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The Basic Influence of Movement Skills through the Media of Snakes on Improving Gross Motorcycle

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ABSTRACT

This research aims to test the influence of the Snakes and Ladders media with the Fundamental Movement Skills test on improving students' gross motor skills. Based on the nature of this research, to try this, this research uses an instrument, namely using Trs Fundamental movement skills with a movement guide, namely using gross motor skills movements, to see how much influence it has on the child's gross motor skills.. The research design used is a pre-experimental group pretest–post–test design, which only processes data from the Pretest and post-test results. Data analysis in this study used SPSS version 21, which includes a normality test, descriptive test, and Wilcoxon test. The subjects in this research were 38 upper-class children at Sdn Permata Hijau Bandung for rational reasons. The research results show that the descriptive data produces a minimum pretest score of 19 and a posttest of, a maximum pretest score of 5, and a top posttest score of 70. The average or average pretest score is 45.39, and the average posttest score is 54.76; the standard deviation on the pretest was 11.645, and the posttest was 15.853. Meanwhile, in the normality test, the Sig value is <0.05, which means the Sig value is rejected or abnormal. The researcher applied the Wilcoxon Test to look for concrete results in this research, and the result was that the results for the negative ratings of 33 respondents did not decrease, either from the average rating (average) or the number of ratings (total).

Keywords: Motor competency, Fundamental Movement Skills, Snakes and Ladders

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INTRODUCTION

The increasing number of young people with low proficiency in children's fundamental movements emphasizes the need to gain more insight into this decline and look for elements that can change the situation (Mucedola, 2018). Especially considering that delays in the development of fundamental movements in children at an early age do not decrease with normative growth but can increase without appropriate intervention (Koolwijk et al., 2023). At a very active age, children sometimes feel adventurous and want to try anything and everything (Gustian et al., 2019). Also mastering taste makes a person understand the meaning of tolerance and mutual understanding (Rohmansyah et al., 2022). This physical education processes almost all body components, starting from cognitive, affective, and psychomotor. If you look at the basic concept of physical education, which processes physical activity, it further develops children's psychomotor skills, which will be synchronized with cognitive knowledge. (Johnson, 2016). Therefore, when parents provide a place for children's motor development, it is easy for children to develop both in academic and non-academic fields because motor skills are the basis of movement skills that need to be mastered (Abdan, 2022).

Motor skills and physical activity will strengthen over time. Motor competence is the basic skill of mastering movement on objects and developing other movement . Assessing the quality of movement processes (e.g., "process characteristics") involved in performing gross motor skills is an integral part of determining children's overall level of motor skill development (Xiao et al., 2019). The movement learning process is divided into three stages: the cognitive stage, where the child begins to try; the associative stage, the prevention phase, characterized by movement mastery; and the autonomous stage, where the child can carry out automatic movements. A study by Sullivan and McGrath (2003) showed that children with significant motor difficulties at age four were more likely to experience academic or behavioral problems and require additional support when they reached age eight. A retrospective longitudinal study by Cantell, Smyth, and Ahonen (2003) also investigated long-term outcomes in children with motor difficulties at age five. They found that at ages 17-18, those who later suffered from DCD (developmental coordination disorder) had the lowest Wechsler Adult Intelligence Scale scores, the shortest school careers, and the lowest self-perceptions of athletic and academic competence. In contrast, children who showed progress at age 15 had fewer difficulties. These two studies show that early intervention is critical for this group of children, more specifically for basic movement skills (Sanusi et al., 2020).

Basic skills are the gross motor skills that children acquire and develop as they get older, forming the basis for more advanced movements and specific motor patterns (Klingberg et al., 2018). These skills are basic skills that children need to learn before children learn more complex skills in adulthood, for example walking, jumping, running and moving objects. Findings Hardy, L.L., Reinten-Reynolds, T., Espinel, P., Zask, A., &; Okely, AD (2012) revealed that there was a decline in children's motor competency levels. This finding is of particular interest because children with high fundamental mobility abilities are associated with positive health-related outcomes (Koolwijk et al., 2023).

