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Differences in Motor Skills Between Male and Female Elementary School Children in Kampung Emas Krapyak IX Kapanewon Seyegan

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ABSTRACT: The study aims to determine the difference in motor skills between male and female elementary school children in Kampung Emas Krapyak IX Kapanewon Seyegan. This research is quantitative descriptive research. The population used in this study were male and female elementary school children in Kampung Emas Krapyak IX Kapanewon Seyegan, totaling 28 children with details of 16 boys and 12 girls, who were taken by total sampling technique, the instrument used was the Carpenter Motor Ability Test for Elementary Schools which included standing board jump (Limb Power), Shot Put (Arm Power), and body weight. Data analysis using a different test, namely the Independent T-test. The results of this study indicate that there is a significant difference in motor skills between male and female elementary school children in Kampung Emas Krapyak IX Kapanewon Seyegan, with the results of the motor skills test found that the Shapiro-Wilk test, showed a significance value of 0.107 for boys and 0.088 for girls, the significance level is more than 0.05 (>0.05), in the independent t test the value of Sig. (2 tailed) is <0.001 (less than / not more than 0.001) which means less than (0.05<0.05). So it can be concluded that there is a significant difference in motor skills between male and female elementary school children in Kampung Emas Krapyak IX Kapanewon Seyean.

KEYWORDS: motor skills, golden village, boys and girls

I. INTRODUCTION

Education is an asset that has a significant influence on a person's life and serves as the foundation for personal development. Education influences the formation of a healthy lifestyle through activities that enable a person to acquire knowledge, skills, and understanding that will be useful in everyday life. In addition, education also provides lessons on maintaining physical health through physical education.

Physical education is a process in education that uses activities or movements to help individuals in their daily lives. Physical education is described as activities that involve moving the body or physical activities and is an important part of the education system (Bambang, 2011). The objectives of physical education are to develop several areas of health, physical fitness, emotional stability, reasoning, and moral actions through physical sports activities. Therefore, physical education encompasses all activities performed by an individual through movements that involve the body. Thus, physical education is referred to as physical education that involves the body to achieve certain goals.

At the elementary school level, physical education is a compulsory subject for children. This is because at this age, children must be introduced to physical activities to support their abilities so that they do not become lazy. Considering that the purpose of elementary school itself is as the first level of education to then continue education to the next level, because the physical growth and development of children play an important role at this age (Syahruddin, 2021). Therefore, it is necessary to know that each age group has different characteristics in terms of physical needs, learning, and sports training. This is in line with the objectives of physical education, which are to improve children's physical, emotional, and social growth and development in line with the formation and development of basic motor skills, as well as instilling attitudes, values, and healthy living habits (Syahruddin, 2021). The motor skills that children acquire from an early age will later influence their ability to perform activities in their daily lives.

In physical education at elementary school, there is something very important to develop or teach children, namely motor skills. Motor development is the process of learning everything related to body movement. Motor development is related to the development of children's motor skills, so that children's motor development can be seen through the movements they make themselves. Factors that influence motor activity are factors possessed by each individual or child, namely social and

environmental factors. Therefore, children with good motor skills are those who can move well. The environment in which they live is an important factor in children's motor development. It is the activities in their environment that will enhance or develop children's motor skills. The more activities children have in their living environment, the more likely they are to have good motor skills.

Child development consists of personal social development, fine motor development, language development, and gross motor development. Gender is one of the factors that influence a child's motor development. Gender can influence a child's motor development; boys tend to be quicker at learning control skills, while girls tend to be better at mastering locomotor skills. Therefore, boys and girls cannot perform certain movement activities at the same level, because sons and daughters have their own strengths in motor skill development.

Motor skills are also influenced by other factors, namely environmental factors. Factors that cause delays in children's fine motor skills include nutritional factors, genetic factors, comorbidities, birth complications, premature birth, and the environment. Child growth and development are influenced by environmental and psychosocial factors. Children's motor development will be more optimal if the environment in which they grow and develop supports them to move freely. Therefore, the environment in which children live is an important factor in their motor development. Activities in their village or place of residence will have an influence on children's motor development, as it is their daily activities that will support or encourage motor development. This is why the author was interested in conducting research in a rural environment, specifically Kampung Emas.

