Basic Motion Learning Model Locomotor Based On The Iv Elementary School Student Play Approach

Yan Sumitro Purba[1], Oman Unju Subandi[2], Samsudin[3],Sujarwo[4]
[1234]Magister Pendidikan Jasmani dan Olahraga, Universitas Negeri Jakarta

Abstract

This research exists or appears for education that is developing significantly. Especially in the field of physical education, this research offers learning based on the play approach to its application. The existing benefits certainly provide students with new experiences in the learning process of the basic motion of locomotor in schools. Where the renewable play approach becomes something interesting for students. Research and development used to use the Addie method, including analysis, design, develop, implementation, and evaluation. This study involved as many as 119 elementary school students in grade IV. According to the age of the play approach it was very suitable to be applied. Evidenced by the acquisition of each data analysis in the trial at each stage. The small trial got 80.6% while the large trial got 80.72%. In addition, the N Gain test received a percentage of 48.9%, where this result was a good data result for the model development category. From the effectiveness test this model can be applied by the teacher in grade IV elementary school students.

Keywords*: physical education, locomotor motion, walking, running, jumping*

INTRODUCTION

Background

High-quality education, including physical education, is a key prerequisite for realizing a developed, modern, prosperous, and prosperous nation, and is highly dependent on qualified teachers. Physical education (PJOK) plays a crucial role in developing students' physical and mental potential, teaching motor skills, health knowledge, and positive attitudes toward health. It is a learning process through physical activity aimed at improving physical fitness, motor skills, knowledge, healthy lifestyle behaviors, sportsmanship, and emotional intelligence.

Learning development and innovation are essential to achieving individual educational goals and improving the quality of physical education. Currently, physical education in Indonesia focuses on mental and social aspects in addition to physical ones, aiming to develop holistically healthy individuals. Basic movements, such as locomotor (walking, running, jumping), non-locomotor, and manipulative, are at the heart of physical education learning in elementary schools. Movement is essential for humans throughout life, not only for fitness but also for all aspects of life.

Children's creativity is unlikely to emerge if they are forced into activities they dislike or find unmotivating. Children's motor development, which involves sensory-motor, intellectual, and emotional-psychological functions, is crucial during elementary school. Motor activities also influence the development of attitudes, self-confidence, and the ability to cope with stress.

However, low physical activity has led to increased obesity among children in Indonesia, impacting their growth and development and psychosocial health. One cause is suboptimal and uninteresting basic locomotor movement instruction. Many students still lack or fail to perform basic locomotor movements correctly. Furthermore, the use of gadgets negatively impacts motor development, as basic locomotor movement instruction is less appealing. The lack of varied physical activities and opportunities for play in basic locomotor movement instruction is also a serious problem.

Therefore, a playful approach is an effective alternative for improving children's basic locomotor skills due to the fun movement tasks involved. Valid research shows that 3-20% of children's time and energy is spent playing, making play-based learning a positive innovation. Developing a play-based learning

model for basic locomotor skills is expected to be a solution, providing new, engaging experiences, increasing student participation, and addressing various learning challenges.

Research Focus

The focus of this research is a basic locomotor movement learning model based on a play approach for fourth grade elementary school students.

Problem Formulation

1. Is the basic locomotor movement learning model based on a play approach suitable for fourth grade elementary school students?
2. Is the basic locomotor movement learning model based on a play approach for fourth grade elementary school students effective in improving the basic locomotor movement skills of fourth grade elementary school students?

Research Objectives

1. To determine the feasibility of the basic locomotor movement learning model based on a play approach for fourth grade elementary school students.
2. To determine the effectiveness of the basic locomotor movement learning model based on a play approach in improving skills for fourth grade elementary school students.

And **State of the Art** Basic motor skills, including walking, running, and jumping, are the foundation of children's motor development and are crucial in elementary school. The Independent Curriculum (Kemendikbudristek, 2022) prioritizes basic movement education as a primary goal. However, research shows that basic movement instruction is often poorly implemented, uninteresting, and poorly integrated with students' needs. Some students perform poorly in basic locomotor movement practice, leading to a lack of motivation and participation in physical education (PJOK). The lack of variety in basic locomotor movement instruction provided by PJOK teachers also reduces student interest.

