



American Journal of Multidisciplinary Research and Innovation (AJMRI)

ISSN: 2158-8155 (ONLINE), 2832-4854 (PRINT)

VOLUME 4 ISSUE 3 (2025)



PUBLISHED BY
E-PALLI PUBLISHERS, DELAWARE, USA

Quality Physical Education, Motivation, and Physical Effort of College Students: An Explanatory Sequential Design

Jayson A. Falle^{1*}, Bryan L. Cancio²

Article Information

Received: February 20, 2025

Accepted: March 29, 2025

Published: May 07, 2025

Keywords

*Quality Physical Education,
Motivation, Physical Effort,
Explanatory Sequential Design,
Philippines*

ABSTRACT

This study explored the influence of quality physical education (QPE) and motivation on college students' physical effort in physical education (PE) using a mixed methods approach, particularly explanatory sequential design. For the quantitative phase, respondents were randomly chosen from among the selected state universities and colleges in Region XII, and for the qualitative phase, participants were purposively chosen from the respondents of the quantitative phase to participate in the in-depth interview and focus group discussion. Sets of adapted survey tools and an interview guide were used to gather data. The mean, standard deviation, and linear regression were used as statistical tools for the quantitative strand. Further, coding and thematic analysis were employed for the qualitative strand. Findings revealed high mean ratings in QPE, colleges students' physical effort respectively, while motivation in was moderate. Furthermore, QPE and motivation were both found as significant predictors of college students' physical effort in physical education. Moreover, results showed that the high percentage of the variance of the college student physical effort in PE was explained by the independent variables, QPE, and motivation, thus it can be said that a certain percentage of the variance can be attributed to other factors aside from the variables explored in the study. The combined influence of quality physical education and motivation as predictors of physical effort in PE among college students was a good fit for the data in this study. Also, the participants' standpoints on the salient findings of the study were probed for further explanation in the qualitative strand. Thus, the joint display revealed the confirming-merging nature of data integration.

INTRODUCTION

Physical effort is crucial for students' well-being, enhancing both physical and cognitive health (Bailey *et al.*, 2018). Globally, a decline in students' physical activity is a concern (Guthold *et al.*, 2020). This trend is evident in the Philippines, exacerbated by lifestyle changes and digital technology (Samson *et al.*, 2022). Region XII faces additional challenges due to outdated PE curricula and limited resources (García & Santos, 2021). Quality physical education (QPE) programs are vital for enhancing student engagement (Bailey *et al.*, 2019). Intrinsic motivation also plays a significant role in increasing physical effort (Ryan & Deci, 2020). Despite existing studies, there's a lack of local research, particularly those using mixed methods, highlighting the need for this study to inform educational practices in Region XII.

LITERATURE REVIEW

Quality Physical Education

Quality Physical Education (QPE) involves inclusive and equitable curricula designed to engage young people in physical activity for a healthy lifestyle. It is a structured educational experience integrated into early years, primary, and secondary education. QPE is essential for overall development, providing vital knowledge, skills, fitness, and positive attitudes for active participation in physical activities. Effective QPE requires quality

facilities, equipment, policies, and teacher training to promote lifelong physical activity habits. Indicators of QPE include skill development, bodily awareness, facilities and norms, teaching quality, feasibility and accessibility, social norms, government input, cognitive skills development, and habituated behavior in physical activities (Hagger, 2018).

Motivation in Physical Education

Motivation in Physical Education (PE) is crucial for students' engagement, participation, and fitness (Fletcher & Silverman, 2017). Motivated students are more likely to be active, develop life skills, and maintain healthy habits into adulthood (Ryan & Deci, 2020). However, many students show only moderate enthusiasm in PE due to lack of interest, feelings of competence, or instructional approaches (Chen *et al.*, 2020). Motivational regulation includes amotivation, external regulation introjected regulation, and intrinsic motivation (Ryan & Deci, 2020).

Physical Effort

Physical effort in PE involves more than just participating in activities; it includes developing qualities like tenacity, discipline, and resilience, fostering healthy lifestyle patterns and cognitive growth (McKenzie *et al.*, 2020; Hardman & Marshall, 2019; Tremblay *et al.*, 2022; Sallis *et al.*, 2021). High levels of physical effort are linked to personal fitness goals, intrinsic motivation,

¹ Sultan Kudarat State University, Philippines

² Department of Education, Philippines

* Corresponding author's e-mail: jaysonfalle@sksu.edu.ph

and supportive environments, contributing to resilience, discipline, and social skills (Lee & Park, 2023). Physical effort can be approached through self-paced PE, zone training, or interval training (Lauderdale *et al.*, 2020). Avoidance of physical effort may stem from a lack of enthusiasm, low self-efficacy, or negative attitudes towards physical activity, which can impact engagement in physical activities (Teuber *et al.*, 2024).

