

# Physical Activity Domains and Teaching Effectiveness in the New Normal

Levann Dulf D. Del Pilar

## Abstract

This study determined the relationship between physical activity domains and the teaching effectiveness of teachers in the new normal in the City Schools Division of Cabuyao, Laguna, Philippines in 2021-2022. The respondents of the study were 79 female and 26 male teachers determined through simple random sampling technique with 4% margin of error. Data gathered using validated researcher-made survey questionnaire were analyzed using arithmetic mean, standard deviation, and Spearman's Rank-Order correlation. The study found a low positive association between physical activity domains and teachers' teaching effectiveness in the new normal. The direction and level of correlation between the independent and dependent variables are both positive implying that there is, at the very least, a relationship between physical activity and teaching quality. Hence, physical activity and quality of teaching are directly proportional. Findings also suggest that teacher's effectiveness depends on their teaching methods, lesson plans, classroom management, and student learning time while physical activity is only a small part of a teacher's job. While the findings suggest physical activity has low impact on teaching, this study still suggest teachers to be physically active in their day-to-day routines and be proactive in taking steps to help them remain physically fit in order to reduce the stress, mental disorders, and emotional suffering.

**Keywords:** *Physical Activity Domains, Teaching Effectiveness, New Normal Education, Correlation*

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## About the author:

A licensed high school teacher and a researcher in the Department of Education, Philippines. He is a graduate of Master of Arts in Education Major in Physical Education. At present, he is serving as school sports coordinator and a bonafide member of the Filsuntad Martial Arts – Philippine-Based. Corresponding email: [vandulf20@gmail.com](mailto:vandulf20@gmail.com)

## 1. Introduction

Several studies linked students' academic achievement to numerous factors such as teacher competence (Podungge et al., 2019; Fauth et al., 2019; Nbina, 2012) student interest (Arhin & Yanney, 2020; Sauer, 2012) lesson design (Ayra & Kösterelioğlu, 2021); learner capacities (Beharu, 2018), learning environment (Olufemi, 2018), school facilities and equipment (Olugbenga, 2019; Ramli & Zain, 2018; Ekundayo, 2012) among others. However, the teacher is still the primary factor affecting students' academic achievement (Siachifuwe, 2017; Sakız1, 2015; Sirait, 2016; Anwar & Nawaz, 2020; Obilor, 2019). For instance, teachers plan to verify lesson alignment and target learning gaps before teaching. In addition, helping students discover essential standards, digest new content, practice and enhance reasoning abilities, and compare similarities and contrasts would boost academic performance. A few of a teacher's professional responsibilities for enhancing each student's education include initiating efforts to learn more, improve teaching, reach new heights in teaching and learning, and engage in physical activities that enhance mental processes and enable teachers to have more precise and better ideas, judgment, and decisions. As Terada (2019) quips, teachers are the key to educational achievement given their multitude of tasks. However, the teachers' physical and mental health are at stake (Salinas-Falquez et al., 2022; Aperribai et al., 2020; Jimenez, 2021; Sebastian, 2017; De Simone et al., 2016).

Physically active persons have better sleep, better daily functioning, higher mental performance, a lower risk of dementia, and improved musculoskeletal and bone stability and endurance (Physical Inactivity, n.d.). However, during the COVID-19 outbreak, teachers worldwide, including the Philippines, became inactive. Aperribai et al. (2020) indicated that one reason educators are physically inactive during pandemic is increased stress from lockdown workload. Even though teachers' work performance and daily routines were affected by lockdown, community quarantine, hybrid work arrangements, and lack of access to regular physical activity, student learning is still reflected in assessment outcomes, problem-solving skills, and attitudes. Accordingly, teachers need physical activity to actively perform their duties (Sebastian, 2017; De Simone et al., 2016). Researches argue that physical activity makes people more productive, less fatigued, less bored, and invigorated. Hence, teachers are encouraged to have physical exercise at home.

