: Conceptualization; Methodology; Software; Validation; Formal analysis; Investigation; Resources; Data Curation; Writing – Original Draft; Writing – Review and Editing; Visualization; Supervision; Project Administration; Funding Acquisition.

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