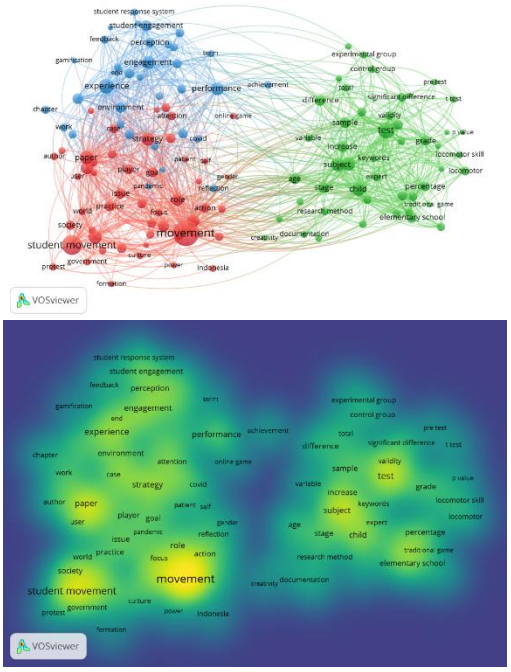


Figure 1.1 Bibliography analysis graph of basic locomotor movements

Based on bibliographic analysis, the learning model for basic locomotor movements of fourth grade elementary school students does not yet have a variety of play approaches. It was found that research *that* learning basic locomotor movements requires something new with the integration of a game approach that is adaptive to students' needs, as well as a collaborative and fun learning model.

THEORETICAL STUDY

A. Model Development Concept A model is a tangible representation or representation of a system, object, or process developed to understand, explain, predict, or optimize. In education, learning models are a crucial component because:
   - Support the teaching and learning process and the achievement of learning objectives.
   - Provide significant information for students.
   - Increase enthusiasm for learning, prevent boredom, and motivate students.
   - It is important to remember the differences in characteristics,

personalities, and learning habits of students.
- Allows teachers not to be tied to a particular model.
- It is a requirement for professional teachers to have motivation and a spirit of renewal.

Research and development (R&D) is a systematic effort to create new products or improve existing ones based on needs analysis and testing, to ensure effectiveness and usability. Learning models offer a conceptual framework for systematically explaining material. Research and development of learning models, particularly in physical education and health, aims to scientifically solve learning problems using the ADDIE research design.

The ADDIE (Analysis, Design, Development, Implementation, Evaluation) model is a systematic and flexible instructional framework. These stages include:

1. Analysis: Finding the factors causing differences in learning performance, determining instructions, and planning performance improvements based on empirical evidence.
2. Design: Ensuring proper learning intentions and testing techniques, building specific functions to close gaps, and establishing "guidelines" for subsequent stages.
3. Development: Creating and validating selected learning resources, as well as developing all necessary tools for implementation and assessment. Teachers are expected to create learning resources that include content, strategies, lesson plans, media, and comprehensive directions.
4. Implementation: Preparing the learning environment and engaging students, adapting the learning environment, and moving on to summative evaluation activities.
5. Evaluation: Assessing the quality of products and teaching processes before and after implementation, determining evaluation standards, selecting instruments, and carrying out evaluations.

B. Concept of the Developed Model

Educational models in Physical Education (PJOK) are used to determine student achievement and preferred learning structures, as well as to guide classroom learning. Teachers should consider the subject matter, students' cognitive developmental levels, and available resources when selecting a model. Enjoyable sports experiences are important to motivate students to exercise, and the developed model should enhance coach performance and create a fair and inclusive classroom environment. Learning models, such as the basic locomotor movement model, generate text, images, and sound, enabling students to think and engage directly. The learning model encompasses the overall learning method, how the lesson is delivered, and the learning environment experienced by students.

A learning model is a basic concept, program, or guideline for developing strategies designed by teachers to encourage active, effective, and enjoyable student participation. The steps for developing a learning model for basic locomotor movements for elementary school students use the ADDIE model because it emphasizes the quality of the process and product.

Researchers developed several concepts for basic locomotor movement learning models based on previous research, such as:

- Amirzan (2017): Development of a Basic Locomotor Movement Learning Model for Fifth Grade Elementary School Students. This concept includes multi-skills (running, walking, jumping, throwing, catching, rolling, maintaining balance) and curriculum adaptation with modified learning.
- Hernando Dwi Prasetyo (2021): Game-Based Basic Movement Learning Model for Children Aged 7-9 Years at Alchasannah Elementary School, West Jakarta. This study shows that learning developmental aspects often lack

integration of curriculum themes, as well as the need to change media and learning models, especially for locomotor movements that affect cognitive, emotional, language, moral, social, and imagination. The use of safe objects (plastic balls, mats) and fun games that are appropriate for training gross and fine motor skills are emphasized. This model involves walking, running, jumping, sliding, galloping, hopping, and passing objects.