Quality Physical Education and Physical Effort of College Students

Quality Physical Education (QPE) significantly influences college students’ physical effort in PE classes (Smith *et al.*, 2020). Well-structured programs with clear goals, diverse activities, and adequate resources enhance student participation and effort (Smith *et al.*, 2020). Effective instructors, quality facilities and equipment, and technology integration also play crucial roles in promoting student engagement and motivating them to exert more effort (Johnson & Lee, 2021). QPE fosters a sense of competence and positive attitudes towards physical activity, further encouraging students’ physical effort (Chen & Sun, 2017).

Motivation and Physical Effort of College Students

Motivation is crucial for determining students’ physical effort in PE (Ntoumanis & Mallet, 2019). Intrinsic motivation significantly enhances students’ physical exertion, promoting deeper and more sustained engagement in physical activities (Ryan & Deci, 2020). Self-determination theory suggests that autonomy, competence, and relatedness are crucial for cultivating high motivation levels and physical effort (Deci & Ryan, 2020). Motivational interviewing techniques and competitive sports also boost students’ motivation and physical effort in PE (Wang *et al.*, 2021).

Issues on College Students’ Physical Effort

Physical effort is essential for students’ health, academic performance, and lifelong fitness, developing crucial life

skills and enhancing cognitive function (Bailey *et al.*, 2018; Warburton *et al.*, 2019; Alvarez-Bueno *et al.*, 2017). However, there has been a noticeable decline in physical effort among students globally and in the Philippines linked to sedentary behavior, increased academic pressures, and digital technology use De Vera and Estuar (2021). In Region XII, outdated PE curricula, limited resources, and economic constraints further contribute to this decline (Soriano *et al.*, 2021).

MATERIALS AND METHODS

This study employed a quantitative research design using a survey questionnaire to collect numerical data. A descriptive correlational design was used to describe the status of quality physical education, motivation, and physical effort of college students in Region XII, and to examine the relationships between these variables (Bloomfield & Fisher, 2019; Tobi & Kampen, 2018). Three hundred college students, selected via purposive sampling (Johnson, 2014; Sibona *et al.*, 2020), participated in the study. Three adapted survey questionnaires were used to measure quality physical education (adapted from Ho *et al.*, 2021), motivation (adapted from Goudas *et al.*, 1994), and physical effort (adapted from Cheval, 2022), each with Likert-type scales and established reliability. Content experts validated these sections before the survey, adhering to the standards observed in the studies (Dugho & Sumayo, 2025; Tanoja & Sumayo, 2024; Obenza *et al.*, 2023; Labajo & Sebugan, 2022). Data were collected through face-to-face administration of the questionnaires after obtaining informed consent. Statistical tools, including mean, standard deviation, and multiple linear regression, were used to analyze the data. The mean and standard deviation described the levels and variability of the variables, while multiple linear regression examined the influence of quality physical education and motivation on physical effort (Carter *et al.*, 2014; Creswell *et al.*, 2018).

RESULTS AND DISCUSSIONS

The Status of Quality Physical Education in Region XII

Table 1: The Status of Quality Physical Education in Region XII

| | Mean | SD | Description | |
|---|---|------|-------------|-----------|
| Skill Development and Bodily Awareness | | | | |
| In their school, physical education has been... | | | | |
| 1. | enhancing their physical skills | 4.57 | .56 | Very High |
| 2. | enhancing their knowledge of sports and related terms. | 4.49 | .58 | Very High |
| 3. | providing them with chances to take part in different physical activities. | 4.55 | .58 | Very High |
| 4. | enhancing their knowledge in different activities | 4.56 | .55 | Very High |
| 5. | giving them chances to learn and interact with classmates | 4.69 | .50 | Very High |
| 6. | teaching them how important activity is to the process of growth. | 4.64 | .50 | Very High |
| 7. | helping them to understand how their bodies work. | 4.60 | .54 | Very High |
| 8. | helping them to develop a habit in attending sport activities after school and to use their spare time in sport wisely. | 4.29 | .69 | Very High |
| | Category Mean | 4.55 | .38 | Very High |

