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LOCOMOTOR-BASED LEARNING TO IMPROVE MOTOR SKILLS OF ELEMENTARY SCHOOL STUDENTS

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Abstract: This research aims to improve the motor skills of elementary school students through locomotor-based learning at SDN 3 Cadasari, Pandeglang Regency. This research is a classroom action research model of Kemmis and Taggart, which consists of 2 cycles. The research subjects were 32 students, consisting of 18 women and 14 men. Data collection uses the checklist observation method. The data analysis technique uses qualitative descriptive techniques. Improving motor skills is said to be successful if the percentage of students' motor skills reaches 70% (criteria for being able to perform locomotor movements). The research results prove that the locomotor-based learning model can improve the gross motor skills of grade 2 elementary school students at SDN Ciuyah 1, Cirebon Regency. This is proven by the increase in students' motor skills in cycle I for locomotor movements by 45%. In cycle II, locomotor movement increased by 85%. Based on the analysis above, cycle I and cycle II, it can be concluded that the locomotor learning model can improve the motor skills of grade 2 elementary school students.

Keywords: Learning Model, Locomotor, Motor

INTRODUCTION

Physical Education, Sports, and Health are media that encourage physical growth, psychological development, basic movement abilities, knowledge and reasoning, and appreciation of values (attitudes-mental-social-emotional-sportsmanship-spiritual), as well as the habit of healthy lifestyles, which lead to stimulating the growth and development of balanced physical and psychological qualities(Andriadi & Saputra, 2021). Physical education is an educational process that utilizes physical activity and produces holistic changes in individual physical, mental, and emotional quality Grace, 2014). Therefore, good and quality basic movement skills are needed to create the ability to carry out physical activities. Hard work and effort are needed to create creativity, innovation, and the application of methods, strategies, and models that suit students' needs.

The role of educators is very important in the child's development and learning process, written in National Education Ministerial Decree No. 58 of 2009, which means early childhood educators are professionals who are tasked with planning, implementing the learning process, as well as providing guidance, caregiving and protection for students.(Webiantoro, E., Wiradihardja, S., & Nuraini, 2020). This statement underlines the important role of educators in supporting children's development and learning, in line with the provisions contained in the Minister of National Education Regulation (Permendiknas) No. 58 of 2009. Early childhood educators have crucial tasks, including planning and implementing the learning process and implementing guidance, care, and protection of students. Early childhood educators are responsible for planning learning activities appropriate to the child's developmental stage. This includes the selection of teaching methods, learning materials, and the use of educational resources that are relevant to the characteristics of early childhood development. Involves organizing learning activities on the plans that have been prepared. Educators need to create a learning environment that is supportive, creative, and appropriate to children's needs. They must also facilitate positive interactions between children and the surrounding environment. Early childhood educators act as guides for children in their development process. This involves providing emotional, social, and cognitive guidance according to the child's needs. Educators can help children develop social skills, independence, and problem-solving. Apart from learning tasks, educators are also responsible for providing care to children. This includes attention to the child's physical, emotional, and social needs. Educators need to create a positive and supportive bond with each child. One of the primary responsibilities of early childhood educators is to maintain the safety and well-being of children. They must create a safe environment, identify and address potential risks, and collaborate with parents or guardians to ensure child protection.

Facts that occur in movement learning at the educational level for children aged 7-9 years in the implementation phase of the learning process, educators use the curriculum as a basis for implementing the learning process, but the concept of development of movement learning for children aged 7-9 years or in grade 2 of elementary school has not been implemented so that the learning provided so far has not been running properly. The lack of infrastructure is also one factor that prevents the physical learning education process from being optimally achieved.

One aspect that must be developed every day by elementary school children's educators after early childhood is physical-motor development, both fine and gross motor skills.(Jannah & Lestariningrum, 2018). Physical-motor development in elementary schools can be done through various models. One model that can be applied is a locomotor-based learning model. Through the locomotor learning model, children can practice sensory motor movements of the hands, feet, head, and body parts involving large and small muscles, thereby fully enabling them to develop their physical-motor abilities.(Tanti Tri Aristianti, Esty Faatinisa, 2022).