C. Theoretical Framework

a. Learning Models Research on sports learning models has shown that these models can improve various student learning outcomes, including motor skills, cognitive abilities, and social behavior. Examples of relevant models are:

- Direct Instruction by Metzler (2017): The teacher leads the instruction, demonstrates the skill, and students imitate, suitable for basic skills.
- Cooperative Learning by Dyson and Casey (2017): Students work in small groups toward a common goal, encouraging social interaction and cooperation. Learning must be systematically and carefully designed, taking into account individual differences in children to shift their state from ignorance to knowledge, or from bad behavior to good behavior.

b. Learning Movement Learning movement is defined as a change in place, position, speed, or body part that can be objectively observed in the dimensions of space and time. Environmental factors, self, and movement accuracy influence the movement learning process. Movement is very important for children's motor development, forming basic movement patterns that determine more complex movement dexterity. Mastery of movement can only be achieved through learning and training, namely understanding movement patterns and repeating them.

Motor skills involve three stages according to Fits and Posner:

1. Cognitive Stage: Students understand the stages of new movements, consider them, and prepare for action. Teachers must help students understand the information provided.
2. Association Stage: Improved skills occur, comprehension issues are resolved, and the focus shifts to more efficient movement pattern organization ("refinement"). Students concentrate on increasing success and consistency, as well as learning to identify errors. In this stage, students begin to practice movements repeatedly, progressing from easy to difficult, reducing errors, discovering practice patterns, and increasing movement mastery.
3. Automation Stage: Movements become better, more perfect, and can be done automatically without being influenced, even being able to find new ways to improve skills.

c. Basic Locomotor Movements (Walking, Running, Jumping) Basic locomotor movements are movements that involve moving or shifting body parts using large muscles. Examples include walking, running, jumping, climbing, stepping, and rhythmic arm swinging. These movement skills are essential for daily activities and must be mastered by children. The development of locomotor skills is usually determined by maturity levels.

Examples of locomotor motion:

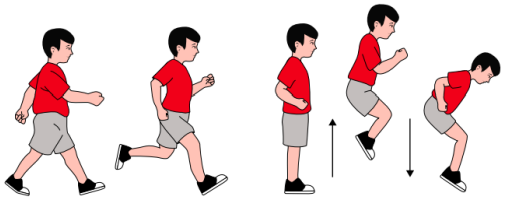


Figure 2.3 Basic Locomotive Movements: Walking, Running, and Jumping (Mesnan, Panjaitan, and Supriadi 2020).

• Walking: A natural, vertical movement with alternating and repetitive action patterns, with the feet always in contact with the ground for landing. The stages include a starting position of standing upright, looking forward, feet together, arms at the sides, and then alternating steps.

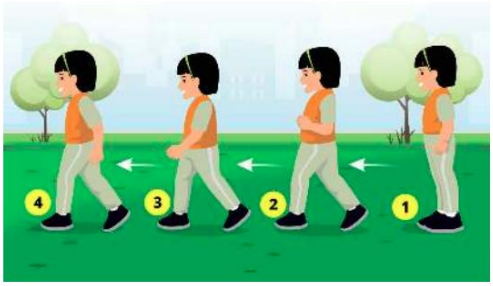


Figure 2.4 Stages of Basic Walking Movements (Muhajir and Raushanfikri 2022)

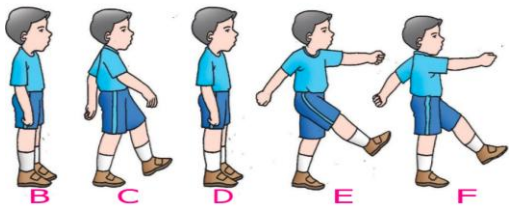


Figure 2.5 Walking Stages (Hikam 2022)

• Running: A natural extension of walking, shifting weight from one foot to the other using the soles of the feet as support. The body is repeatedly pushed into the air. Running affects students' mental and physical health, reducing anxiety and stress hormones. The stages involve a leisurely jog, alternating arm swings, looking forward, with alternating footwork.

Figure 2.6 Basic Running Movement Stages (Muhajir and Raushanfikri 2022)

1. Jumping: A movement where the body hangs in the air for a moment. Strength, balance, and coordination are key factors. It's important to develop basic jumping skills between the ages of 6 and 8.

Figure 2.7 Basic Movement Stages of Jumping on Two Feet (Muhajir and Raushanfikri 2022)

2. The stages of jumping on two legs include standing in a squat, leaning on the tips of the feet, swinging the arms backwards, pushing off and jumping forward, landing with both feet spread apart.
3. Variations of jumping one foot two feet and one foot one foot are also explained.

