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Comparison of Physical Activity Levels by Sex in Public Elementary Schools and Private Elementary Schools

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ABSTRACT

In the development process of primary school students, physical activity plays a vital role in supporting this development. Several factors, including school type and student gender, can cause differences in physical activity levels. This study sought to review how physical activity levels are based on school type and how physical activity levels differ between male and female students in public and private primary schools. This study was conducted in Purwakarta Regency, Wanayasa District, and took a population of 3 public and three private elementary schools, with a sample of 60 people. This type of research is descriptive quantitative and uses the Physical Activity Questionnaire for Older Children (PAQ-C) research instrument. From the results of the study, it is known that public primary schools have better physical activity levels compared to private primary schools. Male and female students in public primary schools have better physical activity levels than private primary school students.

Introduction

Physical activity is significant in children's development; the World Health Organization (WHO) recommends that children and adolescents aged 5-17 do at least 60 minutes of daily physical activity (RAHMAWATI, n.d.). However, from the results of a study conducted by the Centers for Disease Control and Prevention (CDC) in 2018, only 21.7% of elementary school students got the amount of physical activity recommended by the American Heart Association. Similarly, in the Asian region, the Sun Life-supported Active Healthy Kids Global Alliance 2022 report, the report highlights the lack of physical activity and many sedentary behaviours among children and adolescents in Asia, increasing the risk of cardiovascular disease, type 2 diabetes, obesity, mental health disorders, as well as various other adverse health conditions. According to the Active Healthy Kids Global Alliance 2022 report, in terms of physical activity, Hong Kong and Malaysia scored D, while Indonesia, the Philippines, and Vietnam scored F. These results indicate that less than 20% of children aged 6 to 17 years achieve an average of moderate

to intense physical activity for at least 60 minutes daily. So, the level of physical activity in elementary school students is a problem that needs serious attention so that it does not cause even more significant gaps (Kriswandaru, 2018).

In Indonesia, gaps in students' levels of physical activity can occur based on school type, where private school students often have more access to resources and structured physical education programs than their peers in public schools (Tribby et al., 2020, p. 5). In a study conducted by (Shabbir et al., 2014), private schools provide superior physical facilities compared to public schools; this happens because private schools mainly depend on financial resources obtained from school fees paid by students or parents, while public schools obtain funding from the government and are often constrained by government education budgets. More resources in finance and policy can affect the availability and quality of sports facilities in schools (Thapa et al., 2019).

In addition to differences caused by school type, gender can cause physical activity gaps (The Lancet Public Health, 2019, p. 360). In society, especially in Indonesia, there is a stereotype that boys are more physically active than girls (Nur. 2020, p. 47). The research of Tribby et al. supports the sentence (2020, p. 4), which states that these stereotypes often translate into fundamental differences in the implementation of physical activity given to students at school, with boys encouraged to participate in sports and outdoor activities, while girls are often directed towards more sedentary activities. Several studies have indicated differences in physical activity patterns between male and female students in some countries. For example, a study by (Telford et al., 2016) found that men engage in high-intensity physical activity more often than women, who tend to do light-intensity physical activity. Still, his research stated that women were more active, fitter, and had less body fat than participants with low physical activity. This sex-based bias in physical activity at a young age can have long-term consequences for an individual's health and well-being (Granero-Jiménez et al., 2022).

In several previous studies, it is known that there are differences in physical activity between male and female students (Istiqomah, 2022), (Kurnianingsi, 2022), (Prasetyo & Hidayat, n.d.), (Supriyatna et al., 2019), (Telford et al., 2016). However, there have not been many studies exploring differences in physical activity based on sex in public and private elementary school students, such as research conducted by Makhmudin & Wahjuni (2017, p. 54), which found that there was no difference in physical fitness levels between students in private schools and students in public schools. Still, the weakness of the study was that it did not compare sex and physical activity between Male and female students in public and private schools. Some studies focus on differences in physical activity by school type without delving into the gender aspect. In contrast, others focus on gender but do not compare between public and private schools. This encourages researchers to conduct research by comparing physical activity between public and private schools by exploring aspects of gender.