While there are studies focused on teaching effectiveness (i.e. Petrila et al., 2022; Chaturvedi et al., 2021; Taja-on et al., 2021) and teachers' physical activity during the pandemic (i.e. Fontana et al., 2022; Aperribai et al., 2020; Özcan & Sarac, 2021), there are only few studies correlating the physical activity of teachers and their teaching effectiveness (i.e. Fontana et al., 2022). There are also very limited correlational studies on physical activity and teaching effectiveness in the Philippine setting. Hence, this study assesses the relations of physical activity domains on the teaching effectiveness in the new normal in the City Schools Division of Cabuyao, Laguna, Philippines during the Academic Year 2021–2022. Because the pandemic has prompted a movement away from traditional learning in the classroom and toward online learning, it is crucial to understand how physical exercise helps teachers be more effective in their teaching. This study provides important insights into how physical activity can contribute to the teaching effectiveness of in the new normal.

## **2. Literature Review**

More than one-fourth of the world's adult population is insufficiently active (Physical activity, n.d.). Consequently, Skrebutnait and Karanauskiene (2019) found that inactive people frequently experienced physical and psychological health difficulties as a result of their inactivity. Individuals with disabilities are less physically active than adults without impairments (Hassett et al., 2021) and they report differing physical activity profiles and restrictions. In contrast, Shin et al. (2018) found that middle-aged people are less likely to participate in physical activity and are more likely to experience unhealthy aging than younger or older adults. As identified by Dumlao-Abadilla (2017), physical inactivity is caused by a lack of time due to work (57%), lack of personal motivation (47%), modern life diversions (47%), lack of accessible sports and leisure venues (36%), and other critical impediments (45%).

Researchers emphasized the advantages of engaging in any type of physical activity. For example, Coelho-Ravagnani et al. (2021) stressed that physical activity improves physical, mental, and social well-being. Similarly, Asiamah and Mensah (2017) found physical activity as an effective treatment for depression, which is a common condition among workaholics or people who work for extended periods without a little bit of relaxation, such as teachers in the new normal. According to experts, physical jobs had a decreased risk of depression. According

to Dias et al. (2017), physical activity improves the elderly's functioning, cognitive performance, and risk of falling. Physical activities such as bicycling and gardening provide a number of substantial health benefits for individuals (Piatkowski & Bopp, 2021; Grontved et al., 2019; Bopp et al., 2018; Ma et al., 2021; Veldheer et al., 2021). However, Temporelli (2021) underlined the harmful impacts of high occupational physical activity in the workplace. It has been linked to negative health outcomes such as cardiovascular disease, work absences due to illness, and death from any cause.

In terms of the teaching profession, Apperibai et al. (2020) found teachers who engage in regular physical exercise reported significantly higher levels of job satisfaction as well as higher levels of perceived health and physical fitness. Findings showed that participating in regular physical activity is a significant contributor to both the general well-being and performance of teachers. It was also discovered that lecturers who participated in greater physical activity reported higher levels of job satisfaction, improved perceptions of their own health, and enhanced levels of physical fitness as compared to lecturers who did not participate in any physical activity. White et al. (2018) revealed that physical activity and intellectual health aided in the improvement of teachers' mental function. Hence, physical activity should be seen as an important part of a teacher's work-life balance, which may improve teacher's overall job satisfaction.

In the study of Bogaert et al. (2014), the levels of physical activity teachers engage in are connected with both their physical and psychological health outcomes. There was a correlation between higher levels of physical activity and better results in terms of physical health, such as improved cardiovascular health, reduced body mass index, and lower levels of depression, anxiety, and stress. On the other hand, lower levels of physical activity were connected to poorer physical outcomes, such as higher levels of depression, anxiety, and stress, as well as higher body mass indices and blood pressures. The research also discovered that engaging in physical activity was connected with better self-reported outcomes for psychological health, such as lower levels of stress, anxiety, and depression. The findings clearly indicated that the amount of physical exercise that teachers engage in should be considered significant for both their physical and psychological wellbeing.

In terms of teaching, findings from the research conducted by Zinsser et al. (2016) indicated that unmet student needs may be a potentially major source of stress for teachers. As

the found that the availability of supports and resources to meet the needs of children may have an impact on teachers' well-being, it is common for a student's instructor to be the first person to recognize that anything is amiss and take action in response to the situation when the student is exposed to traumatic events at home or does not have adequate resources to succeed in the classroom. It is possible for a teacher to experience a sense of powerlessness when it comes to meeting the needs of a particular student when there are insufficient student support services available at the school or no systems in place to connect students with the necessary services available in the community. Another possibility is that the teacher will become the major support system for the student. Both of these situations put a strain on the instructor's emotional resources. Amparo (2018) notes that effective teaching entails having a good impact on a student's life, in turn students' academic performance usually evaluates a teacher's teaching effectiveness (Alrefae & Al-Ghamid, 2019).