A learning concept that requires children to learn more things. The fact that physical education is obtained indicates that students should be better able to appreciate the physical activities that involve physical activity in their daily lives (Fatah et al., 2016). The existence of national content standards in each country considers that physical education is important with quality programs. Therefore, children who value high physical activity levels in physical education are more likely to have high self-confidence (Ardian et al., 2019). So many fundamental motion assessments are available with two main approaches used to assess them, process-oriented and product-oriented (Guo et al., 2020). Process-oriented assessment considers how a movement is carried out by providing material elaboration by observing arm and leg patterns to find out how a child runs 10m, while product-oriented assessment considers measurable results, for example, the time for a child to run 10m (Prajurit, 2018).

Many factors influence eligibility, including environmental factors, time, school, and upbringing (Klingberg et al., 2018). Sometimes, if in a new environment, children also have to be able to adapt to their environment because, from here, children can grow cognitively, affectively, and psychometrically. (Hilliard et al., 2018). If the child has entered the school phase, motor skills also influence the child's social activities, for example, in physical education or sports subjects; outdoor lessons will give the child freedom (Hwang et al., 2016). Sometimes, if in a new environment, children also have to be able to adapt to their environment because, from here, children can grow cognitively, affectively, and psychometrically (Hwang et al., 2016).

Issues regarding motor development are targeted to ensure clarity of the most effective interventions; interventions should be targeted according to predominantly

developmentally appropriate targets (Gustian et al., 2023). This movement is the basis of children's growth and development, which influences children (Lengkana, 2018). These movements include walking, running up-stairs, moving objects, jumping, kicking a ball, and so on, which underlie daily activities. (Nathan et al., 2023). Motor movements also have two parts, namely gross motor skills and fine motor skills, namely movements that use muscles such as walking and running (Dahlan et al., 2020). Fine motor skills require the use of small muscle groups necessary for writing, cutting and drawing (Sezici & Akkaya, 2020). Motivation from parents and teachers who teach is the main factor in order to run the system children's sensory and motor skills easily so that the stimuli contained in the body will be better able to understand body language (Lengkana et al., 2020).

Effective learning will create learning with a level of results that tends to be consistent (Chikih & Anggunadi, 2023). Physical education makes learning more effective to improve learning outcomes (Suhadi et al., 2023). Snakes and Ladders learning media is a game concept that develops human thought patterns that adapt to their characteristics, because from the basic concept of the game it creates a perception of its presence, if it has the opportunity, humans can run smoothly. (Yang et al., 2021). Snakes and ladders learning can improve student learning outcomes with different methods, because it has been proven effective for teaching and learning activities (Wati, 2021). Ongoing teaching and learning activities must also pay attention to the selection of media, methods and learning resources to support learning (Gani et al., 2020).

However, the type of intervention these children need is more difficult to determine (Bond, 2011). Therefore, sports teachers sometimes provide modifications to educational games and can provide teaching that makes children more sensitive to their own stimulation/friends (Miller & Kocurek, 2017). The snake and ladder pattern can be made into a simple and fun learning medium that can make children enthusiastic about playing (Festiawan et al., 2020). The difference between this research and previous research is that the previous research examined the motor development of children for DCD sufferers. In contrast, this research will discuss The Fundamental Influence of Movement Skills Through Snakes and Ladders on Gross Motor Improvement (Bullard, 2016). Therefore, this research will create an action that combines locomotor, non-locomotor, and manipulative movements to improve children's motor movements with a training pattern (FMS) with a snake and ladder approach (Gustian et al., 2019).

METHOD

This research consists of quantitative research with a pre-experimental research design. This type of method is a technique that explains the relationship between independent and dependent variables. The one-group pretest–posttest design is also a research technique, with an initial and final research test with increasing scores, making this research an influential study. The independent variable in this research is a test of fundamental motor skills using snakes and ladders as media, and the dependent variable in this research is motor improvement in children.