Research Methods

The type of research used is descriptive quantitative. The method used in this study is survey research because this method allows researchers to collect data from several respondents in a relatively short time. The data analysis technique used in this study was categorising five categories according to Azwar (2012) and cross-tabulation to compare physical activity levels between public and private elementary school students. The population in this study is public and private elementary school students in Purwakarta Regency, Wanayasa District, consisting of 21 public elementary schools and three private elementary schools. Then, to get a balanced comparison, researchers took three public and three private elementary schools, with the number of participants in each school namely ten students consisting of 5 boys and five girls. The data in this study was obtained through the offline distribution of questionnaires; the research instrument used in this study was The Physical Activity Questionnaire for Older Children (PAQ-C).

Results and Discussion

Table 1
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Skor	60	18	47	31.30	6.057
Valid N (listwise)	60				

The results of descriptive statistical calculations show that the maximum value obtained is 47, with a minimum value of 18, then a mean value of 31.30, and a std value—a deviation of 6,057. After conducting descriptive statistical analysis, the next step is to divide the categories into five categories by following the calculations (Widiyatmoko & Hadi, 2018); these categories include very low, low, medium, high, and very high. The following are the results of the categorisation calculations obtained in this study:

Table 2
Categorisation Calculation

Information	Value	Decision / Category
Mean	31	-
Std. Deviation	6	-
Mean – (1.5 * Std. Deviation)	22	< 22 / Very Low
Mean – (0.5 * Std. Deviation)	28	23-28 / Low
Mean + (0.5 * Std. Deviation)	34	29-34 / Medium
Mean + (1.5 * Std. Deviation)	40	35-40 / High
X > (Mean + (1.5 * Std. Deviation))	> 40	> 40 / Highly Tall

After getting the calculation of the categories to be used, the next step is to perform data analysis using cross-tabulation, with the following results:

Physical Activity Comparison of Primary School Students by School Type

Table 3
Cross-tabulation by school type

Information		Activity Level					Total
		Very Low	Low	Keep	Tall	Very High	
Types of Schools	Negeri	0	5	11	9	5	30
	Private	4	9	15	2	0	30

From the results of cross-tabulation, it can be seen that public school students have a higher level of physical activity compared to private school students; this condition can be seen in the very high category owned by only five public school students, while private school students are not in the very high category. Then, in the high category, public school students numbered as many as nine people, while private school students only numbered two. However, in the medium, low, and shallow categories, it is dominated by private schools. To get a clearer picture, it can be seen in the following picture:

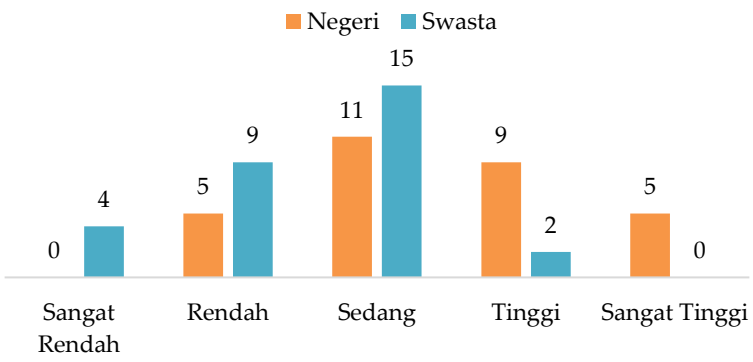

Figure 1
Physical activity comparison chart by school type

Figure 1 shows that public school students have a higher level of physical activity than private school students; public school students have a physical activity level in the low-very-high category, while private school students have a physical activity level in the very low-high category and do not get a very high category. From these conditions, it can be interpreted that public elementary school students have a better activity level than private elementary school students.