Given the arguments and premises presented, this study argues that physical activity helps improve the teaching effectiveness. Hence, the higher the physical activity, the more teaching effectiveness is achieved.

### **3. Methodology**

This study adopted the quantitative method, non-experimental research with observational approach, and a descriptive-correlational design. The simple random sampling technique with a 4% margin of error was used to select 105 respondents, consisting twenty-six (26) male and seventy-nine (79) female teachers from different subject specializations such as Filipino, English, Mathematics, Science (Chemistry, Biology, Physics, General Science etc.), Social Studies, Values Education, Technology and Livelihood Education (TLE), and Music, Arts, Physical, and Health Education (MAPEH) with age ranges from 21 to 64 years old. These teachers were not on leave in any case and currently performing their sworn job.

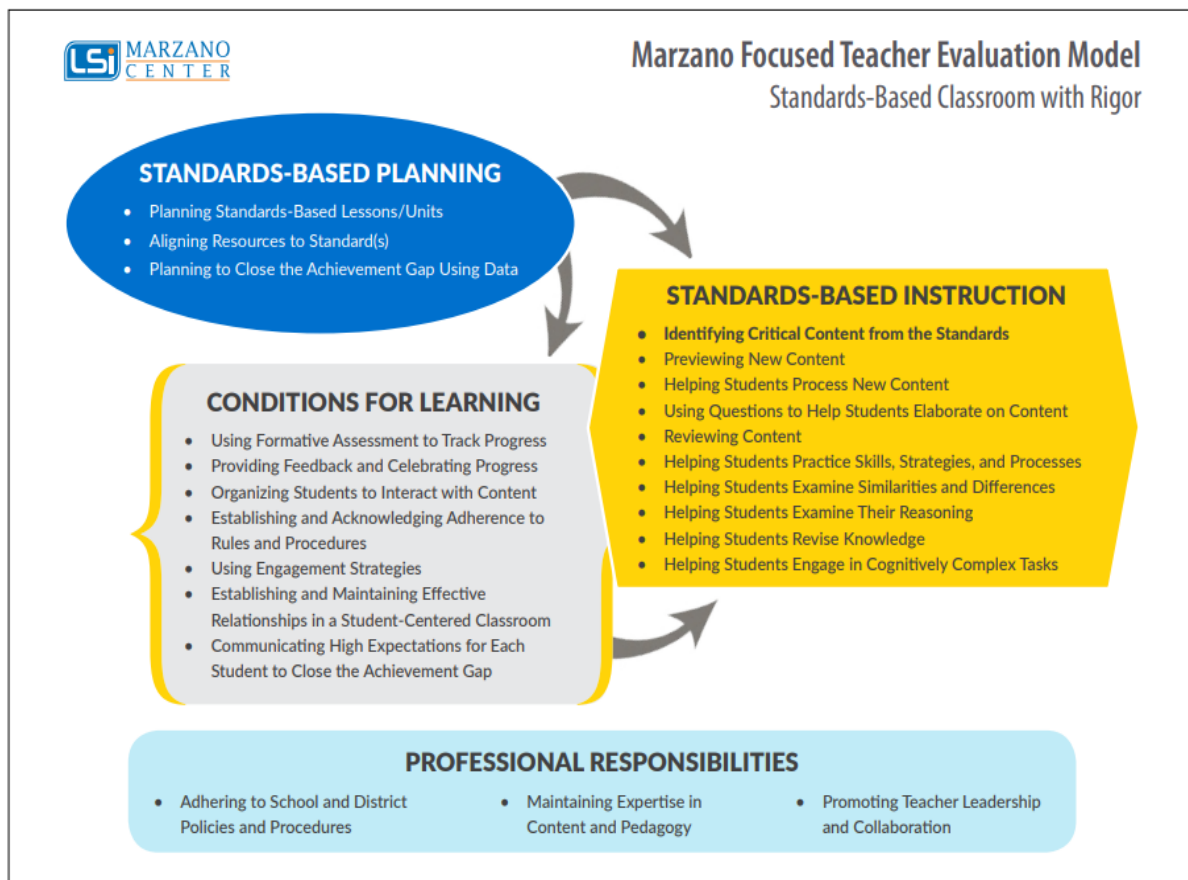
The instrumentations used in the study were both adapted from Booth (2015) and Marzano et al. (2021). The former is the International Physical Activity Questionnaire with four domains such as job-related activity, transportation physical activity, housework, house maintenance and caring for family and recreation, sport and leisure-time physical activity composed of 11 items while the latter is the Focused Teacher Evaluation Model with 23 essential elements in four domains such as standards-based planning, standards-based