With the existence of a locomotor-based learning model, it is hoped that children will be able to improve gross motor movement abilities, such as jumping using one leg or two legs, and children will enjoy the game without realizing it at the end of the game and will have mastered certain skills. Apart from that, learning becomes fun, and children will be more enthusiastic and serious about their activities. Several locomotor-based learning models are based on learning principles: playing while learning and learning while playing.

The word motor comes from English, namely motor ability, which means the ability to move. Motorbikes are a very important activity for humans because by making movements, humans can achieve or realize their desired hopes (Arini & Fajarwati, 2020). Motors is also a translation of the word motor, which means the beginning of a movement(Fitrianti & Reza, 2016). Motor, also known as movement, according to Gallahue, is coordination between organs in the body through stimulation received by nerves, which are sent to the brain, and the brain orders the muscles to move.(Fitrianti & Reza, 2016).

According to Bambang Sujiono, children's motoric development is divided into two parts: gross and fine motoric. Gross motor skills are movement abilities that involve muscle activity in the hands, feet, and all parts of the child's body (Fadlilah, 2020), for example, jumping, climbing, running, walking, hopping on one leg, and so on. Gross motor skills include various movement abilities that involve muscle activity in the hands, feet and all parts of the child's body. It covers a child's ability to perform movements requiring coordination between different body parts. Examples include the ability to jump, climb, run, walk, hop on one leg, etc.

Jumping is a prominent form of gross motor skills. When a child learns to jump, they develop strength in the muscles of the lower legs and coordination between the legs and arms. This process involves the perception of space and distance, which are cognitive skills that develop over time. Children learn to control their balance through jumping, which is important for more complex gross motor abilities. Climbing is another form of gross motor skill that involves using the muscles of the hands and feet. Children often explore their surroundings, like climbing stairs, climbing slides, or crawling over different surfaces. This not only increases the strength of the muscles but also helps the development of coordination and balance skills. Running and walking are other aspects of gross motor skills that develop over time. As children learn to walk and run, they hone their balance skills, coordination, and lower body muscle strength. This is an important step in gross motor development and opens the door to more complex physical activities. Hopping on one leg is another example of gross motor ability that indicates an increasing motor skill level. This process requires better control over the body's muscles, especially those of the legs that are not off the ground. This is a significant step in a child's gross motor development.

Understanding children's gross motor development is important for parents, educators, and child health workers. Activities stimulating gross motor skills can help improve children's physical and cognitive abilities. Sufficient play and movement opportunities can positively contribute to a child's development. Movement is the movement of humans from one point to another. The osteoarticular system, bones, joints, and ligaments can move thanks to the locomotor system in the human body(Andriadi & Saputra, 2021). Examples of locomotor movements are walking, running, and jumping. Walking movement is a natural, vertical movement whose pattern is characterized by alternative and repetitive actions. And the feet always contact the ground for landing. The running movement is a natural extension of the walking movement. When running, humans shift their weight from one foot to the other, making the soles of their feet the focus of their footing. When running, the body will be pushed into the air and done repeatedly. Jumping is the movement of the human body hanging in the air for a fraction of a second. Strength, balance, and coordination are the most important factors in jumping(Fantiro et al., 2021).

The locomotor-based learning model applies several games, such as jumping, walking by pattern, and moving the ball(Amirzan, 2017). Jumping is a jumping game using a jumping carpet that depicts eight children's feet. How to play: children jump according to the direction of the soles of their feet on the jumping carpet. Walk by pattern is a zigzag walking game using a footbridge that has a zigzag pattern. How to play: Students walk by following a zigzag pattern, looking straight ahead, and with arms outstretched to the side to maintain body balance so as not to fall off the footbridge. Move the ball is a game of moving balls using colorful balls and baskets of three colors. How to play:

Students move all the balls in the basket by running, then throw the ball into the basket according to the color of the ball they took(Hamzah et al., 2022). Based on these studies, this research aims to produce a locomotor-based learning model to improve the motor skills of elementary school students.