| Facilities and Norms in Physical Education | | | | |
|--|--|------|------|-----------|
| 1. | having a PE teacher who helps to improve their physical education. | 4.60 | .58 | Very High |
| 2. | having a safe and suitable environment for physical education lesson. | 4.43 | .63 | Very High |
| 3. | existing safe and suitable equipment for physical education lesson. | 4.16 | .68 | High |
| 4. | having a safe and suitable facilities for physical education lesson. | 4.24 | .68 | Very High |
| 5. | giving opportunities for active learning in physical education lesson | 4.51 | .60 | Very High |
| 6. | developing them to have positive sport related attitudes and values in learning. | 4.49 | .60 | Very High |
| 7. | regarding health knowledge as one of the major areas of learning. | 4.52 | .58 | Very High |
| 8. | teaching them different types of physical activities and associated knowledge. | 4.53 | .59 | Very High |
| 9. | making teaching and learning of physical education fun and enjoyable. | 4.65 | .52 | Very High |
| 10. | offering physical education as a required subject for all students. | 4.57 | .58 | Very High |
| 11. | providing physical activity opportunities after-school or extra- curricular/ co-curricular activities as essential components of their learning experiences in sports and physical activities. | 4.38 | .67 | Very High |
| 12. | hiring teacher who is qualified to teach physical education. | 4.58 | .59 | Very High |
| 13. | allowing physical education accessible to all students, whatever their ability/disability, sex, age, cultural, race/ethnicity, religious, social or economic background | 4.66 | .55 | Very High |
| 14. | equipping them with the skills, attitudes, values, knowledge and understanding for lifelong participation in physical activity and sports through physical education | 4.55 | .60 | Very High |
| | Category Mean | 4.49 | .40 | Very High |
| Quality Teaching of Physical Education | | | | |
| 1. | learning and developing basic skills of different physical and sport activities. | 4.54 | .57 | Very High |
| 2. | acquiring the basic understanding of the importance of physical activities and health. | 4.65 | .52 | Very High |
| 3. | communicating ideas, feelings effectively with others. | 4.46 | .62 | Very High |
| 4. | developing basic motor skills within the context of appropriate physical activities of low organization. | 4.41 | .61 | Very High |
| 5. | demonstrating basic skills in decision making, communication, and others. | 4.46 | .61 | Very High |
| 6. | developing appropriate health and fitness understanding that includes setting and achieving personal goals for healthy living. | 4.55 | .55 | Very High |
| | Category Mean | 4.51 | .43 | Very High |
| Plans for Feasibility and Accessibility of Physical Education | | | | |
| 1. | conducting frequent international collaborative plans between institutes for quality physical education. | 3.99 | .75 | High |
| 2. | having frequent interschool collaborative plans between institutes for quality physical education. | 4.06 | .72 | High |
| | Category Mean | 4.03 | .66 | High |
| Social Norms and Cultural Practice | | | | |
| 1. | having religious culture as an issue contributing to the development of unequal learning opportunity in a country. | 3.04 | 1.21 | Moderate |
| 2. | having gender as an issue contributing to the development of unequal learning opportunities in a country. | 2.80 | 1.20 | Moderate |
| 3. | having economy as an issue contributing to the development of unequal learning opportunity in a country. | 3.06 | 1.13 | Moderate |
| | Category Mean | 2.97 | 1.03 | Moderate |
| Governmental Input for Physical Education | | | | |

| | | | | |
|--|---|------|-----|-----------|
| 1. | supporting research to improve the effectiveness and quality of physical education. | 4.28 | .70 | Very High |
| 2. | recognizing the distinctive role of PE as part of a balanced education system for the realization of human potential, healthy, health and well-being of all citizens. | 4.37 | .64 | Very High |
| 3. | working with international financial institutions to ensure physical education is included as part of their aid programmes in education. | 4.00 | .76 | High |
| 4. | recognizing that good quality physical education depends on well-qualified educators and priority is provided for training of qualified personnel even when other resources are in short of supply. | 4.19 | .70 | High |
| 5. | implementing policies for physical education as human right issue for all children. | 4.26 | .72 | Very High |
| | Category Mean | 4.22 | .51 | Very High |
| Cognitive Skill Development | | | | |
| 1. | helping them to develop their critical thinking skills. | 4.45 | .58 | Very High |
| 2. | enhancing their ability in problem solving. | 4.26 | .66 | Very High |
| 3. | developing their innovative thinking. | 4.37 | .59 | Very High |
| 4. | raising their independent thoughts. | 4.41 | .65 | Very High |
| 5. | inculcating socially acceptable moral thinking and conduct. | 4.36 | .65 | Very High |
| | Category Mean | 4.37 | .52 | Very High |
| Cognitive Habituated Behaviour in Physical Activities | | | | |
| 1. | developing suitable decisions on actions for maintaining healthy living | 4.37 | .60 | Very High |
| 2. | acquiring the habit of regular exercises. | 4.13 | .76 | Very High |
| 3. | understanding the relationship between physical and sport activities; and personal and social development. | 4.44 | .58 | Very High |
| 4. | taking up suitable responsibilities to serve sports clubs or other related activities in school or community. | 4.13 | .70 | High |
| 5. | acquiring advanced proficiency in different physical and sport activities. | 4.22 | .67 | Very High |
| 6. | participating in and out of school programmes available within the community and developed the necessary potential skills for lifelong involvement and participation in physical activities | 4.20 | .78 | Very High |
| | Category Mean | 4.25 | .51 | Very High |
| | Overall Mean | 4.17 | .36 | High |