instruction, conditions for learning, and professional responsibilities. Both survey questionnaires were rated with 5-point Likert scale of (5) Always, (4) Frequently, (3) Sometimes, (2) Seldom and (1) Never.

The study was anchored on Marzano's Focused Teacher Evaluation Model (FTEM) highlighting calculable teacher behaviours and capacities into 23 crucial manners to quantify effectiveness within four domains of expertise: standards-based planning, standards-based instruction, conditions for learning, and professional responsibilities shown in figure 1.

**Figure 1**

*The Marzano's Focused Teacher Evaluation Model (2021)*



Source: Marzano, R. et al. (2021). *The Marzano Focused Teacher Evaluation Model*. Learning Sciences International. <https://www.learningsciences.com/marzano-framework/teacher-evaluation/>

This study used convergent validity, a type of construct validity, to ensure that the results matched the intended outcome (Middleton, 2022). Pearson r was used to determine each item's validity by correlating it to the total items, and each instrument item was valid.

The study used Cronbach's Alpha to analyze internal consistency. The reliability of the items in Focused Teacher Evaluation questionnaire showed standards-based planning ( $\alpha = 0.9117$ ,  $n = 18$ , 3 items), standards-based instruction ( $\alpha = 0.9121$ ,  $n = 18$ , 10 items), conditions for learning ( $\alpha = 0.8654$ ,  $n = 18$ , 7 items), and professional responsibilities ( $\alpha = 0.8577$ ,  $n = 18$ , 3 items) had very high reliability. Meanwhile, the International Physical Activity Questionnaire's reliability testing showed job-related/occupational activities ( $\alpha = 0.8540$ ,  $n = 18$ , 3 items) with high reliability, transportation physical activity ( $\alpha = 0.6993$ ,  $n = 18$ , 2 items) with quite high reliability and household chores, house maintenance, and family caring ( $\alpha = 0.7684$ ,  $n = 18$ , 3 items) with high reliability. Furthermore, Kolmogorov-Smirnov Data normality showed teaching effectiveness ( $p=0.001$ ) and physical activity ( $p=0.004$ ) are not normally distributed.

To proceed with data gathering, a letter seeking permission for the conduct of the study was sent to the Schools Division Superintendent. Upon acceptance, a Google form questionnaire was sent to the teachers virtually through email and social media platforms. An ample time was given to them to reflect before they answered. Google form automatically collected responses in a spreadsheet. The study's results were examined using a statistical method to prove or disprove the null hypothesis.

As to data analysis, mean and standard deviation were used to examine teacher-respondents' physical activity involvement as well as teaching effectiveness. Spearman's Rank order correlation was used to test significant relationship between the physical activity domains and teaching effectiveness. It is a statistical method for determining the strength of the association between two variables, however it is important to follow the research ethical guidelines to make sure the results are trustworthy. It can be used to show a strong association between different kinds of physical activity and the quality of a teacher's lesson, although it can raise some ethical concerns. The physical activity data, for instance, must be gathered in a responsible fashion. Participant understanding of the study's goals and potential dangers is essential for getting their informed consent. Furthermore, researchers need to be alert to the possibility of data bias and take measures to reduce it. Moreover, the study's ramifications should be taken into account. Considering how to put the results of a Spearman's Rank Order Correlation between physical activity domains and classroom performance in practice is crucial if those results prove to be positive. This research should not be utilized to draw broad

conclusions, such as that exercise has no influence on teacher performance. Instead, the results of this study should be used to shape and direct future investigations into this topic.

