

# Correlation Study on the Training Motivation, Parental Involvement, and Comprehension on the Physical Literacy with the Participation in Sport Extracurricular Activity of Students from Muhammadiyah Karangkajen Elementary School Yogyakarta, Indonesia

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**Abstract**—This research aims to identify the correlation of independent variables of training motivation, parental involvement, and physical literacy towards the dependent variable of the participation in sports extracurricular activity of students from SD Muhammadiyah Karangkajen (Muhammadiyah Karangkajen Elementary School), Yogyakarta. The research population consisted of 596 students from the third, fourth, and fifth grade at Muhammadiyah Karangkajen Elementary School Yogyakarta with a sample of 67 students selected by using the Proportionate Stratified Random Sampling technique. Training motivation was defined as internal and external drives that encouraged individuals to participate in physical activities. Parental involvement included the active role of parents at home and school, which might affect the student's academic achievement and participation in extracurricular activities. Physical literacy included comprehension and appreciation of lifelong physical activity. The data analysis technique used multiple regression test. The results showed a significant correlation between training motivation and parental involvement with the participation in sports extracurricular activity. However, there is no any significant correlation found between physical literacy and participation in sports extracurricular activity. Together, the three variables affect the participation in sports extracurricular activity at 79.6%. This study confirms the importance of training motivation and parental involvement in increasing student's participation in sports activities, while physical literacy needs to be studied further to understand its insignificant effect in this context. The findings can be used to design effective programs to increase student's involvement in physical activity through parental support and increasing physical literacy.

**Keywords**— Parental involvement, physical literacy, sports extracurricular activity, training motivation.

## I. INTRODUCTION

The physical and cognitive development of primary school children in general has been a concern in recent years. This is due to digital devices and online spaces that have become a fundamental aspect of the current generation. Rapid advances in technology allow easy access to screens. Excessive screen time has both positive and negative consequences. Positive

impacts of screen time include children being able to use the internet as a learning resource.

The negative impacts of children's internet screen time include children being vulnerable to pornography, violence, and harmful stuff that is unacceptable for their age. Even with restrictions on access to harmful materials, it is still possible for children to accidentally encounter them. Another negative impact that is equally troubling to parents is that children can become addicted to the internet and mobile devices, which can disrupt their schedules and affect their performance in school, physical health, and their ability to communicate with others in real life. Excessive screen time not only affects mental health but also leads to a decline in physical health. Increased screen time and dependence on digital devices have adverse effects on physical and mental health, including increased stress, anxiety, depressive symptoms, and sleep problems[1]. Furthermore [2], conveyed that excessive use of digital media by children and adolescents can hinder the formation of psychophysiological resilience. Important components for psychophysiological resilience include a focused mind, good social attachment, and good physical health.

Reduced physical activity among children as a result of the emergence of digital technology and lifestyle changes can damage the growth of their motor skills. It is important that motor skills are instilled early in life. The presence of high motor skills in children will greatly affect their level of physical fitness and health. And in turn, participation in sports-related activities in childhood is an indicator of strong physical activity in adulthood [3].

Extracurricular sports programs and parental involvement feature prominently in this context as potential factors that can positively impact children's development. Learners who regularly participate in extracurricular sports activities can contribute to improved physical fitness. Extracurricular sports activities can also increase empathy in students and help reduce harmful behavior patterns. Therefore, children's educational institutions should implement planned movement

programs (extracurricular activities) as a strategy to promote motor skill development in children [4]. Extracurricular sports programs have a statistically significant effect on children's motor skills. The group of children who participated in extracurricular sports activities will experience an increase in motor skills. Whereas the group of children who did not participate in extracurricular sports activities did not show significant improvement in motor skills [5], [6], [7].

Children's desire to maintain their fitness with sports activities cannot be separated from their physical literacy. Physical literacy is the understanding and knowledge of physical activity, movement and motor skills. Children in primary school are motivated to exercise because they have a strong desire for physical activity and sport. Physical literacy and children's desire to exercise have a strong relationship that can be very important. Physical literacy should be developed in primary school learners to increase their desire to exercise. Children can develop strong incentives to exercise frequently with the help of comprehensive exercise instruction, support from family and school, and the creation of a friendly atmosphere for physical activity. Physical literacy affects a child's physical prowess therefore, schools or sports clubs should introduce physical literacy as their program content and objectives to develop physically literate individuals [8], [9].