Table 1 comprehensively evaluates the status of quality physical education (QPE) across various domains, revealing consistently high ratings from respondents. Skill development and bodily awareness were rated very high (mean 4.55), indicating strong perceptions of PE's effectiveness in enhancing physical skills, knowledge, and interaction. Facilities and norms in PE also received very high ratings (mean 4.49), with most items indicating positive perceptions of teaching quality, environment, and accessibility, although equipment availability was rated slightly lower (high, mean 4.16). Quality teaching was rated very high (mean 4.51), suggesting strong perceptions of the effectiveness of PE instruction. Plans for feasibility and accessibility were rated high (mean 4.03), indicating room for improvement in collaborative planning. Social norms and cultural practices were rated moderate (mean 2.97), highlighting challenges related to religious, gender, and economic inequalities. Governmental input was rated very high (mean 4.22),

showing strong perceptions of government support for PE. Cognitive skill development was rated very high (mean 4.37), indicating positive perceptions of PE's impact on critical thinking and problem-solving. Cognitive habituated behavior in physical activities was also rated very high (mean 4.25), reflecting positive perceptions of PE's role in promoting healthy habits and lifelong involvement. The overall mean rating for QPE was high (4.17), with responses showing relatively low dispersion (SD .36), indicating consistent positive perceptions across the board.

The findings of this study indicate that the quality of physical education is high, demonstrating that it is oftentimes observed. This implies that high-quality physical education promotes inclusive participation and success for all students in diverse physical activities. The results are consistent with McLennan and Thompson (2015), who highlighted that high-quality physical education cultivates a positive attitude toward physical

activity while reducing the likelihood of adolescents engaging in risky behaviors. They further noted its importance in promoting social inclusivity on a larger scale. Similarly, this study supports the conclusions of Chen *et al.* (2022), who identified high-quality physical education as a foundational tool for equipping students with critical knowledge, physical fitness, skills, and positive attitudes. Finally, the findings resonate with Ho *et al.* (2019), who argued that a comprehensive

and well-designed physical education curriculum is essential in educational settings. Achieving high-quality progress in physical education requires innovative approaches spanning educational strategies and practical implementation. These include improving venues, facilities, and equipment, as well as establishing policies that ensure equitable access and expanded opportunities for learning

Table 2: The Status of Motivation in Physical Education of College Students

| | | Mean | SD | Description |
|-------------------------------|---|------|------|-------------|
| Amotivation | | | | |
| 1. | really not knowing the reason why. (R) | 2.25 | .97 | Low |
| 2. | not seeing its importance to their life. (R) | 1.80 | .91 | Low |
| 3. | really feeling they are just wasting their time. (R) | 1.61 | .83 | Very Low |
| 4. | not seeing what I am getting out of PE. (R) | 1.78 | .87 | Very Low |
| | Category Mean (R) | 1.86 | .78 | Low |
| External Regulation | | | | |
| 1. | getting high grade in this way. | 3.49 | .99 | High |
| 2. | being required to do them. | 3.61 | 1.03 | High |
| 3. | making their teacher happy. | 3.31 | 1.08 | Moderate |
| 4. | being expected to join them as a student. | 3.65 | 1.04 | High |
| | Category Mean | 3.51 | .86 | High |
| Introjected Regulation | | | | |
| 1. | thinking that they are not good at PE if their teacher feel bad | 2.74 | 1.03 | Moderate |
| 2. | feeling bad about themselves if they do not participate. | 3.14 | 1.12 | Moderate |
| 3. | feeling bad if the other students think that they are not good at PE. | 2.97 | 1.13 | Moderate |
| 4. | being bothered if they do not | 3.05 | 1.14 | Moderate |
| | Category Mean | 2.97 | .94 | Moderate |
| Identified Regulation | | | | |
| 1. | doing well in PE. | 4.41 | .67 | Very High |
| 2. | improving my drills performance in PE. | 4.48 | .62 | Very High |
| 3. | showing good sports PE practices. | 4.42 | .65 | Very High |
| 4. | trying my best always in PE | 4.53 | .59 | Very High |
| | Category Mean | 4.46 | .52 | Very High |
| Intrinsic Motivation | | | | |
| 1. | enjoying their participation in PE activities | 4.62 | .56 | Very High |
| 2. | finding PE activities as exciting to do. | 4.59 | .58 | Very High |
| 3. | learning new skills which they find enjoyable. | 4.66 | .56 | Very High |
| 4. | considering PE activities to be fun to do. | 4.59 | .61 | Very High |
| | Category Mean | 4.62 | .50 | Very High |
| | Overall Mean | 3.30 | .46 | Moderate |