#### 4. Findings and Discussion

Table 1 explains the level of physical activity involvement of teacher-respondents in different domains such as occupational, transportation/utilitarian, domestic and leisure time.

**Table 1**

*The Level of Physical Activity Involvement of Teachers*

Statement	M	SD	Interpretation
1. I engage in vigorous physical activity for at least 75 to 150 minutes per week, like climbing upstairs, cleaning the classroom, chairs, tables, windows as part of my work.	4.10	0.71	High Level
2. I do moderate physical activities for at least 150 to 300 minutes per week, like sorting self-learning modules and weekly home learning plan or carrying light loads as part of my work. (Walking is excluded.)	4.13	0.69	High Level
3. I walk for at least 10 minutes at a time as part of my job. ( <i>Please exclude any walking you did to and from work.</i> )	4.22	0.72	High Level
<b>Occupational Domain</b>	<b>4.15</b>	<b>0.63</b>	<b>High Level</b>
4. I travel using a bicycle for at least 10 minutes at a time to go from place to place.	2.96	1.50	Average Level
5. I walk for at least 10 minutes at a time to go from place to place.	3.97	0.99	High Level
<b>Transportation/Utilitarian Domain</b>	<b>3.47</b>	<b>1.08</b>	<b>Average Level</b>
6. I do vigorous activities like heavy lifting, chopping wood, shoveling soil, or digging in the garden or yard.	3.37	1.28	Average Level
7. I do moderate activities like carrying light loads, sweeping, washing windows, and raking in the garden or yard.	4.05	0.87	High Level
8. I do moderate activities like carrying light loads, washing windows, scrubbing floors, and sweeping inside my home?	4.13	0.77	High Level
<b>Domestic Domain</b>	<b>3.85</b>	<b>0.84</b>	<b>High Level</b>
9. I walk for at least 10 minutes at a time in my leisure time.	4.11	0.84	High Level
10. I do vigorous physical activities like aerobics, running, fast bicycling, or fast swimming in my leisure time.	3.48	1.19	Average Level
11. I do moderate physical activities like bicycling at a regular pace, swimming at a regular pace, and doubles badminton in my leisure time.	3.33	1.30	Average Level
<b>Leisure time Domain</b>	<b>3.64</b>	<b>1.00</b>	<b>High Level</b>
<b>Overall Level of Physical Activity Involvement</b>	<b>3.75</b>	<b>0.79</b>	<b>High Level</b>

*Legend: 4.50 – 5.00 Very High Level, 3.50-4.49 High Level, 2.50-3.49 Average Level, 1.50-2.49 Low Level, 1.00-1.49 Very Low Level*

In occupational domain, the mean values of the indicators concerning physical activity involvement range from 4.10 to 4.22. The statement with the highest mean is “*I walk for at least 10 minutes at a time as part of my job*” ( $x = 4.22$ ,  $SD = 0.72$ ) with an interpretation “High



Level”. It means that the majority of the respondents had a high extent of agreement that they engage themselves to at least 10-minute walk at a time as part of their job. Nevertheless, the statement with the least mean is “*I engage in vigorous physical activity for at least 75 to 150 minutes per week, like climbing upstairs, cleaning the classroom, chairs, tables, windows as part of my work*” ( $x = 4.10$ ,  $SD = 0.71$ ) with interpretation of “High Level” as well. It means that least of them had a high extent of agreement that they engage in vigorous physical activity for at least 75 to 150 minutes per week, like climbing upstairs, cleaning the classroom, chairs, tables, window as part of their work. Overall, the respondents’ perceived level of physical activity involvement in occupational domain falls to “High Level” ( $x = 4.15$ ,  $SD = 0.63$ ).

In transportation/utilitarian domain, the mean values of the indicators concerning physical activity involvement range from 2.96 to 3.97. The statement with the highest mean is “*I walk for at least 10 minutes at a time to go from place to place*” ( $x = 3.97$ ,  $SD = 0.99$ ) with an interpretation “High Level.” It means that most of the respondents had a high extent of agreement that they walk for at least 10 minutes at a time to go from place to place. Nevertheless, the statement with the least mean is “*I travel using a bicycle for at least 10 minutes at a time to go from place to place*” ( $x = 2.96$ ,  $SD = 1.50$ ) with interpretation of “Average Level”. It means that least of them had an average extent of agreement that for them to go to from place to place, they travel using a bicycle for at least 10 minutes at a time. Overall, the respondents’ perceived level of physical activity involvement in transportation/utilitarian domain falls to “Average Level” ( $x = 3.47$ ,  $SD = 1.08$ ).

