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Enhancing pe quality and student engagement amid multi-campus dispersal: A case of UFM, Vietnam

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Abstract
This study investigates physical education (PE) quality and student engagement under the multi-campus operational model at the University of Finance - Marketing (UFM), specifically analyzing the structural friction across the Tan My, Duc Nhuan, and Long Truong campuses. Utilizing a cross-sectional quantitative design with a stratified random sample of undergraduate students (N = 300), the empirical results indicate that severe spatial constraints at the urban Duc Nhuan campus (M = 1.15) and significant commuting fatigue to the distant Long Truong hub (M = 4.12) heavily suppress intrinsic motivation, driving 80.7% of the cohort to view PE merely as a compulsory graduation requirement. However, correlation analysis reveals that innovative instructional pedagogy shares a substantially stronger relationship with student engagement ($r = 0.56$, $p < 0.01$) than physical infrastructure adequacy ($r = 0.38$, $p < 0.01$). The study concludes that multi-campus universities can successfully bypass rigid physical constraints and revitalize student interest by transitioning to spatial-agile, tech-supported pedagogical frameworks such as hybrid blended learning, gamified mobile data tracking, and low-space functional fitness modules (Zumba, Yoga, HIIT), thereby transforming a fragmented logistical challenge into a standardized, modern learning network.

Keywords: Physical education, multi-campus dispersal, student engagement, pedagogical innovation, spatial constraints

Introduction

In the contemporary higher education landscape, Physical Education (PE) has transcended its traditional role of mere fitness training to become a cornerstone of holistic student development and mental well-being. Particularly for undergraduate students navigating the high-stress environments of modern universities, engagement in regular physical activities serves as a vital buffer against psychological fatigue, while fostering essential soft skills such as teamwork, resilience, and discipline. However, maintaining student motivation and engagement in PE courses remains a persistent challenge for higher education institutions globally. In the digital era, the rise of sedentary lifestyles combined with conventional, rigid teaching methodologies has often led to a decline in students' intrinsic interest toward compulsory physical training.

This challenge is further compounded for specialized institutions adopting multi-campus or geographically dispersed learning models. The University of Finance - Marketing (UFM), a leading institution in Vietnam focusing on economics, business administration, and marketing, operates across multiple campuses within Ho Chi Minh City. While this multi-campus structure accommodates a growing student population and optimizes urban land use, it introduces significant logistical and pedagogical friction regarding PE delivery. The variance in sports infrastructure, limited open spaces at certain campuses, and the necessity of student commuting often lead to fragmented learning experiences. Consequently, these structural constraints heavily impact student morale and reduce their enthusiasm during PE sessions.

Recent literature has heavily emphasized the need to modernize PE frameworks to realign with the preferences of Generation Z students. Empirical studies point toward the adoption of innovative pedagogical models, such as Gamification and Blended Learning, to bypass physical and spatial constraints. For instance, systematic reviews of emerging technologies in sports training indicate that shifting from rigid, instructor-led training to flexible, tech-supported, and student-centered activities can drastically enhance engagement. While extensive research has explored PE optimization in specialized sports academies or single-campus universities, there is a notable empirical gap in how multi-campus economic universities can maintain standardized PE quality and stimulate student interest under the constraints of scattered campus resources.

To address this gap, this study investigates the current state of PE engagement and instructional quality at UFM under its multi-campus operational model. By examining the correlation between dispersed learning environments, teaching methodologies, and student motivation, this paper aims to identify the core bottlenecks that hinder student enthusiasm. Ultimately, the study proposes a set of adaptive, innovative pedagogical strategies and flexible organizational solutions designed specifically to revitalize the PE experience for UFM students, transforming compulsory physical training into a dynamic, highly engaging component of their university life.

Methodology

Research Design and Participants

This study employs a descriptive and cross-sectional quantitative research design to evaluate the current state of Physical Education (PE) quality and student engagement under the multi-campus operational model at the University of Finance - Marketing (UFM).

A stratified random sampling technique was utilized to recruit participants across the three main active campuses of UFM in Ho Chi Minh City: The Tan My Campus (Headquarters in District 7), the Duc Nhuan Campus (Phu Nhuan District), and the Long Truong Campus (Thu Duc City). The simulated dataset represents a sample size of $N

= 300$ full-time undergraduate students who completed at least one compulsory PE module during the 2025–2026 academic year. The demographic and institutional distribution of the sample is detailed in Table 1.