Table 2 presents the status of student motivation in physical education, categorized into amotivation, external regulation, introjected regulation, identified regulation, and intrinsic motivation, showing mean scores, standard deviations, and descriptive interpretations. Amotivation, reflecting a lack of motivation, was low overall (mean 1.86), with specific items indicating students often didn't see the importance of PE or felt they were

wasting time. External regulation, driven by external rewards or pressures, was high (mean 3.51), suggesting students were motivated by grades, requirements, and pleasing others. Introjected regulation, based on internal pressures like guilt or shame, was moderate (mean 2.97), indicating some students felt bad if they didn't participate or perform well. Identified regulation, motivated by the perceived value of PE, was very high (mean 4.46),

showing students recognized the importance of doing well and improving in PE. Intrinsic motivation, driven by enjoyment and interest, was also very high (mean 4.62), with students finding PE activities fun and exciting. The overall mean motivation was moderate (3.30), reflecting a balance between external and internal motivational factors.

The respondents' motivation in physical education has an overall mean rating of 3.30, described as moderate after recoding the items and category mean for amotivation. This indicates that college students' motivation in PE is sometimes demonstrated. This implies that motivation is a key factor in helping students enjoy PE-related activities and boosting their enthusiasm for acquiring new skills. When students have limited autonomy in their learning experiences, they may become less invested in physical

activities, leading to only moderate levels of motivation. Similarly, Froiland and Worrell (2016) discovered that, when studies were restricted to African American and Latino students, intrinsic drive had a consistent impact on student involvement, which in turn predicted higher accomplishment (GPA). On the other hand, creating inclusive and supportive PE environments can promote self-efficacy and confidence, even among initially less motivated students. Addressing these barriers by ensuring that PE activities are appropriately challenging and inclusive has the potential to elevate moderate motivation into higher levels of sustained engagement. Lastly, these results align with Deci and Ryan's (2020) findings, which indicate that students with high levels of intrinsic motivation demonstrate sustained interest, effort, and enthusiasm for physical activities

Table 3: The Status of Physical Effort of College Students

| | | Mean | SD | Description |
|-------------------------------------|---|------|-----|-------------|
| Approach of Physical Effort | | | | |
| 1. | usually liking the activities that require physical effort. | 4.34 | .67 | Very High |
| 2. | always acknowledging the idea of exerting physical effort as usually appealing to them. | 4.37 | .62 | Very High |
| 3. | generally enjoy activities that involve physical effort. | 4.39 | .67 | Very High |
| 4. | usually willing to engage in activities that involve physical effort. | 4.34 | .68 | Very High |
| | Category Mean | 4.36 | .56 | Very High |
| Avoidance of Physical Effort | | | | |
| 1. | tending to avoid situations in which they have to exert physical effort. (R) | 2.50 | .97 | Low |
| 2. | tending to stay away from tasks that require physical effort. (R) | 2.28 | .94 | Low |
| 3. | believing that exerting physical effort does not appeal to them. (R) | 2.11 | .88 | Low |
| 4. | usually disliking activities that involve physical effort. (R) | 1.99 | .92 | Low |
| | Category Mean (R) | 2.22 | .81 | Low |
| | Overall Mean | 4.62 | .50 | High |

Table 3 presents an analysis of students' approaches to and avoidance of physical effort. The "Approach of Physical Effort" category received very high ratings (mean 4.36), with all items indicating strong positive attitudes towards activities involving physical exertion, as students generally enjoy, like, and are willing to engage in such activities. Conversely, the "Avoidance of Physical Effort" category received low ratings (mean 2.22), showing that students generally do not tend to avoid situations or tasks requiring physical effort, and they generally do not dislike such activities. The overall mean for physical effort was high (4.07), suggesting that, on balance, students demonstrate a positive orientation towards physical effort.