Kampung Emas is a village developed by Yogyakarta State University (UNY). The purpose of this UNY-developed village is to help improve the quality of life of the community, especially in the fields of education, arts, sports, and economics. The activities of the residents in Kampung Emas are still heavily centered on farming, animal husbandry, and gardening. As a result, there is still a lot of land available to support community activities. Kampung Emas also provides facilities and infrastructure that the community can use to support activities aimed at achieving the objectives of Kampung Emas. The majority of the residents' livelihoods are gardening and animal husbandry, so their daily activities consist of cutting grass. The daily activities of the residents take place in rice fields, gardens, and areas with lush grass. It is the environment and habits of the residents of Kampung Emas that encourage the children of Kampung Emas to spend a lot of time playing outdoors. After school, boys spend more time playing and doing activities outside or at home, such as in the rice fields or fishing for fish. Meanwhile, girls are more often active and play indoors, where there is less physical activity. They prefer to play in the reading park, playing with Lego and congklak, and reading.

Based on the results of observations made by researchers during their community service program, it was found that the motor skills of children in Kampung Krapyak IX Kapanewon Seyegan were not yet optimal. Children still had difficulty performing complex movements, such as running, jumping, throwing, catching, and so on, especially girls. Children easily feel tired when performing these movements because they are rarely given the opportunity to perform them in their daily lives, resulting in suboptimal motor skills. Another problem faced is that children lack enthusiasm and are reluctant to actively participate in sports. It was observed that children have a low level of willingness to move and lack enthusiasm for activities that involve physical activity or body movement.

Seeing the facts on the ground, the author was interested in researching elementary school children in Kampung Emas. The author wanted to find out the differences in motor skills between boys and girls in Kampung Emas. The measurements could be used as a report for the author to conduct research on elementary school children, because at that age, children enter their most optimal stage of development. The study was compiled by the author with the title “Differences in Motor Skills Between Boys and Girls in Elementary School in Kampung Emas Krapyak IX Kapanewon Seyegan”.

II. RESEARCH METHOD

This research, entitled “Differences in Motor Skills Between Boys and Girls in Elementary School in Kampung Emas Krapyak IX, Seyegan District,” is a quantitative study. According to the study, data was collected using the Carpenter Motor Ability Test (Dr. Albertus Fenanlampir, 2015). This research was conducted in Kampung Emas Krapyak IX, Kapanewon Seyegan, Sleman Regency, Special Region of Yogyakarta. The research was conducted on April 18-19, 2024. The subjects of this study were elementary school boys and girls in Kampung Emas Krapyak IX, Kapanewon Seyegan, consisting of 16 boys and 12 girls. The research subjects were selected based on the problems encountered by the children of Kampung Emas, namely the unknown motor skills of the children in Kampung Emas. This research also supports the Olahraga Berkah program in Kampung Emas, Krapyak IX, Kapanewon Seyegan.

Research variables need to be defined so that they can be understood. In this case, the variable is the difference in motor skills between boys and girls. Differences in motor skills include the motor skills of boys and the motor skills of girls. For this reason, the researcher used the Carpenter Motor Ability Test to measure the motor skills of elementary school children in Kampung Emas.

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Research instruments are tools used to assess observed natural and social phenomena (Sugiono, 2019). Many motor skill tests exist for various reasons and purposes for different age groups, and contain different test items (Dr. Albertus Fenanlampir, 2015). The General Motor Ability Test, theoretically, will provide an overview of general abilities, which include various factors found in various types of physical activities. There are two types of General Motor Ability Tests, namely the Carpenter Motor Ability Test (used to measure the general motor skills of elementary school students) and the Barrow Motor Ability Test (used to measure the general motor skills of male college students, male high school students, and male junior high school students) (Nurdiansyah et al., 2018). The Carpenter Motor Ability Test is a test conducted with the aim of measuring the general motor skills of elementary school children.

This study uses descriptive statistical analysis and Statistical Product and Service Solution (SPSS) to analyze the data. Descriptive statistics are statistics used to analyze data by describing or depicting the collected data as it is without intending to make conclusions that apply to the general public or generalizations (Azhari, 2022). Based on the scores obtained from the Carpenter Motor Ability Test, the data was sorted between the results obtained by boys and girls in order to determine the overall score. The overall score was determined using the following formula (Dr. Albertus Fenanlampir, 2015):

A. Boys: Overall score = Standing Board Jump result + 2.5 (Shot Put) + 0.5 (body weight)

B. Girls: Overall score = Standing Board Jump result + 1.5 (Shot Put) + 0.05 (body weight)

III. RESEARCH SETTING

The research was conducted in June 2025. This research was conducted in Kampung Emas Krapyak IX, Kapanewon Seyegan, Sleman Regency, Special Region of Yogyakarta. The research was conducted on April 18-19, 2024.