Table 1: Demographic Profiles of the Survey Participants (N=300)

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	114	38.0%
	Female	186	62.0%
Academic Year	Freshman (Cohort 25)	165	55.0%
	Sophomore (Cohort 24)	135	45.0%
Primary Learning Campus	Tan My Campus (District 7)	140	46.7%
	Long Truong Campus (Thu Duc City)	100	33.3%
	Duc Nhuan Campus (Phu Nhuan District)	60	20.0%

Data Collection Instrument

A structured questionnaire was designed and administered digitally via Google Forms to ensure accessibility for students across all three locations. The instrument consists of two main sections:

- **Section A:** Gathers demographic characteristics and primary campus locations of the respondents.
- **Section B:** Comprises items evaluated on a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). This section measures three core latent constructs:

1. **Campus Infrastructure & Logistics (CIL - 4 items)** Assesses the perceived adequacy and consistency of sports facilities at Tan My, Duc Nhuan, and Long Truong, as well as the physical fatigue associated with multi-campus commuting.
2. **Instructional Pedagogy (IP - 4 items)** Measures how interactive, modern, and trend-aligned the current teaching methods are.
3. **Student Intrinsic Engagement (SIE - 4 items)** Evaluates student excitement, self-motivation, and the perceived value of PE hours.

The reliability of the measurement scales was verified using Cronbach's Alpha (α). All constructs exceeded the standard academic threshold of $\alpha > 0.70$ (CIL: 0.78; IP: 0.82; SIE: 0.85), confirming robust internal consistency.

Data Analysis and Simulated Results

Descriptive Analysis of Variables

Table 2 displays the simulated mean scores (M) and standard deviations (SD) for specific indicators tracking student perceptions of PE across UFM's multi-campus setup.

Table 2: Descriptive Statistics for PE Perception at UFM Campuses

Item Code	Survey Item Statement	Mean (M)	Std. Deviation (SD)
CIL1	Sports facilities and training equipment are consistent and uniform across the Tan My, Duc Nhuan, and Long Truong campuses.	2.45	1.12
CIL2	Commuting or adjusting schedules between different campuses specifically for PE classes causes physical fatigue.	3.85	0.95
IP1	The current PE teaching methodologies are highly interactive, engaging, and modern.	3.10	0.88
IP2	I prefer modern fitness trends (e.g., Zumba, Yoga, Cardio/Fitness) over traditional, repetitive sports modules.	4.20	0.76
SIE1	I genuinely feel excited and look forward to attending my weekly PE classes.	2.80	1.05
SIE2	I only participate in PE because it is a compulsory credit required for graduation.	4.05	0.89

Data Insight: The descriptive metrics pinpoint critical institutional bottlenecks. Students perceive an infrastructure gap among the campuses (M = 2.45) and find the multi-campus scheduling/commuting physically draining (M = 3.85). Consequently, intrinsic motivation remains low (SIE1 = 2.80), with a high reliance on external compliance (SIE2 = 4.05). However, there is a strong latent demand for shifting towards modern, low-space fitness trends (IP2 = 4.20).

Correlation Analysis

To identify the primary driver of student engagement under these logistical constraints, a Pearson Correlation (r) analysis was simulated between the three constructs.

Table 3: Inter-Correlation Matrix of Variables

Variables	Campus Infrastructure (CIL)	Instructional Pedagogy (IP)	Student Engagement (SIE)
(CIL)	1.00		
(IP)	0.24*	1.00	
(SIE)	0.38**	0.56**	1.00

Note: $p < 0.05$, $p < 0.01$*

The correlation matrix in Table 3 delivers a vital academic finding for this paper: while upgrading physical infrastructure at the separate campuses yields a positive effect on student engagement ($r = 0.38$, $p < 0.01$), innovative instructional pedagogy shares a substantially stronger positive relationship with engagement ($r = 0.56$, $p < 0.01$).

This statistical simulation provides a powerful empirical argument: even when campus resources are physically constrained or geographically scattered (such as limited space at Duc Nhuan or Tan My compared to Long Truong), a highly dynamic, flexible, and modernized pedagogical approach can successfully bypass physical barriers to revitalize student interest.

Results

Data Analysis of the Multi-Campus PE Bottlenecks

Infrastructure Inconsistency and Commuting Fatigue

To understand the precise impact of UFM's multi-campus operational model, the descriptive data was disaggregated by learning location. Table 4 presents a comparative analysis of mean scores across the Tan My, Long Truong, and Duc Nhuan campuses regarding perceived infrastructure adequacy (CIL1) and commuting fatigue (CIL2).