METHODS

This research uses classroom action research with Kemmis and Mc. Taggart model. The model developed by Stephen Kemmis and Taggart still seems very close to Lewin's model, which includes 1) planning, 2) action, 3) observation, and 4) reflection (Siyoto & Sodik, 2015). However, after a cycle is completed, especially after reflection, this is followed by re-planning or revising the implementation of the previous cycle. Based on this, the re-planning is carried out in a separate cycle, and so on, so that PTK can be carried out in several cycles (Emzir, 2012). The research was carried out in two cycles. Cycle I was carried out three times; cycle II was carried out three times. In each cycle, there are four stages, namely: 1) Planning, 2) Implementation, 3) Observation, and 4) Reflection.

The subjects in this research were 2nd grade elementary school students aged 7-9 years, totaling 32 students consisting of 18 female and 14 male students.

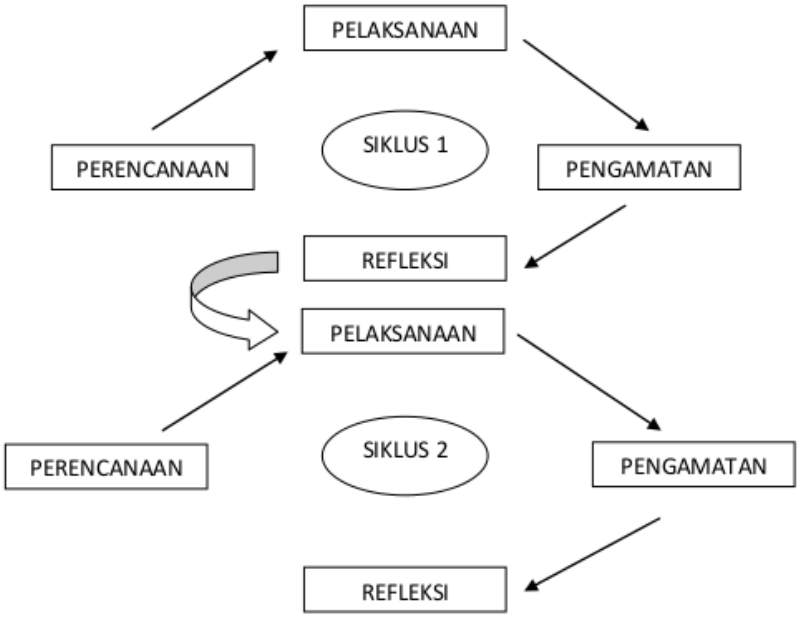

Figure 1. Classroom Action Research Cycle

The research operational definition is that motor skills are movement abilities that involve muscle activity in the hands, feet, and all parts of the student's body. The locomotor-based learning model is a learning model that consists of playing several posts, which is useful for increasing students' physical activity abilities. The learning model in this research is a learning model with gross

motor movements consisting of locomotor movements. This locomotor-based learning model involves jumping, walking, crawling, throwing a ball, maintaining body balance, and coordinating movements.

The instrument used in this research was an observation sheet. The observation sheet records developments made in the learning process(Makbul, 2021). Researchers use observation sheets to record the results of observations or observations carried out directly by researchers by marking a checklist (√) if what is observed appears or is by the instrument and with the description of the skills students are expected to achieve. Qualitative and quantitative descriptive data analysis techniques are used. Qualitative descriptive is data analysis by explaining and describing research results with words or sentences. In contrast, quantitative descriptive is an analysis of data obtained in numbers to determine the presentation of students' motor skills in locomotor-based learning.