Figure 2.8 Basic Movement Stages of Jumping on One Leg with Two Legs (Muhajir and Raushanfikri 2022)

Figure 2.9 Basic Movement Stages of One-Leg Jumping with One-Leg Support (Muhajir and Raushanfikri 2022)

d. Learning Concepts Learning and instruction emphasize the active role of teachers and students in communication. Teachers need to have appropriate learning strategies so that students acquire knowledge and are active. Common learning theories include behaviorism, cognitive, constructivism, and humanism, which help create effective and efficient learning activities. Learning is defined as the effort to create learning activities that enable students to gain adequate experience, with data remembered and stored in cognitive coordination and memory, then applied in response to events. The STAD cooperative learning model is one method that encourages students to motivate and help each other, in accordance with human nature which is dependent on others.

   This research refers to the Learning Objectives Flow (ATP) in Phase B of the Independent Curriculum, where students are expected to practice walking, running, and jumping through simple games. The developed model concept will be applied to the core activities of the lesson plan (RPP) to improve and innovate physical education (PJOK) learning over time.

e. Physical Education and Sports PJOK covers movement skills such as locomotor and non-locomotor to improve basic abilities such as walking, running, jumping, and throwing. PJOK aims to teach physical skills, critical thinking, social skills, reasoning, emotional stability, moral actions, healthy lifestyles, and awareness of a clean environment. PJOK pays attention to psychomotor, cognitive, and affective aspects. The goal of PJOK is to improve physical skills, critical thinking, social skills, reasoning, emotional stability, moral actions, and healthy lifestyles. Exercise is important for maintaining fitness and health.

Physical Education (PJOK) is a learning process through physical activities designed to improve physical fitness, develop motor skills, knowledge, healthy and active lifestyles, sportsmanship, and emotional intelligence. PJOK helps students reduce stress and socialize. The PJOK learning environment is designed to enhance the physical, psychomotor, cognitive, and affective growth of each student, as well as to develop disciplined and sporty individuals. PJOK teachers must be healthy and active to participate in every lesson.

Characteristics of Physical Education in Elementary Schools:

1. Based on the nation's noble values to form a Pancasila Student Profile.
2. Form physically literate individuals.
3. The process of education about and through physical activities to improve the holistic quality of individuals.
4. Developing general values and skills (creativity, critical reasoning, collaboration, communication) through physical activities.
5. Consider the characteristics of students, movement tasks, and environmental support with the principal developmentally *appropriate practices (DAP)*. Phase B (grades III and IV) includes the development of basic locomotor, non-locomotor, and manipulative movement patterns.

f. The Concept of the Play Approach Play is the most important activity for children, having the same value as work and learning for adults. Play helps children develop their potential, understand the world, and find solutions to problems. Play is a fun, joyful, and enjoyable activity that serves to support the complete development of physical, intellectual, social, moral, and emotional development. Children build self-knowledge through exploration and experimentation with the world around them while playing.

Play theories from various disciplines include:

- Sigmund Freud and Erik Erikson's Psychoanalytic Theory: Play as a way to release emotions and gain self-esteem through body mastery and social skills.
- Piaget's Theory of Cognitive Development: Cognitive and behavioral patterns are closely related to the stages of a child's development; play influences intellectual development.
- Vygotsky's Theory: Cognitive development is influenced by social relationships, with knowledge primarily acquired through social life. These theories are essential for supporting children's language, cognitive, emotional, social, and motor development. The types of play approaches applied to learning basic locomotor movements are:
- *Physical Game* (physical play): Using physical activities such as walking, running, jumping, is important for gross motor development.
- *Games with Rule* (games with rules): Very suitable for the learning process at school because students need to work according to instructions and obey the rules, involving the affective side indirectly.

g. Characteristics of Fourth Grade Elementary School Students Student characteristics differ at each level of education, especially elementary school, and influence learning planning. Fourth grade elementary school students (aged 9-10 years) are still in the basic motor development stage. They have difficulty distinguishing between good and bad, and are still in the process of developing towards mental maturity (remembering, reasoning, memorizing, problem-solving). Cognitive development affects other aspects such as language, mental well-being, and emotional development.

It's important for teachers to understand student characteristics for effective learning. Elementary school children (ages 6-12) experience significant mental and physical changes, developing more complex thinking skills and social influence. In small elementary school classes, children develop self-confidence but also low self-esteem, striving to project "adulthood" or "I can do it myself." In larger elementary school classes, children's concentration improves, they can spend more time on selected tasks, and they begin to pay attention to fair play. They also begin to evaluate themselves through social comparison.

Elementary school-aged children are very active and love to imitate. They enjoy things that stimulate their imagination. The world of play is where children learn. A fun and comfortable learning environment will make learning more conditioned and effective. Understanding student characteristics significantly impacts the learning process, especially for basic locomotor movements, which impact daily activities into adulthood. Learning experts such as Reigeluth, Banathy, Romiszowski, Dick and Carey, Gagne and Degeng emphasize analyzing student characteristics as the most influential variable in developing learning strategies.