The population in this research is at Permata Hijau Elementary School because the population has a track record of achievements in the field of sports and is indeed an active school, and so are the students; therefore, taking the population can facilitate this research. The sample was upper-class students in grades 4, 5, and 6. The population in this research is at Permata Hijau Elementary School because the population has a track record of achievements in the sports field and is indeed an active school, and so are the students; therefore, taking the population can facilitate this research. The sample was upper-class students in grades 4, 5, and 6.

Taken from the criteria of gross motor skills and supported by the media concept of snakes and ladders. Data analysis used in this research uses several statistical calculations, namely describing research data, carrying out homogeneity tests, and the Wilcoxon test because the data obtained is abnormal (Nahid & Abrar, 2023). This research uses an overview of the philosophy that applies in everyday life, namely going up and down stairs due to one's actions, so that not all children can play to think, with the core of learning being research tests on fundamental movement skills (Gandasari, 2023). This will influence the improvement of children's gross motor skills by working the brain so that children can synchronize these two things. With the test pattern in the form of a snake, children feel very motivated to overcome the obstacles from all the posts that have been prepared, so if you look at the level of children's satisfaction with this test, it is very high, because they consider this all as a game that can develop their basic abilities. In this research, many results influence such as the child's intelligence level to be able to solve a problem, the child's focus on the tests given, and control over his body to be able to pass all the tests (Tadesse et al., 2023).

Because the test uses tools so that children feel that this test is a game, the teacher must present a cheerful and enjoyable atmosphere in the lesson so that the lesson is easily absorbed, as is the case with this research. This research combines gross motor skills tests with cognitive intelligence with questions selected just by looking at the textbook in class (Appiah Kusi & Abieraba, 2023). This game system uses the concept of a snake and ladder game, which tends to involve dice to run the game. In a child's original game box, if he rolls the dice with a number and places on the snake descent, the trip box will go down on the small number box, likewise with the ladder, if it coincides with the rise of the number box, it will also go up on the snake ladder box. This study also involves concepts like the original game, with the distinction being in the test and travel box.

So, previous researchers made about 6 questions whose content was very simple and these questions were attached to the dice (Gandasari, 2023). With a snake-like trajectory in the basic movement skills test as usual, the child carries out according to the test procedure and before the child continues to the test post the researcher will give him a dice which already contains questions which must be in Javanese to progress the steps of the journey, if the question is not answered then it will be dropped and followed by children who can answer questions. Sometimes on tests many can pass easily because, they do it calmly but, there is a rush so that some are silent at one of the test posts and there are some who don't even progress.

RESULTS

The research results will display data compiled to describe the research results in tables that have been calculated in SPSS version 21. Researchers will display data describing the pretest-posttest, normality test and Wilcoxon test.

Table 1. Description of Posttest Basic Movement Skills Test Pretest Results

Deskriptive statistic								
	N	Scope	Min	Max	Mean		Std. Deviations	Varians
	Stat.	Stat.	Stat.	Stat.	Stat.	Error Std.	Stat.	Stat.
pretest	38	40	19	59	45.39	1.889	11.645	135.597
postest	38	51	19	70	54.76	2.572	15.853	251.321