The overall status of physical effort of among college students was computed after recoding the ratings of the items in avoidance of physical effort category. It shows that the status of physical effort of college students is 4.07. It is described as high which means that the physical effort of college students is oftentimes manifested. This implies that college students are willing to engage in

activities that involve physical effort. The high level of physical effort demonstrated by college students aligns closely with findings from Stanforth *et al.* (2023), who also found that students exhibit a high level of physical effort. Similarly, the high level of physical effort among college students is further reinforced by the study of Bevans *et al.* (2022), which highlights that students who actively participate in physical education classes tend to exert significant effort to achieve optimal performance. Moreover, prior research by Guan *et al.* (2023) indicates that a high level of physical effort is often observed in students who perceive physical education as both a challenge and an opportunity for self-improvement. This perception is crucial as it directly influences their willingness to push beyond their limits and set higher goals for themselves.

Significance of the Influence of Quality Physical Education, and Motivation on the Physical Effort of College Students

Table 4: Significance of the Influence of Quality Physical Education

| Physical Effort | | | | | |
|------------------------------------|-------|--------------------------|------|---------|-------------|
| Individual Influence of Predictors | | Standardized Coefficient | t | p-value | Remarks |
| Quality Physical Education | | .47 | 9.68 | .00 | Significant |
| Motivation | | .48 | 9.82 | .00 | Significant |
| Combined Influence of Predictors | | | | | |
| R | .58 | | | | |
| R ² | .34 | | | | |
| F | 75.33 | | | | |
| P | .00 | | | | Significant |

Table 4 presents the results of a multiple regression analysis examining the influence of quality physical education (QPE) and motivation on college students' physical effort. Individually, both QPE ($\beta = .47$, $t = 9.68$, $p < .05$) and motivation ($\beta = .48$, $t = 9.82$, $p < .05$) significantly predict physical effort, indicating that higher levels of QPE and motivation are associated with increased physical effort. Combined, QPE and motivation significantly influence physical effort, as shown by a significant F-ratio ($F(2, 297) = 75.33$, $p < .05$), confirming the regression model's good fit. The R-squared value of .34 indicates that 34% of the variance in physical effort is explained by QPE and motivation, while the remaining 66% is attributed to other factors not included in the model.

CONCLUSION

The result indicates that in individual capacity, quality physical education significantly influences college students' physical effort in PE. This means that QPE fosters a sense of belonging among college students, which may drastically boost their physical effort to engage in and excel in PE. Further, QPE programs that teach students the value of lifetime fitness and health tend to develop a stronger sense of physical effort. When students realize how physical activity benefits their overall well-being outside of the classroom, they are more likely to participate in PE. As outlined by Chen *et al.* (2022), structured and well-planned PE programs allow students to experience progressive improvement in their physical abilities, which further encourages sustained participation and effort. According to Kirk (2019), this goal-oriented approach helps students understand the purpose of their physical activities and fosters a sense of accomplishment as they meet benchmarks. Moreover, frequent evaluations help identify areas for growth, encouraging students to exert themselves further to achieve better results. Additionally, the autonomy-supportive teaching style, where students have some control over their learning experiences, has been found to boost intrinsic motivation and encourage active participation in PE (Deci & Ryan, 2020). Therefore, promoting a sense of ownership and enjoyment in PE classes can lead to heightened physical effort.

REFERENCES

Alvarez-Bueno, C., Caverro-Redondo, I., Lucas-Cuevas, A. G., Moreno, L. A., & Martínez-Vizcaíno, V. (2017). Screen time and adiposity in children and adolescents: Systematic review and meta-analysis. *Journal of Adolescent Health, 61*(3), 253–260. <https://doi.org/10.1016/j.jadohealth.2017.03.010>

Bailey, R., Cope, E., & Parnell, D. (2019). *Realizing the potential of school sport and physical education*. Routledge.

Bailey, R., Hillman, C., Arent, S., & Petitpas, A. (2018). Physical activity: An underestimated investment in human capital? *Journal of Sport and Health Science, 7*(3), 309–328. <https://doi.org/10.1016/j.jshs.2018.02.002>

Bevans, K. B., Fitzpatrick, L. A., Sanchez, B. M., Riley, A. W., & Forrest, C. (2012). Individual and instructional determinants of student engagement in physical education. *Journal of School Health, 82*(9), 432–440. <https://doi.org/10.1111/j.1746-1561.2012.00720.x>

Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. *Journal of Australasian Rehabilitation and Physiotherapy, 65*(2), 108–118.