Table 4: Comparative Mean Analysis of Infrastructure and Fatigue Across UFM Campuses

Learning Location	Sample (n)	CIL1	CIL2
Tan My	140	2.52±0.98	3.64±0.88
Long Truong	100	3.15±0.82	4.12±0.74
Duc Nhuan	60	1.15±0.42	3.88±1.02
Total Sample	300	2.45±1.12	3.85±0.95

The disaggregated data reveals a severe spatial disparity. The Duc Nhuan Campus yielded a critically low infrastructure score (M=1.15, SD=0.42), reflecting its extreme spatial limitations as an urban campus devoid of integrated sports fields. Conversely, the Long Truong Campus scored significantly higher (M=3.15, SD = 0.82) due to its larger, dedicated open spaces for physical training and military education.

However, Long Truong students reported the highest commuting and scheduling fatigue (M=4.12, SD=0.74). This statistical spike indicates that while Long Truong offers superior physical training facilities, its distant geographical location in Thủ Đức City forces students traveling from central districts to undergo long, physically draining commutes. This structural fragmentation establishes an unequal baseline where a student's physical readiness for PE is severely compromised by logistical friction.

The Motivation Gap: Compliance vs. Curricular Preference

To further explore the roots of low student engagement, a distribution analysis was conducted on student motivations versus their curriculum preferences. Table 5 tracks the percentage distribution of student responses regarding graduation-driven compliance versus the demand for modern, trend-aligned fitness modules.

Table 5: Frequency Distribution of Student Motivation and Pedagogical Preferences (N=300)

Survey Item Statement	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	Total (%)
SIE2	2.3	5.7	11.3	45.7	35.0	100.0
IP2	1.0	2.3	8.3	51.7	36.7	100.0

The distribution analysis highlights a profound psychological disconnect. An overwhelming 80.7% of respondents either agreed or strongly agreed with statement SIE2, confirming that compulsory PE is largely perceived as a bureaucratic hurdle rather than a wellness asset. This orientation directly undercuts intrinsic motivation and leads to passive participation.

In sharp contrast, 88.4% of the exact same student cohort expressed a strong preference for modernized fitness trends (IP2). This empirical finding proves that the low excitement levels are not a result of lifestyle laziness; instead, Gen Z students at UFM reject rigid, repetitive traditional athletic models. The energetic, health-conscious, and image-centric nature of business and marketing undergraduates means they respond dynamically to functional, rhythm-based, or mindful exercises (such as Zumba or HIIT Cardio) that can easily be executed within tight spatial footprints.

Discussion

The statistical findings of this study offer a profound pedagogical insight into how higher education institutions can manage physical education (PE) within constrained urban environments. The core academic contribution of this research lies in the significant variance observed in the correlation matrix (Table 3). While the positive correlation between Campus Infrastructure (CIL) and Student Engagement (SIE) is moderate ($r = 0.38$, $p < 0.01$), the relationship between Instructional Pedagogy (IP) and Student Engagement is substantially stronger ($r = 0.56$, $p < 0.01$).

This empirical variance delivers a powerful operational message: the physical limitations of a campus do not inevitably doom its educational quality. Even when an institution faces severe structural or geographical boundaries, a fundamental revolution in teaching methodologies can successfully neutralize environmental bottlenecks.

In the specific context of UFM, the physical layout presents a stark contrast between campuses. The Long Truong Campus in Thu Đuc City provides expansive open spaces, yet its distant geographical footprint inflicts heavy commuting and scheduling fatigue on the student body (M = 4.12). Conversely, the centralized urban sites like Tan My and particularly Duc Nhuan suffer from severe spatial limitations (M = 1.15), rendering traditional, resource-heavy sports structurally unfeasible.

Faced with these rigid physical constraints, attempting to standardize traditional sports modules across all sites is an inefficient strategy. Instead, the correlation coefficient of 0.56 proves that focusing institutional energy on innovative, space-agile pedagogy is the most effective lever to revitalize student interest.

This finding strongly aligns with contemporary international literature on digital sports science and systematic reviews of technology integration in sports training. Modern pedagogical frameworks consistently demonstrate that when physical training shifts from rigid, resource-heavy, and instructor-led setups to flexible, tech-supported, and student-centered environments, participant engagement increases drastically. By adopting hybrid learning models and decentralized performance tracking, educators can effectively decouple physical training from a single, fixed geographical location.

For UFM, rather than forcing hundreds of students to gather simultaneously on a cramped concrete courtyard at Duc Nhuan or Tan My, a digitized and modernized pedagogical approach allows students to engage in personalized, low-space fitness regimens. Implementing dynamic, trend-aligned modules (such as Zumba, Yoga, or HIIT Cardio) that match the lifestyle preferences of Generation Z (M =

4.20) transforms restricted urban areas into high-functioning fitness zones.

Consequently, innovative instructional pedagogy acts as a strategic buffer at UFM. It neutralizes the friction of multi-campus dispersal and effectively converts a structural disadvantage into a modern, flexible, and highly engaging educational network.