Based on the above, we know that participation in extracurricular sports activities plays an important role in the physical, mental and social development of primary school children. However, as technology advances and children use digital gadgets more frequently, there are several obstacles to overcome to ensure children remain physically active. Children's physical and mental health, including increased stress, anxiety and sleep problems are negative examples of increased screen time and dependence on digital gadgets. Therefore, it is crucial to understand the variables that influence children's engagement in extracurricular sports. Based on this description, this correlational study wanted to determine the relationship between motivation to exercise, parental involvement, and understanding of physical literacy on involvement in extracurricular sports of students at Muhammadiyah Karangkajen Elementary School Yogyakarta. It is hoped that the findings of this study can provide useful advice for parents and teachers on how to encourage and improve children's extracurricular sports involvement.

## II. RESEARCH METHODS

The method used in this research is correlation, which analyzes whether or not there is a relationship between two or more variables, as well as the level of correlation and which variables are involved. Only the presence or absence of a relationship between the variables studied is explained by correlational research, questions of cause and effect are not included in the scope of this study.

The population of this study were students in grades III, IV, and V at Muhammadiyah Karangkajen Elementary School Yogyakarta with a total of 596 students. The students who participated in extracurricular sports were 238 students or around 39.9% of the total population.

The samples in this study were students of grades III, grades IV and grades V at Muhammadiyah Karangkajen Elementary School Yogyakarta. The sampling technique used is Proportionate Stratified Random Sampling. The number of samples to be taken using the provisions, namely if the research will analyze with multivariate (correlation or multiple regression), then the number of sample members is at least 10 times the number of variables studied. For example, there are 5 research variables (independent + dependent), then the minimum number of sample members =  $10 \times 5 = 50$  [10].

## III. RESULT AND DISCUSSION

### A. Correlation of Exercise Motivation with Extracurricular Sports Participation

The results of the correlation test with the t test show that there is a positive and significant correlation between exercise motivation and extracurricular sports participation of students in grades III, IV and V of Muhammadiyah Karangkajen Elementary School Yogyakarta. This is evidenced by the value of t count (5.606) > t table (1.688) and a significance value < 0.05 and an effective contribution value of 53.3%. Based on the results of descriptive analysis, it shows that the majority of students' exercise motivation at Muhammadiyah Karangkajen Elementary School Yogyakarta is in the "high" category, namely 55% or there are 37 students. The motivation to exercise of students at Muhammadiyah Karangkajen Elementary School Yogyakarta includes the following factors: desire and desire, drive and need, hope and aspiration, appreciation and conducive environment. Understanding these characteristics can be used to approach effective learning design and support optimal learner development.

This is important because motivational factors play a critical role in promoting physical fitness, psychological well-being and overall health outcomes in individuals of all ages. By comprehensively understanding motivational factors, interventions can be tailored to increase children's motivation for physical education and leisure-time physical activity, ultimately leading to increased physical activity levels. Motivation is a key determinant of sustained engagement in physical activity, which is critical for preventing chronic health problems such as cardio-vascular disease, obesity, and type II diabetes [11]. When associated with the results of this study which state that there is a positive and significant correlation between motivation to exercise and extracurricular sports participation, this is in accordance with the results of research from Pavlovic and friends. The results of his research state that physical activity motivation (in this study exercising) significantly affects the physical activity of elementary school children in physical education classes/extracurricular sports activities [12]. Fostering a motivational atmosphere for exercise is essential to encourage physical activity among school-age learners. This will impact on the development of self-regulation and willingness to engage voluntarily in exercise activities. Thus, issues such as boredom, inability, and negative peer judgment, which can inhibit learners' participation, can be minimized. In line with Pavlovic another research also stated that intrinsic motivation is positively correlated with physical performance [13]. Intrinsic

motivation is when a child participates in exercise because they enjoy the activity and feel good without any external pressure such as rewards or punishments. So that the awareness in children to exercise is more dominant in influencing their activity in extracurricular sports activities. Children realize the importance of exercise for self-satisfaction and also for the sustainability of their health. Self-satisfaction, for example, children participate in sports to socialize with peers so that boredom will be avoided from the daily routine, which in turn will have an impact on a sense of joy.

Motivation affects sports performance, driving passion and determination to bring out the best in ourselves. With motivation, we are better able to overcome obstacles such as lack of time, energy or confidence, and are more likely to persevere despite challenges. Therefore, this sport motivation factor contributed the most (53.3%) to extracurricular sport participation.

#### *B. Correlation of Parental Involvement with Extra-curricular Sports Participation*

The results of the correlation test with the t test show that there is a positive and significant correlation between parental involvement and extracurricular sports participation of students in grades III, IV and V of Muhammadiyah Karangkajen Elementary School Yogyakarta. This is evidenced by the t value (2.776) > t table (1.668) and a significance value <0.05 and an effective contribution of 13.9%.