N valid (listwise)	38							

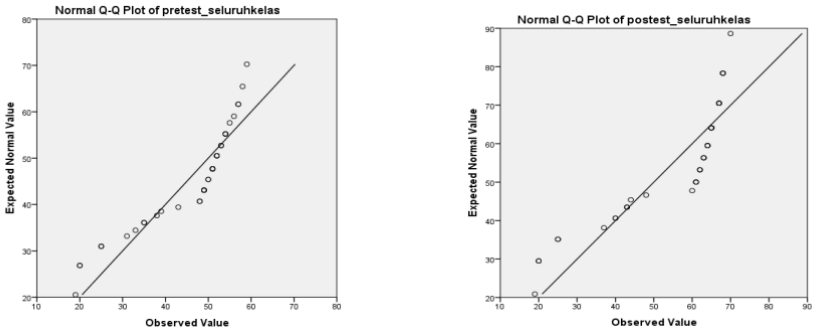

Figure 1. Q.Q Plot Components that Form Factors

Tabel 1. shows that the N value or number of samples is 38. The minimum pretest score is 19 and posttest is 19, the maximum pretest score is 59 and the maximum posttest score is 70. The average or average pretest score is 45.39 and the average posttest score is 54.76, the standard deviation value on the pretest was 11.645 and on the posttest was 15.853. The normality test is carried out to determine whether the data distribution is normal or not using Kolmogorov-Smirnov with the help of SPSS version 21. Data is said to have a normal distribution if the significant value is more than 0.05 or Sig. (2-tailed) > 0.05 and if less than 0.05 or Sig. (2-tailed) <0.05 then the distribution is not normal.

The results of the data that have been input with SPSS version 21 show that the N value or number of samples is 38. The minimum pretest value is 19 and posttest 19, the maximum pretest value is 59 and the maximum posttest value is 70. The average or average pretest value is 45.39 and the The posttest average is 54.76, the standard deviation value on the pretest is 11.645 and on the posttest is 15.853. The normality test results for the pretest and posttest of fundamental movement skills show that Sig. (2-tailed) shows Sig results. 0.00 so that the variable significance value is smaller than 0.05 or 0.00<0.05. So from these results it can be concluded that the data is distributed abnormally. The researcher continued with the next stage of calculation using the Wilcoxon test. The data shows that the results of the research, for the negative ratings of 33 respondents, did not experience a decrease, either in terms of average rating (average) or number of ratings (total).

For positive ratings, there was an increase in pretest to posttest seen from 33 respondents; the average rating was 17.00, and the number of ratings was 561.00. For ties with the same value, there were 5 respondents. Meanwhile, it can be seen in the statistical test table. It can be seen from the results that have been tested that the Wilcoxon test results have a value of Sig. 0.00, where the basis for decision-making is a Sig value of <accepted hypothesis 0.05. All results confirm that there is an influence on fundamental movement skills through snakes and ladders on improving children's gross motor skills. The test results showed a significant increase for each respondent.

This research focuses on improving children's gross motor skills by using a basic movement skills test with a snake pattern and using the concept of snakes and ladders. The average score obtained from these results shows increased and improved students' motor skills.. (Pratama et al., 2023). The impact of this is due to the fact that there are students

who are active and less active unevenly so that the mapping results are not normal, because the child's activity affects the child's own motor skills. (Gustian et al., 2023). It also affects balance and agility in children of different fitness levels (Wali et al., 2023).

The teaching style in each finding has a different momentum, with this fundamental test accompanied by the concept of snakes and ladders, it can make children make good decisions and answer several questions given in the learning dice; with their cognitive intelligence, children can synchronize psychomotor and cognitive processes in this teaching method. (Tariki et al., 2023). Effective learning will improve learning outcomes and the teaching methods implemented (Putri et al., 2022). If you look at the results, this test makes children very motivated and processes children's thinking patterns and ways of making decisions (Indraswari et al., 2022). Teachers must also create a new formulation for a learning activity, both in the media and in the teaching method (Triansyah & Haetami, 2020). Sometimes teachers also care for different children's emotions (Ardian et al., 2019), Not all media, the teaching methods that are prepared, will always be well received by children, sometimes they are rejected with facial expressions and reduced motivation to learn. (Kusuma et al., 2020). With research involving physical education teachers' teaching methods, it will become a guide for teachers to improve children's learning outcomes in the future, and become a long-term method (Cahyo Wibowo et al., 2023).

CONCLUSION

This research produces findings that benefit learning, especially in physical education subjects, because this research has a good impact on school children and teachers. This can be seen in the calculation results, which show that many children experience increased gross motor skills after treatment. The methods and concepts of this research influence the increase in children's gross motor skills. Using basic movement skills tests by providing different patterns and strategies in research makes the research results have a good impact on students, teachers, researchers, and the schools they study. Sometimes, a test only uses standard and formal components and is not accompanied by different concepts. This research will result in new findings that can become innovative teaching materials for the future.

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CONFLICT OF INTEREST

The authors declare no conflict to interest

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