Comparison of physical activity of primary school students by gender

In this section, a comparative review of physical activity by sex will be conducted in public and private elementary school students. The following are the results obtained in this study:

Physical Activity Comparison of Male Students in Public and Private Primary Schools

Table 4
Cross Tabulation of Male Public and Private Primary Schools

Information		Activity Level					Total
		Very Low	Low	Keep	Tall	Very High	
Types of Schools	State Men	0	1	4	5	5	15
	Go to a Ford	0	6	7	2	0	15

The cross-tabulation results show that male students in public schools have a higher level of physical activity than male students in private schools. Five male students from public schools occupy the very high category, while male students from private schools do not occupy the very high category. Almost the same thing happened in the high category; male students from public elementary schools met the category of as many as five people, while male students from private elementary schools only numbered as many as two people. In the medium category, male students from private elementary schools fill this category the most, with 7 people, while male students from public elementary schools only number 4. While in the low category, male students from private schools dominate with six people, and male students from private schools only number 1 person. Then, in the deficient category, no male students from public and private elementary schools occupy this category. To provide a clearer picture of these conditions, the researchers made the following graph:

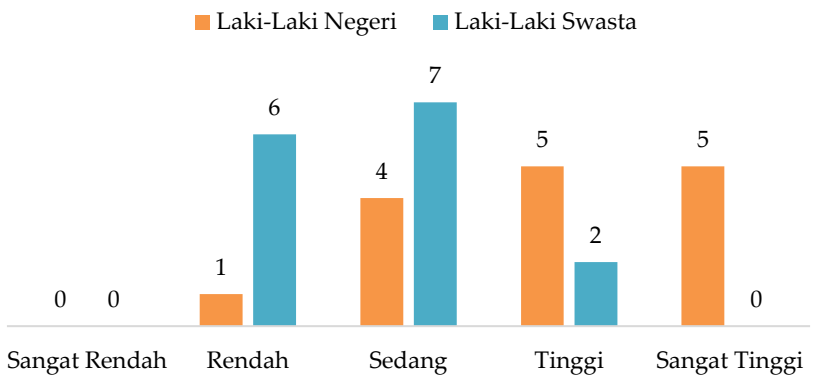

Figure 2
Comparison Chart of Physical Activity of Male Students in Public and Private Elementary Schools

Figure 2 shows that male students in public schools have a higher level of physical activity than male students in private schools. Thus, these conditions suggest that male public elementary school students have a better physical activity level than male students from private elementary schools.

Physical Activity Comparison of Female Students in Public and Private Primary Schools

Table 5
Cross-tabulation of Public and Private Primary School Women

Information		Physical Activity Level					Total
		Very Low	Low	Keep	Tall	Very High	
Types of Schools	Women of the Country	0	4	7	4	0	15
	Private Women	4	3	8	0	0	15

The results of cross-tabulations between female students of public and private elementary schools show that female students of public elementary schools have a higher activity level than female students from private elementary schools. To provide a clearer picture of these conditions, the researchers made the following graph:

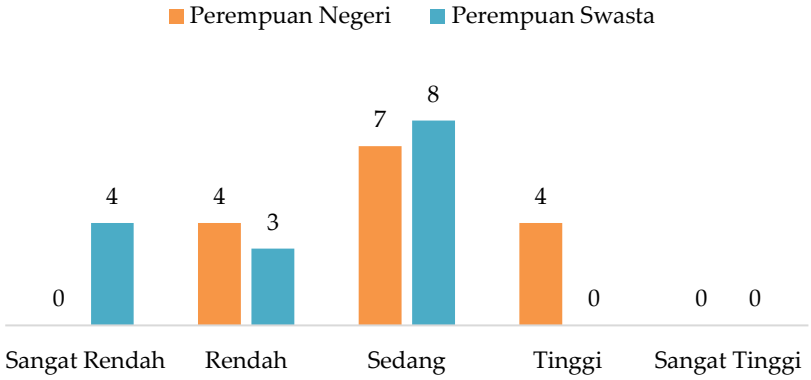

Figure 3. Comparison Chart of Physical Activity of Female Students in Public and Private Elementary Schools