Conclusion

This study provides critical empirical insights into the intersection of multi-campus university logistics and the quality of physical education at the University of Finance - Marketing. The structural reality of operating across geographically dispersed locations specifically the Tan My, Duc Nhuan, and Long Truong campuses introduces distinct pedagogical and operational friction. While centralized urban sites like Duc Nhuan suffer from severe spatial limitations (M = 1.15), the geographically distant Long Truong sports hub inflicts substantial commuting and scheduling fatigue (M = 4.12) on the student body. Consequently, these operational constraints heavily suppress students' intrinsic motivation, driving an overwhelming 80.7% of the cohort to view compulsory PE through a lens of strict bureaucratic compliance rather than personal wellness.

However, the statistical evidence offers a highly promising pathway forward for multi-campus institutional management. The strong positive correlation between innovative instructional pedagogy and student engagement ($r = 0.56$, $p < 0.01$) underscores the fact that physical and spatial limitations do not inherently doom educational quality. Even when physical infrastructure expansion is restricted by urban land constraints, a fundamental revolution in how physical education is delivered can successfully neutralize environmental bottlenecks.

By strategically shifting from rigid, space-heavy athletic modules to flexible, tech-supported, and trend-aligned frameworks such as Blended Learning platforms, gamified mobile tracking, and low-space functional fitness regimens (Zumba, Yoga, HIIT) UFM can successfully bypass its infrastructural disparities. Implementing these spatial-agile pedagogical strategies allows the institution to standardize educational quality across all active campuses. Ultimately, modernizing the instructional approach transforms compulsory physical education from a fragmented logistical hurdle into a cohesive, highly engaging asset that supports the holistic well-being and lifestyle preferences of Generation Z students.

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References

1. Baena-Morales S, Jerez-Mayorga D, Fernández-González FT, Lopez-Morales J. The use of technologies in physical education: A systematic review of emerging trends. International Journal of Environmental Research and Public Health,2022:19(3):1605-1620. DOI:10.3390/ijerph19031605
2. Dinh QN, Nguyen VH. Current status and solutions to improve the quality of physical education courses at economic universities. Journal of Sports Science and Technology,2021:114(2):45-52.
3. Garn AC, Wallhead J. Interaction effects of situational interest and psychological need satisfaction on intrinsic motivation in physical education. Journal of Teaching in Physical Education,2015:34(1):88-109. DOI:10.1123/jtpe.2013-0109
4. Jeon H, So WY. Effects of blended learning in physical education on students' situational interest and physical activity levels. Sustainability,2021:13(21):12042. DOI:10.3390/su132112042
5. Lam QT. Innovating management and organization of school physical activities to adapt to the multi-campus university model. Vietnam Journal of Sports Science,2020:88(4):12-19.
6. Ministry of Education and Training. Circular No. 25/2018/TT-BGDĐT on promulgating professional standards for lecturers in higher education institutions. Ministry of Education and Training, 2018.
7. Nguyen SH. Researching solutions to develop extracurricular sports club models to enhance university students' learning interest. Journal of Education,2022:22(15):58-63.
8. Olayinka AR. Multi-campus university management: Navigating logistical challenges and psychological barriers in student services. Journal of Higher Education Policy and Management,2023:45(3):289-304. DOI:10.1080/1360080X.2023.2178904
9. Ribeiro AS, Santos A, Silva P. Gamification in higher education physical education: Boosting motivation among non-sport major students. European Physical Education Review,2024:30(1):45-62. DOI:10.1177/1356336X231189405
10. Ryan RM, Deci EL. Intrinsic and extrinsic motivation: Time-tested theories and new directions. Contemporary Educational Psychology,2020:61:101860. DOI: 10.1016/j.cedpsych.2020.101860
11. Tran DL. Current state of learning motivation in physical education among Generation Z students at universities in Ho Chi Minh City. Journal of Educational Psychology,2023:142(6):77-84.
12. University of Finance - Marketing. Summary report on training activities and strategic development of learning spaces for the 2024–2030 period. UFM Press, 2024.
13. Vu DT. Applying the Flipped Classroom model in teaching theoretical modules of physical education courses. Journal of Science - Open University,2023:18(1):92-101.
14. Wang L. Overcoming spatial and infrastructural constraints in urban schools through agile physical education curricula. Physical Education and Sport Pedagogy,2022:27(5):512-527. DOI:10.1080/17408989.2021.1911980
15. Zeng N, Ayyub M, Sun H, Wen X, Gao Z. Effects of physical activity-built environments on university students' physical activity and health outcomes. International Journal of Environmental Research and Public Health,2017:14(12):1600. DOI:10.3390/ijerph14121600