In domestic domain, the mean values of the indicators concerning physical activity involvement under domestic domain range from 3.37 to 4.13. The statement with the highest mean is “*I do moderate activities like carrying light loads, washing windows, scrubbing floors, and sweeping inside my home*” ( $x = 3.97$ ,  $SD = 0.99$ ) with an interpretation “High Level”. It means that most of the respondents had a high extent of agreement that they do moderate activities like carrying light loads, washing windows, scrubbing floors, and sweeping inside their home. Nevertheless, the statement with the least mean is “*I do vigorous activities like heavy lifting, chopping wood, shoveling soil, or digging in the garden or yard*” ( $x = 3.37$ ,  $SD = 1.28$ ) with interpretation of “Average Level.” It means that least of them had an average extent of agreement that they do vigorous activities like heavy lifting, chopping wood,

shoveling soil, or digging in the garden or yard. Overall, the respondents' perceived level of physical activity involvement in domestic domain falls to "High Level" ( $x = 3.85$ ,  $SD = 0.84$ ).

In leisure time domain, the mean values of the indicators concerning physical activity involvement under domestic domain range from 3.33 to 4.11. The statement with the highest mean is "*I walk for at least 10 minutes at a time in my leisure time*" ( $x = 4.11$ ,  $SD = 0.84$ ) with an interpretation "High Level". It means that most of the respondents had a high extent of agreement that they walk for at least 10 minutes at a time in my leisure time. Nevertheless, the statement with the least mean is "*I do moderate physical activities like bicycling at a regular pace, swimming at a regular pace, and doubles badminton in my leisure time*" ( $x = 3.33$ ,  $SD = 1.28$ ) with interpretation of "Average Level." It means that least of them had an average extent of agreement that they do moderate physical activities like bicycling at a regular pace, swimming at a regular pace, and doubles badminton in my leisure time. Overall, the respondents' perceived level of physical activity involvement in leisure time domain falls to "High Level" ( $x = 3.64$ ,  $SD = 1.00$ ).

The overall level of physical activity involvement of teacher-respondents in all domains falls to "High Level" ( $x = 3.75$ ,  $SD = 0.79$ ). These results are congruent with Sunda et al. (2021) on the variations of physical activity levels by job experience, with younger teachers being more active than their older counterparts. Similarly, Brito et al. (2012) also found that educators aged 31 to 42 had higher low physical activity levels than teachers aged 55 to 66, older teachers were less active, and male teachers had higher levels of low physical activity than female teachers. The results also confirm Atan et al. (2012) that teachers' levels of physical activity increase with age. Marriage and gender also affect teaching. These are characterized by the respondents exercise 75-300 minutes per week (low to moderate) and walk at least 10 minutes for work, travel, and leisure. They also carry lightweight loads, sweep, wash windows, scrub floors, and sweep inside their homes.

Table 2 shows that as per standard-based planning, the mean values of the indicators pertaining to teaching effectiveness range from 4.38 to 4.57. The statement with the highest mean is "*I plan standards-based lessons/units*" ( $x = 4.57$ ,  $SD = 0.58$ ) with an interpretation "Very High Level". It means that most of the respondents had a very high extent of agreement that they plan standards-based lessons/units. Nevertheless, the statement with the least mean is "*I plan to close the achievement gap using data*" ( $x = 4.38$ ,  $SD = 0.56$ ) with interpretation

of “High Level”. It means that least of them had a high extent of agreement that they plan to close the achievement gap using data. Overall, the respondents’ perceived level of teaching effectiveness of teachers in standards-based planning falls to “Very High Level” ( $x = 4.50$ ,  $SD = 0.48$ ).