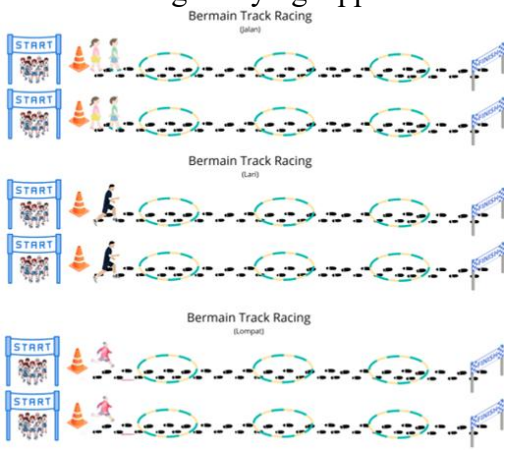
D. Model Design The learning design will include an introduction and understanding of basic locomotor movements, describing basic techniques (body position, arm movements, leg movements), and showing videos or demonstrations. It is hoped that students will understand the basic concepts of locomotor movements and be able to practice them confidently through an interactive and fun approach.

The following is a design for a basic locomotor movement learning model based on a play approach:

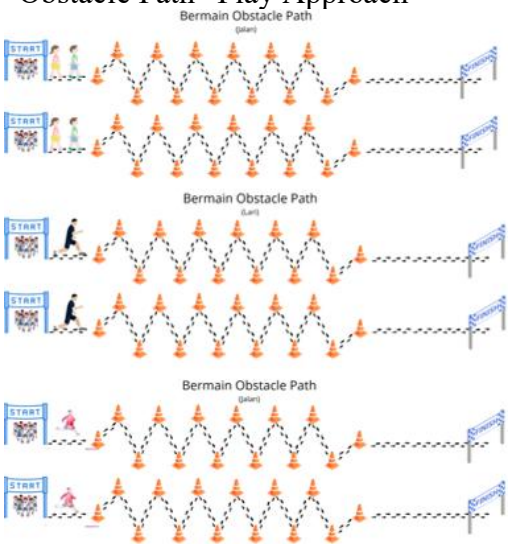
• Road:

1. "Stop & GO" Playing Approach

2. "Track Racing" Playing Approach

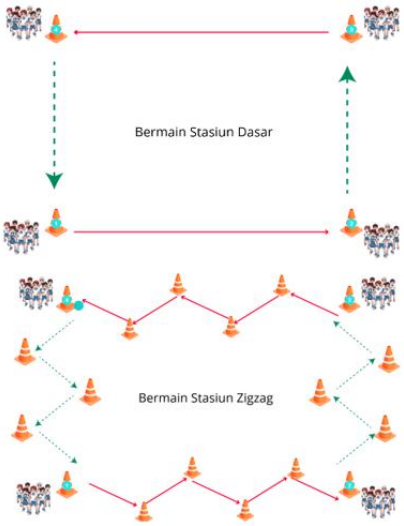


3. "Obstacle Path" Play Approach



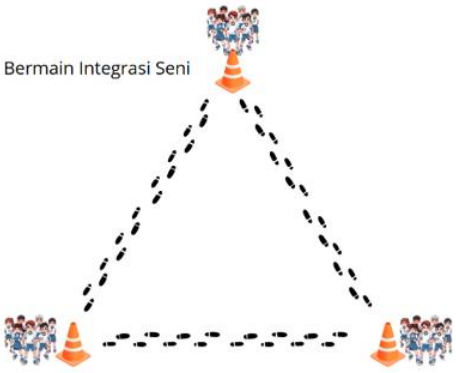
• Run:

1. "Station 1" Play Approach



2. "Station 2" Play Approach

3. "Station 3" Play Approach



4. "Station 4" Play Approach

• Jump:

1. "Mathematical Integration" Play Approach
2. "Arts Integration" Play Approach
3. "Natural Knowledge" Play Approach

This model concept will be applied to the core activities of the RPP, aiming to improve PJOK learning and adapt to current developments and student problems.

RESEARCH METHODOLOGY

A. Research Objectives The objectives of this research are to identify and explain a play-based basic locomotor movement learning model for fourth-grade elementary school students, and to determine whether the model can improve student skills. This research will assist educators or physical education teachers and is expected to be widely used by various segments. The final objective is to produce a play-based basic locomotor movement learning model.

B. Place and Time of Research

1. Research Location: Conducted in four different classes at the Elementary School level, namely Class IV A, IV B, IV C, and IV D SDN Cempaka Putih Barat 17.
2. Research Period: From January 2025 (preliminary research) to July 2025 (thesis examination), with proposal discussion until March/April and field research thereafter.