IV. RESEARCH SUBJECT

The subjects of this study were elementary school children, both boys and girls, in Kampung Emas Krapyak IX, Kapanewon Seyegan, consisting of 16 boys and 12 girls. The research subjects were selected based on the problems occurring among the children of Kampung Emas, namely the unknown motor skills of the children in Kampung Emas. This research also aims to support or enhance the Olahraga Berkah program in Kampung Emas, Krapyak IX, Kapanewon Seyegan.

V. TECHNIQUE DATA COLLECTION

Data was collected using test. The test used in this study was the Carpenter Motor Ability Test. The Carpenter Motor Ability Test consists of several items, namely: 1) standing board jump, 2) shot put, and 3) body weight. The Carpenter Motor Ability Test is a test conducted to measure the general motor skills of elementary school children.

VI. DATA ANALYSIS TECHNIQUE

This study uses descriptive statistical analysis and Statistical Product and Service Solution (SPSS) to analyze the data. Descriptive statistics are statistics used to analyze data by describing or depicting the data that has been collected as it is, without intending to make conclusions that apply to the general public or generalizations (Azhari, 2022). Based on the data scores obtained from the results of data collection on the Carpenter Motor Ability Test, the data was then sorted between the results obtained by boys and the results obtained by girls in order to determine the overall score. The method used to sort the data was to compare the scores obtained by boys and girls to determine the overall score. Based on the scores obtained from the data collection results on the Carpenter Motor Ability Test, the data was then sorted between the results obtained by boys and the results obtained by girls in order to determine the overall score. The method of determining the overall score was done using the following formula (Dr. Albertus Fenanlampir, 2015):

A. For boys or males

Overall score = Standing Board Jump result + 2.5 (Shot Put) + 0.5 (body weight)

B. For girls or women

Overall score = Standing Board Jump result + 1.5 (Shot Put) + 0.05 (body weight).

This study uses the Independent Sample T-test because it compares two variables that are not interrelated. To perform the Independent Sample T-test, the data must be normally distributed, which is tested using the Shapiro Wilk Normality Test, Lilliefors or Kolmogorov Smirnov and the data is tested using a homogeneity test to determine whether the data is homogeneous or not, but this homogeneity test is not an absolute requirement.

A. Normality Test

The Normality Test is a test conducted with the aim of assessing the distribution of data in a data group or variable, whether the data distribution is normal or not. The Normality Test is useful for determining whether the collected data is normally distributed or taken from a normal population (Faradiba, 2020). The decision criteria are as follows:

a. If the Sig value is > 0.05, the data is declared to be normally distributed.
b. If the Sig value is < 0.05, the data is declared to be not normally distributed.

B. Homogeneity Test

The homogeneity test differs from the normality test even though both are used as requirements in parametric tests. The difference is that while the normality test is required in all parametric tests, the homogeneity test is not always used. The homogeneity test is only used in parametric tests that test the differences between two groups or several groups with different subjects or data sources. Therefore, the homogeneity test is required as an assumption for the independent t-test and ANOVA test (Faradiba, 2020). Thus, the homogeneity test is said to be a non-absolute requirement; if the data is found to be nonhomogeneous or not the same, the hypothesis test can still be continued. The testing criteria are based on the significance value, as follows*:*

a. If the Sig. value in the Test of Homogeneity of Variance output is < 0.05, then the data group variances are not equal.
b. If the Sig. value in the Test of Homogeneity of Variance output is > 0.05, then the data group variances are equal.

C. Independent Sample T-Test

This test is used to test differences in motor skill variables based on gender variables. The Independent Samples T Test or two-sample t-test is used to test two means from two independent data groups. The purpose of the Independent Sample T-Test is to be able to compare the means of two unrelated groups (Iii & Research, 2018). Hypothesis testing conducted with Independent Sample T-test analysis in the SPSS program, decision making can be seen from the significant level p (Sig (2 tailed)). If p > 0.05 then H0 is accepted and if p < 0.05 then H0 is rejected.