**Table 2**

*The Level of Teaching Effectiveness of Teachers*

Statement	M	SD	Interpretation
1. I plan standards-based lessons/units.	4.57	0.52	Very High Level
2. I align resources to standard(s).	4.54	0.56	Very High Level
3. I plan to close the achievement gap using data.	4.38	0.56	High Level
<b>Standards-based Planning</b>	<b>4.50</b>	<b>0.48</b>	<b>Very High Level</b>
4. I identify critical content from the standards.	4.34	0.59	High Level
5. I preview new content.	4.50	0.56	Very High Level
6. I help students process new content.	4.55	0.52	Very High Level
7. I use questions to help students elaborate on content.	4.63	0.54	Very High Level
8. I review content.	4.61	0.53	Very High Level
9. I help students practice skills, strategies, and processes.	4.53	0.54	Very High Level
10. I help students examine similarities and differences.	4.56	0.54	Very High Level
11. I help students examine their reasoning.	4.54	0.56	Very High Level
12. I help students revise their knowledge.	4.48	0.57	High Level
13. I help students engage in cognitively complex tasks.	4.46	0.59	High Level
<b>Standards-based Instruction</b>	<b>4.52</b>	<b>0.45</b>	<b>Very High Level</b>
14. I use formative assessment to track progress.	4.58	0.53	Very High Level
15. I provide feedback and celebrate progress.	4.46	0.59	High Level
16. I organize students to interact with content procedures.	4.47	0.56	High Level
17. I use engagement strategies.	4.50	0.59	Very High Level
18. I establish and maintain effective relationships in a student-centered classroom.	4.58	0.52	Very High Level
19. I communicate high expectations for each student to close the achievement gap.	4.31	0.59	High Level
<b>Conditions for Learning</b>	<b>4.34</b>	<b>0.57</b>	<b>High Level</b>
20. I adhere to school and district policies and procedures.	4.46	0.47	High Level
21. I maintain expertise in content and pedagogy.	4.62	0.53	Very High Level
22. I promote teacher leadership and collaboration.	4.52	0.57	Very High Level
<b>Professional Responsibilities</b>	<b>4.56</b>	<b>0.55</b>	<b>Very High Level</b>
<b>Overall Level of Teaching Effectiveness</b>	<b>4.57</b>	<b>0.48</b>	<b>Very High Level</b>

*Legend: 4.50 – 5.00 Very high, 3.50-4.49 High, 2.50-3.49 Average, 1.50-2.49 Low, 1.00-1.49 Very low level*

In standards-based instruction, the mean values of the indicators pertaining to teaching effectiveness range from 4.34 to 4.63. The statement with the highest mean is “*I use questions to help students elaborate on content*” ( $x = 4.63$ ,  $SD = 0.54$ ) with an interpretation “Very High Level”. It means that most of the respondents had a very high extent of agreement that they use inquiries to assist students elaborate on content. Nevertheless, the statement with the least

mean is “*I identify critical content from the standards*” ( $x = 4.34$ ,  $SD = 0.59$ ) with interpretation of “High Level”. It means that least of them had a high extent of agreement that they identify critical content from the standards. Overall, the respondents’ perceived level of teaching effectiveness of teachers in standards-based instruction falls to “Very High Level” ( $x = 4.52$ ,  $SD = 0.45$ ).

In conditions for learning, the mean values of the indicators pertaining to teaching effectiveness of teachers range from 4.31 to 4.58. The statements with the highest mean are “*I use formative assessment to track progress*” ( $x = 4.58$ ,  $SD = 0.53$ ) and “*I establish and maintain effective relationships in a student-centered classroom*” ( $x = 4.58$ ,  $SD = 0.52$ ) both with an interpretation “Very High Level”. It means that most of the respondents had a very high extent of agreement that they use formative assessment to track progress and they establish and maintain effective relationships in a student-centered classroom. Nevertheless, the statement with the least mean is “*I communicate high expectations for each student to close the achievement gap*” ( $x = 4.31$ ,  $SD = 0.59$ ) with interpretation of “High Level”. It means that least of them had a high extent of agreement that they communicate high probabilities for every student to close the achievement gap. Overall, the respondents’ perceived level of teaching effectiveness of teachers in conditions for learning falls to “High Level” ( $x = 4.34$ ,  $SD = 0.57$ ).