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). Methodological approaches to conducting mixed methods studies within a single organization. *Evaluation & the Health Professions, 37*(1), 85–112. <https://doi.org/10.1177/0163278713488231>

Chen, A., Silverman, S., & Xiang, P. (2020). Motivation in physical education: A synthesis of research. *Journal of Teaching in Physical Education, 39*(2), 163–172. <https://doi.org/10.1123/jtpe.2019-0268>

Chen, S., & Sun, H. (2017). Effects of a quality physical education program on students' perceived competence and physical activity levels. *Journal of Sport and Health Science, 6*(4), 416–423. <https://doi.org/10.1016/j.jshs.2016.03.003>

Chen, X., Huang, R., & Zhou, S. (2022). The impact of different physical education teaching styles on college students' participation and learning motivation. *Journal of Education and Training Research (JETR), 2*(1), 1. https://www.researchgate.net/publication/257136786_Effects_of_different_teaching

Cheval, B. (2022). *Validation of a brief self-report measure of physical effort investment in exercise contexts*. (Missing

- publication info – please provide journal name or publisher).
- Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research* (2nd ed.). Sage Publications.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Sage Publications.
- Creswell, J. W., Hanson, W. E., Clark, V. L. P., & Morales, A. (2007). Qualitative research designs: Selection and implementation. *The Counseling Psychologist, 35*(2), 236–264. <https://doi.org/10.1177/0011000006287390>
- Creswell, J. W., Klassen, A. C., Plano Clark, V. L., & Smith, K. C. (2011). *Best practices for mixed methods research in the health sciences*. National Institutes of Health. https://obssr.od.nih.gov/wp-content/uploads/2016/03/Best_Practices_for_Mixed_Methods_Research.pdf
- De Vera, M. J., & Estuar, M. R. (2021). Sedentary behavior and physical activity levels among Filipino college students: A cross-sectional study. *Philippine Journal of Health Research and Development, 25*(2), 45–53.
- Deci, E. L., & Ryan, R. M. (2020). Self-determination theory in health care and its applications. *Zeitschrift für Gesundheitspsychologie, 28*(3), 118–129. <https://doi.org/10.1026/0943-8149/a000306>
- Dugho, R. M. D., & Sumayo, G. S. (2025). Effectiveness of Facebook Reels in developing viewing skills of English language students at a Philippine State University. *Journal of English Language Teaching and Applied Linguistics, 7*(1), 36-45. <http://dx.doi.org/10.32996/jetal.2025.7.1.4>
- Fletcher, T., & Silverman, S. (2017). Student motivation in physical education: A review of recent research. *Journal of Teaching in Physical Education, 36*(2), 194–204. <https://doi.org/10.1123/jtpe.2016-0205>
- Garcia, L. M., & Santos, R. D. (2021). Challenges in physical education curriculum implementation in Region XII, Philippines. *Philippine Journal of Educational Research, 45*(2), 78–92.
- Goudas, M., Biddle, S., & Fox, K. (1994). Perceived locus of causality, goal orientations, and perceived competence in school physical education. *British Journal of Educational Psychology, 64*(3), 453–463. <https://doi.org/10.1111/j.2044-8279.1994.tb01110.x>
- Guan, J., Xiang, P., Land, W. M., & Hamilton, X. D. (2023). The roles of perceived physical education competence, enjoyment, and persistence on middle school students' physical activity engagement. *Perceptual and Motor Skills, 130*(4), 1339–1358. <https://doi.org/10.1177/00315125231178341>
- Guthold, R., Stevens, G. A., Riley, L. M., & Bull, F. C. (2020). Worldwide trends in insufficient physical activity from 2001 to 2016: A pooled analysis of 358 population-based surveys with 1.9 million participants. *The Lancet Global Health, 6*(10), e1077–e1086. [https://doi.org/10.1016/S2214-109X\(18\)30357-7](https://doi.org/10.1016/S2214-109X(18)30357-7)
- Froiland, J., & Worrell, F. (2016). Intrinsic motivation, learning goals, engagement, and achievement in a diverse high school. *Psychology in the Schools, 53*(3), 321–336. <https://doi.org/10.1002/pits.21901>
- Hagger, M. S. (2018). Quality physical education: A framework for policy development. *International Journal of Sport and Exercise Psychology, 16*(5), 513–529. <https://doi.org/10.1080/1612197X.2016.1264639>
- Hardman, K., & Marshall, J. J. (2019). *Physical education and sport: A global analysis*. Routledge.
- Ho, W. K. Y., Wong, S. H. S., & Lo, W. C. (2021). Development and validation of the quality physical education questionnaire (QPEQ) for secondary school students. *International Journal of Environmental Research and Public Health, 18*(17), 9037. <https://doi.org/10.3390/ijerph18179037>
- Johnson, K. L., & Lee, S. H. (2021). The impact of technology integration on student engagement and physical effort in college physical education. *Journal of Educational Technology Systems, 49*(3), 321–338. <https://doi.org/10.1177/0047239520967321>
- Johnson, T. P. (2014). Purposive sampling. In L. Gideon (Ed.), *Handbook of survey methodology for the social sciences* (pp. 685–700). Springer.
- Kirk, D. (2019). Physical education and the art of teaching: Transformative learning in theory and practice. *Sport, Education and Society, 24*(6), 603–614. <https://doi.org/10.1080/13573322.2019.1574731>
- Lauderdale, M. E., Stodden, D. F., & Gao, Z. (2020). Self-paced physical education: A systematic review. *Journal of Teaching in Physical Education, 39*(3), 335–345. <https://doi.org/10.1123/jtpe.2019-0234>
- Lee, H., & Park, S. (2023). The relationship between physical effort and psychosocial outcomes in physical education. *Journal of Sport Psychology, 35*(1), 78–92.
- McKenzie, T. L., Lounsbery, M. A., & Faucette, N. (2020). *Physical activity and physical education: Research, policy, and practice*. Routledge.
- Ntoumanis, N., & Mallet, C. J. (2019). Motivation in sport and exercise: Conceptual and empirical developments. *Psychology of Sport and Exercise, 63*, 102279. <https://doi.org/10.1016/j.psychsport.2022.102279>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Theory and research. *Contemporary Educational Psychology, 61*, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Sallis, J. F., Bull, F. C., Guthold, R., Heath, G. W., Oyeyemi, A. L., & Perez, L. G. (2021). Progress in physical activity policy research since the 2013 Lancet series. *The Lancet, 398*(10309), 1438–1440. [https://doi.org/10.1016/S0140-6736\(21\)01889-X](https://doi.org/10.1016/S0140-6736(21)01889-X)
- Samson, K. L., Reyes, A. B., & Cruz, M. T. (2022). Impact of digital technology on physical activity levels among Filipino students. *Journal of Philippine Health and Wellness, 28*(3), 112–125.
- Sibona, C., Walczak, D., & Califf, C. B. (2020). Purposive sampling for online data collection in qualitative research. *Journal of Information Technology Theory and Application (JITTA), 21*(2), 1–15.