C. Research Method The research method used is research and development (R&D). R&D aims to create new products or improve existing products, based on findings and testing to ensure effectiveness and ease of use. The most commonly used learning design model is the ADDIE model (Analysis, Design, Develop, Implement, Evaluate). This ADDIE model is systematic and interactive, suitable for development research. The core of this method is to produce updates to problems that arise in the field, based on theory and previous research, systematically.

D. Research Steps This research follows the five stages of the ADDIE model with adjustments:

1. Analysis:
   - Learning Process Needs: Fourth-grade elementary school students have problems following basic locomotor movement lessons, which results in skills that are not yet fully correct. The lesson plan for fourth-grade elementary school students' basic locomotor movements still refers to teacher examples. A play-based learning approach is very suitable with a duration of 2 x 35 minutes. Students need to master basic locomotor movements as the basis for motor skills. The absence of a play approach in the lesson plan encouraged the creation of this model.
   - Student Condition: Students aged 9-10 years are still in the basic motor development stage, are more interested in fun and interactive activities, and need direct guidance and quick feedback.
   - Objective: Students can understand and practice basic locomotor movements, practice simple games that combine locomotor movements, and participate actively with a sporty and disciplined attitude.
2. Design:
   a. Using a play-based learning method to increase student engagement.
   b. Combine basic locomotor movements (walk, run, jump) with planned play.
   c. Adapt the game to the age category of fourth grade elementary school students.
   d. The designed play approaches include: Stop & Go, Track Racing, Obstacle Path, Stations 1-4, Math Integration, Arts Integration, and Natural Sciences.
3. Development:

- Prepare instruction sheets in the form of pictures to make it easier for students to understand.
- Create a game instructions sheet.

4. Implementation:
   - Implementing a basic locomotor movement learning model based on a play approach.
5. Evaluation:
   - Conduct authentic evaluation by assessing students' skills in real contexts and based on direct activities (based on John Dewey's Theory). Assessment using a score of 1-4 refers to the Likert scale theory, and can be classified into *Item Response* Theory *(IRT)*. The experts involved in the model validation are Dr. Iwan Setiawan, M.Pd. (PJOK learning expert), Dr. Sujarwo, M.Pd. (basic locomotor movement expert), and Dwi Indra Kurniawan, M.Pd. (game expert). The basic locomotor movement test instrument grid includes assessments for the head, body position, arms, and legs in walking, running, and jumping movements.

RESULTS AND DISCUSSION

A. Model Development Results The aim of developing this model is to create a learning model that can improve student skills and produce guidelines for implementing learning based on a play approach.
   1. Needs Analysis: Preliminary studies (literature and field) indicate that it is important to develop basic locomotor movement learning for fourth-grade elementary school students. Previous learning was conventional, boring, and less motivating. Technological advances have led to habits sedentary children, making them vulnerable to disengaging from the learning process. Students strongly desire learning packaged in fun games. Minimal movement habits also need to be improved. The results of this needs analysis prompted researchers to create a basic locomotor movement learning model based on an effective, efficient, interactive, and enjoyable play approach.
   2. Implementation of Model Development: Based on preliminary studies, 10 variations of basic locomotor movement learning models were compiled with variations in movements, media, and movement patterns.

B. Model Feasibility Model development follows the five ADDIE steps, starting with a preliminary study, then research design through expert validation to ensure model suitability and requirements.
   1. Expert Validation: Validation was conducted by three experts (Dr. Iwan Setiawan, Dr. Sujarwo, and Dwi Indra Kurniawan). Of the 10 designed models, 7 learning models were deemed suitable for further revision. Experts' notes emphasized that basic movements and games should be easy for children to understand, with clear language and visuals. The seven final models developed were:
      ◦ "Stop & GO" Play Approach: Improves concentration and movement control in response to changing instructions. Tools: whistle, cones, stopwatch. Instructions: students walk and stop according to the "GO" and "STOP" commands, with variations in time, concentration, groups, elimination, and direction.
      ◦ "Track Racing" Play Approach: Provides coordination, reaction, and body control, as well as fosters cooperation and sportsmanship. Equipment: whistle, cones, stopwatch. Instructions: students walk towards the finish line while jumping over obstacles, with variations in speed, coordination, groups, and elimination.
      ◦ "Obstacle Path" Play Approach: Improves motor skills in various situations, self-confidence, agility, and

balance. Equipment: whistle, cones, stopwatch. Instructions: students walk through an obstacle course (zig-zag, balance line), with variations in speed, coordination, groups, and elimination.

◦ Play Approach "Station 1 2 3 4": Develops basic locomotor strength, increases active participation, and provides a variety of organized movements. Equipment: whistle, cones, stopwatch. Instructions: students run straight, carry light objects, carry sticks/balls, or jump over obstacles.