VII. RESULTS AND DISCUSSION

The results of this study are the overall motor skills tests between boys and girls in elementary school in Kampung Emas Krapyak IX Kapanewon Seyegan using the Carpenter Motor Ability Test, which includes the Standing Board Jump, Shot Put, and body weight. The scores obtained are as follows:

Data	***Mean***	**SD**	***Varian***
Boys	620,3125	173,04748	29945,429
Girls	222,5833	65,66507	4311,902

Based on the analysis of the data above, the results of the Carpenter Motor Ability Test can be determined. Based on the table above, it can be seen that the test results for boys have a mean of 620.3125, a standard deviation of 173.04748, and a variance of 29945.429. Meanwhile, the test results for girls have a mean of 222.5833, a standard deviation of 65.66507, and a variance of 4311.902. From the test results table, it can be seen that there are differences in the mean, standard deviation, and variance between boys and girls. Based on the above results, it can be concluded that boys have better motor skills than girls.

A. Normality Test

After the previous process revealed descriptive data on boys and girls, a normality test will be conducted. This normality test will use the Shapiro Wilk test with a significance level of 0.05.

Data	**Sig.**	**Description**
Boys	0,107	**Normal**
Girls	0,088	**Normal**

Based on the results of calculations using the Shapiro-Wilk normality test on the table above, it shows that there is significance in the data scores for boys and girls. For boys, the value is 0.107 and for girls, it is 0.088. Thus, it can be concluded that the data is a normally distributed sample because the significance level is greater than 0.05 (>0.05).

B. Homogeneity Test

The main requirements in an independent sample T-test are normally distributed and homogeneous data (not absolute) (Saran, 2019). This means that even if the data variance is not the same or not homogeneous, the Independent Sample T-test can still be used to analyze research data, but the decision-making process will refer to the results of equal variance not assumed. In testing the homogeneity of two variances between boys and girls, the Levene test will be used using the SPSS program. This is presented in the table below:

Children's Group	Sig.	Description
Boys	0,008	**Not Homogeneous**
Girls		

Based on the results of calculations using the data homogeneity test with the Lavene test in the table above, it shows that the significance value is 0.008. Therefore, it can be concluded that the data is not homogeneous, because the significance value of 0.008 < 0.05. As explained above, homogeneity is not an absolute requirement of the Independent Sample t Test, so the research can still be continued, but decisions must be based on the results of equal variance not assumed.

C. Independent Sample T-test

The Independent Sample T-test was used in this study to answer the research question, "Is there a difference in motor skills between boys and girls in Kampung Emas Krapyak IX Kapanewon Seyegan?" To answer this question, the independent sample t-test was conducted on data from boys and girls in Kampung Emas Krapyak IX Kapanewon Seyegan.

Data	Sig.	Description
Boys	<0,001	**Significant**
Girls		

From the output display above in the Equal Variances Not Assumed section, it can be seen that the Sig. (2 tailed) value is <0.001 (less than/not more than 0.001), which means it is less than 0.05 (< 0.05). Therefore, it can be concluded that there is a significant difference in motor skills between boys and girls in Kampung Emas Krapyak IX Kapanewon Seyegan.

D. Coefficient of Determination Test

This coefficient of determination test was conducted to measure the model's ability to explain how the independent variables collectively (simultaneously) influence the dependent variable, as indicated by the Adjusted R-Square value (Sugiono, 2019).

Independent Variable	Percentage of Variable Influence (boys and girls)	Percentage of Influence of Other Variables Outside the Study
Boys	67,4 %	32,6 %
Girls		

The Adjusted R-Square value obtained was 0.674 (67.4%). This means that the independent variables (sons and daughters) in this study influence the dependent variable (motor skills) by 67.4%, while the remaining 32.6% is explained or influenced by variables other than the independent variables in the study. Thus, it can be concluded that gender greatly influences children's motor skills.

The people of Kampung Emas live in a rural community far from urban lifestyles and civilization. Most residents work as farmers and own agricultural land to cultivate. Children here often play and explore the forests and rice fields with their parents. These external factors influence children's motor skills. Moreover, boys are more active than girls, coupled with the sociocultural factors of the village community that sees boys as the hope for the future, teaching children to go to the fields and forests is a form of learning for children. Biologically, boys do have more strength than girls.

This study confirms that there are differences in motor skills between boys and girls in elementary school in Kampung Emas Krapyak IX Kapanewon Seyegan, based on systematic research using the Carpenter Motor Ability Test, with significant differences

between boys and girls, with boys having far superior motor skills to girls. Several factors influence these significant differences, including the environment, gender, and the children themselves in relation to their daily activities.

VIII. CONCLUSIONS

From the results of the study, it was concluded that there were significant differences in motor skills between boys and girls in elementary school in Kampung Emas Krapyak IX Kapanewon Seyegan, with boys having far superior motor skills to girls. Several factors influence these significant differences, including the environment, gender, and the children themselves in relation to their daily activities.

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