Changes toward improvement mark the success of classroom action research. Indicators of success can be said to be successful if there is an increase in the percentage of development of students' motor skills in basic locomotor movements through a locomotor-based learning model for students aged 7-9 years at SDN 3 Cadasari, Pandeglang Regency. The presentation of the expected achievement of success is that 70% of the 32 students have gross motor skills with a physical education KKM score of 70. From these results, it can be concluded that a locomotor-based learning model can improve students' motor skills. This is in line with research conducted by Ayu Fajarwati, which states that children's abilities that can be improved are the ability to run, walk, and jump, including learning to walk the pattern, move the ball, and jump. This research provides a picture of children categorized as underdeveloped, meaning children who cannot make any movements at all in each motor movement indicator, so they still need to be trained intensively by teachers (Ayu Fajarwati, 2023).

RESULTS AND DISCUSSIONS

The initial observation results show that the motor skills of grade 2 elementary school students are still considered low. These data present the observations of the initial condition of the motor skills of Grade 2 Elementary School students. In the indicators of locomotor movements with the sub-indicators of jumping on two legs and jumping on one leg, only 10 out of 32 students could carry out these movements well and correctly. The rest of the students could not perform jumping movements correctly with two legs or one leg. There are still many students whose jumping movements are like stepping. Students tend to be lazy, unenthusiastic, and even uninterested in the motor activities presented by teachers in institutions. Researchers and teachers found problems used as material to determine planning for the next learning activity. The problems that researchers found were as

follows: (1) Most of the students' level of accuracy in jumping movements was not correct, (2) students lacked internal motivation. and externally, (3) students lacked confidence in their abilities.

Based on these problems, real action needs to be taken to improve students' motor skills so that students' abilities can be achieved. Researchers are trying to improve motor skills by implementing a locomotor-based learning model in grade 2 elementary school students. Below, the researcher presents data to show the results of classroom action research from cycle I to cycle II.

No	Achievement Indicators	Pre Cycle	Cycle I	Cycle II
1	Walk (walk the pattern)	60	65	79
2	Running (move the ball)	62	66	78
3	Jumping (jumping)	60	64	78

Based on the data above, it can be seen that in the pre-research cycle, on the jumping indicator, the average score of students who could jump was 60, which means they had not met the KKM for Physical Education subjects. Meanwhile, all 32 students have not met the KKM on the walking and running indicators.

In cycle 1, the indicator of students' walking achievement using walk-the-pattern learning received an average score of 65, which means they have not yet reached the KKM. Meanwhile, on the running indicator using move the ball learning, the average student score of 66 also means they have not yet reached the KKM. In the last indicator, namely jumping using the jumping learning model, the student's average score was 64, neither of which had yet reached the KKM. Of the three indicators, the average value shown in cycle I, not all have reached the KKM, namely 70. Therefore, cycle II needs to be implemented.

In cycle II, the data stated that the walking indicator for students using walk-the-pattern learning received an average score of 79 and had met the KKM. Meanwhile, on the running indicator, by applying move the ball learning, the average student score is 78 and has met the KKM. In the last indicator, namely jumping using the jumping learning model, the student's average score was also 78, which shows that they have reached the KKM.

Based on this, students have reached the KKM with an average score above 70 for each indicator, such as walking, running, and jumping. These results provide an initial picture of challenges or obstacles in implementing learning in the first cycle. These numbers indicate that some students may struggle to understand or execute the movements associated with these motor skills. With this understanding, teachers can identify aspects that need improvement and design appropriate improvement strategies. However, the learning cycle does not end in the first cycle. The second cycle is implemented in classroom action learning to overcome weaknesses and improve student learning

outcomes. Data analysis in the second cycle showed significant improvements in student achievement.