◦ "Mathematics Integration" Play Approach: Integrated movement learning with counting concepts, fostering movement coordination and memory, motivating basic movement activities. Tools: whistle, chalk (drawing numbers), stopwatch, simple math problem sheets. Instructions: students walk and jump to numbered boxes while counting, with variations of odd/even boxes and competitions to fill in additional problems.

◦ "Arts Integration" Play Approach: Integrated movement learning with art concepts (music), fostering movement coordination and memory, motivating basic movement activities. Tools: whistle, cone, stopwatch, speaker/audio. Instructions: students walk and run in the direction, sing when there is no music, run when music is playing, change direction according to the whistle.

◦ "Natural Science" Play Approach: Integrated movement learning of natural science concepts, fostering movement coordination and memory, motivating basic movement activities. Tools: whistle, cone, stopwatch, natural science pictures. Instructions: students change positions (walk, run, jump) while carrying the science pictures in a relay, with the fastest and most accurate group as the winner.

2. Model advantages: Each play approach offers its own benefits and meets the research age criteria. Model disadvantages: The play approach needs to be tailored to the learner's size, and delivery of procedures can be hampered if the teacher does not fully understand the model.
3. Small Group Trial: Involving 36 students, the trial results showed a percentage of 80.6%, proving the model is feasible to continue.

Table 4.4 Results of Small Group Trial

Item	Subject	Result Score	Maximum Score	(%)
1-7	30	8132	10080	80,6%

4. Large Group Trial: Involving 89 students in five meetings per class (average 70 minutes). The analysis results showed 80.72%, with a good category, confirming that this basic locomotor movement model is the right choice for fourth grade elementary school students. Notes from the field trial include: differences in student characteristics, the need for conducive classroom management, and attention to infrastructure.

4.5 Large Group Trial Results

Item	Subject	Result Score	Maximum Score	(%)
1-7	89	24140	29904	80,72

5. Final Model: From 10 draft models, this study produced 7 basic locomotor movement models based on a play approach that are suitable and appropriate for use by elementary school PJOK teachers.

C. Effectiveness Test The effectiveness test was conducted to determine the success of the model in improving basic locomotor movements (walking, running, jumping). Involving 30 students in the experimental group with a pre-test and post-test design. The results of the effectiveness test (N-Gain

Score) showed an average gain of 48.9% (0.49). This concludes that the basic locomotor movement learning model based on a play approach for fourth-grade elementary school students is effective and recommended for implementation in the learning process at school.

Tabel 4.6 N-Gain Score

No	Pre Test	Post Test	Post - Pre	Skor IdealL - Pro	of	%
1	207	268	61	129	0,47	47,3
2	196	264	68	140	0,49	48,6
3	204	275	71	132	0,54	53,8
4	200	273	73	136	0,54	53,7
5	196	270	74	140	0,53	52,9
6	210	270	60	126	0,48	47,6
7	222	278	56	114	0,49	49,1
8	219	276	57	117	0,49	48,7
9	204	273	69	132	0,52	52,3
10	194	267	73	142	0,51	51,4
11	193	265	72	143	0,5	50,3
12	223	277	54	113	0,48	47,8
13	196	274	78	140	0,56	55,7
14	200	266	66	136	0,49	48,5
15	218	276	58	118	0,49	49,2
16	217	275	58	119	0,49	48,7
17	210	271	61	126	0,48	48,4
18	218	275	57	118	0,48	48,3
19	210	266	56	126	0,44	44,4
20	203	263	60	133	0,45	45,1
21	205	272	67	131	0,51	51,1
22	209	272	63	127	0,5	49,6
23	223	278	55	113	0,49	48,7
24	224	273	49	112	0,44	43,8
25	213	275	62	123	0,5	50,4
26	202	267	65	134	0,49	48,5
27	214	270	56	122	0,46	45,9
28	204	268	64	132	0,48	48,5
29	210	265	55	126	0,44	43,7
30	216	270	54	120	0,45	45
	6260	8132	62,4	127,3333333	0,49	48,9

D. Discussion The results of the effectiveness test showed good and quite significant results between the pre-test and post-test. The less-than-optimal post-test results may be caused by a decrease in student participation due to the usual learning methods or models. Therefore, innovation and renewal such as a play approach are very influential for the learning process of fourth grade elementary school students. Children's playful period needs to be facilitated in PJOK learning for maximum growth and development. Researchers hope that this innovative learning model can prevent students from feeling bored and tired.