Based on the results of descriptive analysis, it shows that the involvement of parents of students at Muhammadiyah Karangkajen Elementary School Yogyakarta is mostly in the "high" category, namely 51% or a total of 34 students. The "high" category of parental involvement in students at Muhammadiyah Karangkajen Elementary School Yogyakarta shows that parents' concern for students needs to be maintained or even increased either at home or at school. Parental involvement consists of two main bases, namely at home and at school [14]. The main activities of parental involvement at home include: discussions about school-related matters with children at home, supervising and helping with homework, and supervising children's learning activities. Whereas school-based parental involvement refers to parents' practices in their children's schools, such as their attendance in parent- teacher conferences, volunteering in school activities, and so on. Parental involvement in this study includes caregiving, volunteering, communication and learning at school. So in this study, based on the above opinion, it includes both school-based parental involvement and home-based parental involvement. Parental involvement in children's education is considered a very important component in their educational and cognitive development. Research has shown that parental involvement can have a positive impact on children's academic achievement and learning outcomes. Learners whose parents are frequently involved in their school activities achieve greater school performance than those with less parental school involvement [15].

Parental support and encouragement play an important role

in influencing the total amount of children's extracurricular involvement in various activities[16]. When children feel supported by their parents, they are more likely to engage in more activities. Parents should encourage their children's participation in extracurricular activities while giving them autonomy in choosing activities and levels of involvement, as this balance can lead to increased enjoyment and motivation to participate. Overall, parental support and encouragement are important factors that can increase children's overall engagement in extracurricular activities and contribute to a positive participation experience.

Extracurricular programs and parental involvement have a simultaneous and significant influence. Parental involvement will foster discipline in children so that in children will grow a sense of responsibility. This form of responsibility and discipline, for example, children will be involved in activities outside the regular academic curriculum, fostering a sense of responsibility and discipline through participation in structured and organized events. The nature of extracurricular programs encourages learners to actively engage in various tasks and challenges, promoting a sense of accountability and commitment that contributes to their overall discipline. Parental support is crucial in reinforcing the values and lessons learned through extracurricular activities. When parents are actively involved in their children's school life, they can provide additional guidance and encouragement, further strengthening the impact of extracurricular programs on learner discipline. Therefore, there is a positive correlation between parental involvement and extracurricular activities, working together to comprehensively shape and improve learner discipline.

#### *C. Correlation of Physical Literacy with Extracurricular Sports Participation*

The results of the correlation test with the t test show that there is no correlation between physical literacy and extracurricular sports participation of students in grades III, IV and V of Muhammadiyah Karangkajen Elementary School Yogyakarta. This is evidenced by the value of t count (1.235) < t table (1.668) and a significance value > 0.05 and an effective contribution of 12.4%.

Physical literacy includes the development of basic movement skills, physical fitness, and cognitive understanding related to movement. Physically literate individuals are not only physically competent but also have the motivation and confidence to engage in a variety of physical activities throughout their lives. This includes participating in sporting activities proficiently, efficiently and effectively. Physical literacy provides individuals with the necessary skills and knowledge to engage in various physical activities, including sports. By promoting physical literacy among individuals, they are better equipped to participate in sporting activities with confidence and competence, leading to a more active and healthy lifestyle. In the context of the physical education curriculum, integrating physical literacy principles can enhance learners' ability to engage in sport activities by developing movement skills, understanding of sport concepts and overall physical fitness. Physical Education teachers play



an important role in fostering physical literacy among learners, which in turn can have a positive impact on their participation and performance in sports activities. Therefore, there is a strong correlation between physical literacy and sporting activity, with physical literacy serving as the foundation for individuals to engage in sport effectively and enjoyably, contributing to their overall well-being and lifelong physical activity engagement.

The concept of physical literacy emphasizes the importance of developing a range of movement skills, confidence and knowledge to sustain physical activity throughout life. Having physical literacy is important, these skills must be meaningful in a specific context, such as sport or physical activity, to facilitate actual sport participation [17]. Simply learning the basics of movement and physical literacy does not guarantee engagement in sport, as social influences and personal circumstances play an important role in determining sport participation.

From the results of this study which states that there is no significant correlation between physical literacy and extracurricular sports participation, when associated with the opinion [17], it is very harmonious. A high level of physical literacy will not guarantee that a child will be involved in sports. There are other factors that will influence, such as social influences and personal circumstances. It could be that a child has a high level of physical literacy, but due to social factors, for example, the cost of paying for each extracurricular sports activity they want to participate in is quite large, so the desire to participate in these extracurricular activities is undone. Or it could also be because the distance between where the child lives and where the extracurricular activities are carried out is quite far, which becomes an obstacle to participating in extracurricular activities.