In the second cycle, the average score of students on the walking indicator using the walk-the-pattern learning method increased to 79, which shows that students have met or even exceeded the KKM. Likewise, in the running indicator, the average score of students using the move-the-ball learning method reached 78. Meanwhile, in the jumping indicator using the jumping learning method, the average score of students also reached 78. These results show that students reached the KKM on each evaluated motor skill indicator in the second cycle.

These significant improvements may be due to changes in learning strategies, adjustments to teaching methods, or implementing more effective approaches to helping students understand and master motor skills. Repeated learning cycles provide opportunities for teachers to respond flexibly to student needs and correct ineffective learning approaches, reinforced by the findings of Hendriana Sri Rejeki and Gunawan, who concluded that the learning model for basic locomotor jumping movements with simple games is effective in supporting the learning process: physical education, sports and health in grade 3 elementary schools.

DISCUSSION

The importance of motor skills in children's physical health cannot be ignored. Children can improve cardiovascular fitness, muscle endurance, and body coordination through physical activity. Developing basic motor skills, such as walking, running, and jumping, helps increase a child's ability to participate in physical activities, reduces the risk of obesity, and supports healthy bone and muscle growth. Motor skills also have an important role in children's social interactions. Play and physical activity teach Children to cooperate, share, and communicate. Locomotor-based activities, such as playing ball or group games, help build social skills, such as understanding rules, respecting classmates, and working in a team. Developing motor skills, children can feel more confident in social interactions and build positive peer relationships. Developing motor skills at an early age also contributes to children's independence. Recognizing and controlling their body movements allows children to be more independent in daily activities, such as dressing, eating, and cleaning themselves. These skills build the foundation for greater independence in the future.

Children with difficulty developing motor skills can sometimes experience frustration and a tendency to avoid physical activities. By strengthening their motor skills, we can help prevent these behavioral problems, giving children a positive outlet to express themselves and overcome challenges. Developing motor skills provides positive experiences and a sense of accomplishment for children. Successfully performing physical tasks, such as jumping over obstacles or passing a ball,

increases their self-confidence and happiness. These positive experiences create a foundation for further future learning and exploration.

Through classroom action research in cycle 1, the indicator of students' walking achievement using walk-the-pattern learning received an average score of 65, which means they have not yet reached the KKM. Meanwhile, on the running indicator using move the ball learning, the average student score of 66 also means they have not yet reached the KKM. In the last indicator, namely jumping using the jumping learning model, the student's average score was 64, neither of which had yet reached the KKM. Of the three indicators, the average value shown in cycle I, not all have reached the KKM, namely 70. Therefore, cycle II needs to be implemented.

In cycle II, the data stated that the walking indicator for students using walk-the-pattern learning received an average score of 79 and had met the KKM. Meanwhile, on the running indicator, by applying move the ball learning, the average student score is 78 and has met the KKM. In the last indicator, namely jumping using the jumping learning model, the student's average score was also 78, which shows that they have reached the KKM. In line with Ayu Fajarwati's research, children's abilities that can be improved are the ability to run, walk, and jump, including learning to walk the pattern, move the ball, and jump. The results of his research provide a picture of children who are categorized as underdeveloped, meaning children who cannot make any movements at all in each indicator of motor movement, so they still need to be trained intensively by teachers.(Fajarwati & Arini, 2023).

CONCLUSION

Based on the results of the final research in the implementation of cycle II, it is known that students' motor skills with indicators of jumping, walking, and running can be improved through a locomotor-based learning model. Students' abilities increase in each learning cycle, starting from the pre-, cycle I, and cycle II data. Students' motor skills increase and develop according to expectations. Students can show skills in every motor movement they make. Students can also improve every movement; the movements shown are automatic responses. This can be seen in the student's learning process in the jumping, walking the pattern, and moving the ball game activities.

These findings imply that the locomotor-based learning model improves students' motor movement abilities. Thus, this approach can be used as an alternative or choice in designing learning methods to maximize students' motor development. Increasing students' motor skills can also

positively impact other aspects of children's development, such as physical health, independence, and self-confidence.

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