In professional responsibilities, the mean values of the indicators pertaining to teaching effectiveness of teachers in terms of responsibilities range from 4.46 to 4.62. The statement with the highest mean is “*I maintain expertise in content and pedagogy*” ( $x = 4.62$ ,  $SD = 0.53$ ) with an interpretation “Very High Level.” It means that most of the respondents had a very high extent of agreement that they maintain expertise in content and pedagogy. Nevertheless, the statement with the least mean is “*I adhere to school and district policies and procedures.*” ( $x = 4.46$ ,  $SD = 0.47$ ) with interpretation of “High Level.” It means that least of them had a high extent of agreement that they adhere to school and district policies and procedures. Overall, the respondents’ perceived level of teaching effectiveness of teachers in professional responsibilities falls to “Very High Level” ( $x = 4.56$ ,  $SD = 0.55$ ).

The overall level of teaching effectiveness of teacher-respondents in all areas falls to “Very High Level” ( $x = 4.57$ ,  $SD = 0.48$ ). This shows that teachers are very much capable of lesson planning and aligning resources to standards. They are also well-versed in using formative assessments, integrating engagement strategies, and establishing and maintaining

effective relationships in a student-centered classroom. Moreover, they are very much open to maintain expertise in content and pedagogy, and very much willing to promote teacher leadership and collaboration. These characteristics are mentioned in the study of Stronge et al. (2015) that effective teachers plan well, use appropriate materials, convey goals to students, sustain a quick pace, frequently assess student work, and employ a range of teaching styles. They maximize class time and offer well-coordinated instruction. However, Fernández et al. (2019) found female teachers had better learning environments than male teachers and managed the classroom better. Certainly, there were discrepancies between less and more experienced teachers (those with fewer than ten years of expertise) (those with between 21 and 30 years of experience). Less experienced teachers rated higher learning atmosphere, classroom management, instruction clarity, differentiation, and teaching methods. Highly experienced teachers had better classroom management and instructional clarity (those with more than 30 years of experience). Moderately experienced teachers (11-20 years) had better classroom management and instruction.

**Table 3**

*The Significant Relationship between the Physical Activity Domains and the Teaching Effectiveness of Teachers*

Variables	Spearman Correlation	p-value
Physical Activity Domains and the Teaching Effectiveness	0.304**	0.002

Legend: Significant if  $p < 0.05$ ; 0.90 to 1.00 Very high correlation, 0.70 to 0.90 High correlation, 0.50 to 0.70 Moderate correlation, 0.30 to 0.50 Low Correlation, 0.00 to -0.30 No correlation (Jaadi, 2019)

Table 3 shows the results of the Spearman Rho Correlation of the ordinal variables that the probability value was less than the level of significance ( $p < 0.01$ ). Thus, the null hypothesis was rejected. It signifies that physical activity domains and the teaching effectiveness have positive low correlation (Correlation=0.304,  $p=0.002$ ). However, even if the direction and level of correlation between the independent and dependent variables are both positive, this implies that there is, at the very least, a relationship between physical activity and teaching quality. It has been discovered that physical activity and quality of teaching are directly proportional. In other words, as the importance of physical activity increases, so does the need of high-quality teaching. Simply said, any form of physical activity a teacher participates in has a positive impact on both the mind and the body of an individual. These results are congruent with Bogaert et al. (2014) that fostering physical activity in an autonomy-supportive manner may

be a beneficial method for improving teachers' health. Giving teachers the knowledge, understanding, awareness, and motivation they need to live a physically active lifestyle may be helpful to their health. Similarly, Meyer (2016) mentioned that when educators are well, they are efficient, and students do better. Though, the association between teaching effectiveness and student academic achievement was shown to be weak in the study of Lee (2018), the results show that teachers are not the only determinant in student academic improvement.

## 5. Conclusion

This study found physical activity domains and the teaching effectiveness had a low positive correlation. This implies there is a substantial association between different areas of physical activity and the efficiency with which one teaches, as physical activity is simply one aspect of the job of a teacher. While the effectiveness of a teacher can be attributed to a number of factors such as the instructional tactics they use, the quality of their lesson plans, the quality of their classroom management, and the amount of time they devote to the learning of their students, the presence of physical exercise affects the task performance. This study suggest that physical activity induces teachers to perform their functions with energy and clear mind.

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