From Figure 3, it can be seen that female students in public schools have a higher level of physical activity compared to female students in private schools. This condition can be seen from the number of female students in the high category with four people. At the same time, no female students from public elementary schools occupy the deficient category. The opposite condition occurs in students from private elementary schools; in the high category, there are no female students from private elementary schools who occupy the category, while in the deficient category, there are as many as four people who occupy the category. From this condition, it can be interpreted that female students from public elementary schools have a better level of physical activity when compared to female students from private elementary schools.

Physical Activity of Primary School Students by School Type

The study results show that public elementary school students have a better level of physical activity than private elementary school students. This study's results align with research conducted by Mahaur Badiger (2018), which states that public elementary school

students show higher physical activity levels than private elementary school students. However, research by Makhmudin Wahjuni (2017) states that there is no difference in physical activity between public and private elementary school students. The condition in this study occurred because the private elementary school that was the subject of the study was Madrasah Ibtidaiyah; in Madrasah Ibtidaiyah, physical education and health learning were obstacles such as the lack of teacher competence to conduct physical education learning, which could potentially affect the quality of physical education provided and failed in motivating students to do physical activity both in school scope and outside school. This sentence is supported by research conducted by (Husnan et al., 2023), which states that the sports activity of students in Madrasah Ibtidaiah does not meet the specified qualifications.

Physical Activity Levels of Male Students in Public and Private Primary Schools

The study results show that male students in public elementary schools have a better level of physical activity than male students in private elementary schools. This condition can occur because, in public elementary schools in Purwakarta Regency, the facilities available to support the physical activity of male students are more adequate than in private schools. The results of the evaluation of the PAQ-C instrument show that male students of public elementary schools during recess prefer to play with their peers, compared to male students in private schools who prefer to sit and talk. This condition can also be influenced by the increasingly widespread use of gadgets, as stated by (Wiguna et al., 2020), which state that the ease of daily activities can make a person move from one place to another less often.

Physical Activity Level of Female Students in Public and Private Primary Schools

The study results show that female students in public elementary schools have a better level of physical activity than female students in private elementary schools. The evaluation of the PAQ-C instrument shows that female students at school prefer to talk with friends and rest, but female students are more active after school. The opposite is true for students in private elementary schools; many students tend to be more active during school than after school. However, considering that the time after school is more extended than when at school, this can cause this condition to occur. However, despite female students' better physical activity levels in public schools than in private schools, the absence of female students occupying very high physical activity categories must be a concern. According to (Anjani et al., 2023), to increase the desire of female students to carry out physical activities can be done by focusing learning that takes place on students to become more active, then providing precise and detailed motion task instructions by accompanying students directly so that students can complete their movement tasks and enter the results of their activities on predetermined criteria.

Conclusions

From the findings of research conducted in this study, it can be concluded that the level of physical activity in public elementary school students is better than that of private

elementary school students. Then, the physical activity levels of male and female students in public elementary schools were better than male and female students in private elementary schools. However, the level of physical activity in female students in both public and private elementary schools still needs to be improved, considering the absence of female students who occupy very high physical activity categories in both public and private elementary schools.

Bibliography

Anjani, Mutia, Sugiawardana, Ruli, & Rezha, Mohamad. (2023). Efektivitas Model Pembelajaran Direct Instruction dengan Personalized System For Instruction Terhadap Jumlah Waktu Aktif Belajar Pendidikan Jasmani. *Jurnal Keolahragaan*, *8*(2), 137–146.

Granero-Jiménez, Jesús, López-Rodríguez, María Mar, Dobarrio-Sanz, Iria, & Cortés-Rodríguez, Alda Elena. (2022). Influence of physical exercise on the psychological well-being of young adults: a quantitative study. *International Journal of Environmental Research and Public Health*, *19*(7), 4282.