In accordance with the descriptive analysis previously presented, the physical literacy of students at Muhammadiyah Karangkajen Elementary School Yogyakarta is in the "Very High" category, namely 51% or as many as 34 students. Although physical literacy is in the "very high" category, physical literacy individually has no correlation with extracurricular sports participation. When viewed from its effective contribution, this physical literacy variable is the lowest compared to other variables, which is only 12.4%. From this result, it can be said that physical literacy is only limited as an understanding and has not been applied in daily life that can help our health. Children understand the importance of physical activity for health and they can also perform basic motor movements as a reference in physical literacy, but they are reluctant to do regular physical activity. Nowadays, there are many distractions, especially gadgets that are in their hands at all times. This factor could be one of the reluctance of children to engage in extracurricular sports participation. According to [18], in the field to date there has been little conceptual attention on positioning physical literacy as a determinant of health. Thus, there is a need for discussions or learning models that are able to foster physical literacy as a determinant of health. Thus, high physical literacy will be accompanied by physical activity as a foundation for health.

#### *D. Correlation of Exercise Motivation, Parental Involvement, and Physical Literacy together with Extracurricular Sports Participation*

The results of correlation testing with multiple analysis (Linear Regression) show that there is a significant correlation between motivation to exercise, parental involvement, and physical literacy together with extracurricular sports participation of grade III, IV, and V students at Muhammadiyah Karangkajen Elementary School Yogyakarta. This is evidenced by a significance value of 0.000 (0.000 < 0.05). The determination value of extracurricular sports participation is 78.6%, which means that exercise motivation, parental involvement, and physical literacy together affect extracurricular sports participation by 79.6% and the remaining 20.4% is influenced by other factors.

Sport participation plays an important role in the overall development of learners. Understanding the factors that influence extracurricular sports participation is crucial to creating a supportive and motivating environment for learners. This study attempts to analyze the relationship of sport motivation, parental involvement, and physical literacy on learners' involvement in extracurricular sport activities. The aim of analyzing these factors is to shed light on the importance of creating a positive and supportive atmosphere that fosters a love of physical activity and sport among learners.

The relationship between exercise motivation, parental involvement, physical literacy, and extracurricular sports participation in this study is significant and able to explain with a strong category. According to [19], if the coefficient of determination ( $R^2$ ) is more than 0.67, the model is categorized as strong. Active and positive parental involvement can increase children's exercise motivation and physical literacy, which in turn can encourage their participation in extracurricular sports. Consistent participation in extracurricular sports can strengthen exercise motivation and physical literacy, creating a positive cycle that supports the physical, mental and social development of children and adolescents.

These three interrelated variables impact children's participation in extracurricular sports. Creating a conducive sport environment and encouraging parental involvement can increase motivation to play sport. Conversely, physical literacy offers the fundamental skills and understanding needed for children to feel capable and inspired to engage in sport. Children who have strong physical literacy skills and a sense of support from their parents are more likely to actively participate in extracurricular sports.

All things considered, fostering an interest in sport, involving parents in the process, and encouraging the development of physical literacy early on are critical to increasing children's participation in extracurricular sports. Together, these three components provide an atmosphere that encourages and enables children to participate in sports.

#### IV. CONCLUSION

Based on the findings, a series of recommendations may be proposed to augment students' engagement in

extracurricular sports activities. Educational institutions ought to concentrate on cultivating exercise motivation by formulating programs that underscore the enjoyment and personal advantages associated with sports. Activities must be captivating, inclusive, and customized to the interests of students to ensure sustained participation over the long term. Furthermore, reinforcing parental involvement is imperative, as parents serve a vital function in inspiring and supporting their children. Schools may facilitate parental engagement through consistent communication, volunteer opportunities, and participation in school events. The organization of workshops or seminars for parents may also aid them in comprehending the importance of their role in their children's physical and personal development.

Moreover, the practical implementation of physical literacy ought to be prioritized. Although students may exhibit a high level of physical literacy, it is essential to provide significant opportunities to apply these skills. Educational institutions should address obstacles such as financial and logistical limitations by offering accessible or subsidized extracurricular programs. Emphasizing enjoyable and practical activities can foster regular engagement. Lastly, the establishment of a supportive environment within schools and the broader community is crucial. This encompasses the enhancement of facilities, the elimination of barriers to participation, and the promotion of awareness regarding the benefits of physical activity for health and holistic development. By executing these strategies, schools can effectively enhance students' motivation, engagement, and overall participation in extracurricular sports, thereby contributing to their physical, mental, and social well-being. conclusion section is not required. Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extensions.

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