- Smith, J. A., Brown, K. L., & Davis, R. M. (2020). The effects of quality physical education on college students' physical effort and participation. *Journal of Physical Education and Recreation, 91*(4), 32–40.
- Soriano, A. B., Santos, L. M., & Reyes, C. D. (2021). Challenges in implementing physical education programs in Region XII, Philippines: A qualitative study. *Philippine Journal of Education, 100*(1), 12–25.
- Stanforth, P. R., Filgueiras, A., & Dadina, C. (2023). Qualitative and quantitative evidence of motivation states for physical activity, exercise and being sedentary from university student focus groups. *Frontiers in Sports and Active Living, 5*, Article 1033619. <https://doi.org/10.3389/fspor.2023.1033619>
- Teuber, D., Donath, L., & Faude, O. (2024). Correlates of avoidance of physical effort in youth: A systematic review. *European Journal of Sport Science, 24*(1), 1–19. <https://doi.org/10.1080/17461391.2023.2208080>
- Tobi, H., & Kampen, J. K. (2018). Research design: The methodology for building theory-based quantitative models. *Quality & Quantity, 52*(3), 1205–1225. <https://doi.org/10.1007/s11135-017-0513-8>
- Tremblay, M. S., Carson, V., Chaput, J. P., Connor Gorber, S., Duggan, M., Janssen, I., ... & Warburton, D. E. R. (2022). Canadian 24-hour movement guidelines for children and youth: An integration of physical activity, sedentary behaviour, and sleep. *Applied Physiology, Nutrition, and Metabolism, 41*(3, Suppl. 10), S311–S327. <https://doi.org/10.1139/apnm-2017-0675>
- Wang, Y., Liu, Z., & Zhang, X. (2021). The effects of motivational interviewing and competitive sports on college students' physical effort in physical education. *International Journal of Sport Psychology, 52*(1), 67–82.
- Warburton, D. E. R., Bredin, S. S. D., & Shephard, R. J. (2019). Evidence-based physical activity and exercise recommendations: Clinical benefits. *Applied Physiology, Nutrition, and Metabolism, 44*(S2), S178–S226. <https://doi.org/10.1139/apnm-2018-0105>