Husnan, Khoirul, Lani, Ahmad, & Sunuyeko, Nurcholis. (2023). Penguasaan literasi fisik, aktivitas fisik dan kebugaran fisik: Studi komparatif peserta didik Sekolah Dasar dan Madrasah Ibtidaiyah. *Sriwijaya Journal of Sport*, *3*(1), 39–50.

Istiqomah, Yunisa Rochmatul. (2022). *Perbedaan Asupan Serat, Aktivitas Fisik dan Pengetahuan Gizi pada Remaja Overweight dan Non Overweight Di Wilayah Kelurahan Sambiroto Kecamatan Tembalang Kota Semarang*. Skripsi. Fakultas Psikologi dan Kesehatan. UIN Walisongo Semarang.

Kriswandaru, P. (2018). *Gambaran Aktivitas Fisik Siswa Kelas IV Sekolah Dasar Negeri di Salatiga*. Program Studi Pendidikan Jasmani, Kesehatan dan Rekreasi FKIK-UKSW.

Kurnianingsih, I. Desak Ketut Dewi Satiawati, Batiari, Ni Made Padma, & Oktaviani, Ni Kadek Rika. (2022). Faktor yang Mempengaruhi Kebiasaan Makan dan Aktivitas Fisik Remaja selama Transisi Pandemi Covid-19 di Kota Denpasar. *Media Kesehatan Masyarakat Indonesia*, *21*(6), 424–432.

Prasetyo, Nugroho Hadi, & Hidayat, Taufiq. (n.d.). *PERBANDINGAN TINGKAT KEBUGARAN JASMANI SISWA KELAS XI JURUSAN IPA DAN KELAS XI JURUSAN IPS*.

RAHMAWATI, LILIK. (n.d.). *Hubungan antara pengetahuan gizi dan kebiasaan konsumsi jajanan tinggi energi dengan status gizi pada anak usia sekolah dasar di Kecamatan Kanor Kabupaten Bojonegoro*.

Shabbir, M., Wei, S., Fu, Y. G., Chong, R., Marwat, M. Altaf, Nabi, Ghulam, & Ahmed, Bilal. (2014). A comparative study of public versus private primary schools, evidence from Azad Kashmir (Pakistan et al.). *Journal of Education and Practice*, *5*(9), 154–168.

Supriyatna, Iik, Fitri, Mustika, & Jajat, Jajat. (2019). Aktivitas Fisik Remaja Laki-Laki Dan Perempuan Car Free Day Dago Kota Bandung. *JTIKOR (Jurnal Terapan Ilmu*

Keolahragaan), *3*(2), 32–36. https://doi.org/10.17509/jtikor.v3i2.10058

Telford, R. M., Telford, R. D., Cochrane, T., Cunningham, R. B., Olive, L. S., & Davey, Rachel. (2016). The influence of sport club participation on physical activity, fitness and body fat during childhood and adolescence: The LOOK Longitudinal Study. *Journal of Science and Medicine in Sport*, *19*(5), 400–406.

Thapa, Kiran, Bhandari, Parash Mani, Neupane, Dipika, Bhochhibhoya, Shristi, Rajbhandari-Thapa, Janani, & Pathak, Ramjee Prasad. (2019). Physical activity and its correlates among higher secondary school students in an urban district of Nepal. *BMC Public Health*, *19*, 1–14.

Widiyatmoko, Fajar, & Hadi, Husnul. (2018). Tingkat Aktivitas Fisik Siswa di Kota Semarang. *Journal Sport Area*, *3*(2), 140–147.

Wiguna, I. Nengah Sastra, Wahjoedi, Wahjoedi, & Spyanawati, Ni Luh Putu. (2020). Ketersediaan Sarana dan Prasarana Pendidikan Jasmani, Olahraga dan Kesehatan di SMP Se-Kecamatan Bangli. *Jurnal Pendidikan Jasmani, Olahraga Dan Kesehatan Undiksha*, *8*(3), 108–115.