CONCLUSION AND SUGGESTIONS

A. Conclusion

1. The basic locomotor movement learning model based on a play approach for fourth grade elementary school students needs to be innovated and developed, with a focus on skills feedback, attention to the diverse characteristics of students, and optimization of infrastructure facilities and resources.
2. The basic locomotor movement learning model based on a play approach for fourth grade elementary school students has been proven effective in improving students' abilities and skills, with an average N-Gain score of 50.3% (0.5), indicating a good increase in skills. Factors that make the model effective are the innovation of the play approach, an interesting combination of basic locomotor movements that makes students more interested and enthusiastic, and the delivery of the model by the educator or teacher in charge. Intensive and fun learning can improve students' psychomotor abilities.

B. Implications This research has important implications for the development of a play-based basic locomotor movement learning model, namely the need to improve the evaluation of learning methods to identify deficiencies and strive for innovation and creativity. The results of this study are worthy of being the basis

for the development of a basic locomotor movement learning model to improve the quality of student learning at the elementary school level.

C. Suggestions

1. Provide feedback and evaluation on each learning process to improve the quality of learning in the future.
2. Provide special training to physical education teachers in elementary schools to better understand the conditions of students at that age.
3. Improve learning support facilities to ensure optimal model development. Optimizing students' roles in the learning process requires special attention, considering their diverse characteristics. Further research is expected to explore other variables that can make learning models more effective, efficient, and engaging for students in schools, given the challenges of the external environment that make students less interested in movement activities. By considering these suggestions, it is hoped that this research will make a significant contribution to the quality of physical education learning in elementary schools.

BIBLIOGRAPHY

Abduljabar, Bambang. 2018. "Re-Orientasi Pendidikan Jasmani Kedalam Perspektif Kependidikan Dan Kemanusiaan: Meraih Belajar Siswa Mengantar Terdidik Jasmaniah Siswa." *Seminar Nasional Pendidikan Jasmani* 53(9):1–18.

Ahmad, Hamidi. 2022. "MULTILATERAL: Jurnal Pendidikan Jasmani Dan Olahraga." ... *Jasmani Dan Olahraga* 7(1):104–9.

Aisya, Nadia. 2020. "Brain Based Learning (Pembelajaran Berbasis Otak) Pada Anak Usia Dini." *Jurnal Kajian Anak (J-Sanak)* 2(01):23–39. doi: 10.24127/j-sanak.v2i01.362.

Apriyani, Nita. 2021. "Metode Bermain Dalam Pembelajaran Anak Usia Dini." *Raudhatul Athfal: Jurnal Pendidikan Islam Anak Usia Dini* 5(2):126–40. doi: 10.19109/ra.v5i2.8933.

Asyafah, Abas. 2019. "MENIMBANG MODEL PEMBELAJARAN (Kajian Teoretis-Kritis Atas Model Pembelajaran Dalam Pendidikan Islam)." *TARBAWY : Indonesian Journal of Islamic Education* 6(1):19–32. doi: 10.17509/t.v6i1.20569.

Ayu, I. Gusti, Mayra Laxsmi, Hana Puteri Nuryaganiy, and I. Gede Suwiwa. 2025. "MENGENAL DASAR-DASAR PENJAS (SEJARAH , KONSEP , DAN." 2(1):210–17.

Bukit, Servista, Reh Bungana Br Perangin-Angin, and Abdul Murad. 2022. "Strategi Guru Dalam Menumbuhkan Kemandirian Belajar Siswa Sekolah Dasar." *Jurnal Basicedu* 6(5):7858–64. doi: 10.31004/basicedu.v6i5.3633.

Candra, Erinda Ayu, Vega Chandra Dinata, and Retno Mundi. 2024. "Peningkatan Gerak Dasar Lokomotor Dengan Sirkuit Game Pada Siswa Kelas II SD Negeri 8 Pakis Surabaya." 2(4).

Danniels, Erica, and Angela Pyle. 2018. "Defining Play-Based Learning." (February):1–7.

Darani, Ni Luh wisma. 2021. "Pengaruh Model Pembelajaran Kooperatif Tipe Student Teams Achievement Division (STAD) Terhadap Hasil Belajar Teknik Dasar Passing Bola Basket." *Jurnal Pendidikan Jasmani, Olahraga Dan Kesehatan Undiksha* 8(1):13–24. doi: 10.23887/jjp.v8i1.33743.

Eka, Yuning, Rahma Wati, Riyan Jaya Sumantri, and Anggoro Dwi Cahyo. 2024. "The Relationship of Emotional Intelligence to Basic Locomotor Movements in Early Children Hubungan Kecerdasan Emosional Terhadap Gerak Dasar Lokomotor Pada Anak Usia Dini." 2(1):27.

Estari, Aan Whiti. 2020. "Pentingnya Memahami Karakteristik Peserta Didik Dalam Proses Pembelajaran." *Workshop Nasional Penguatan Kompetensi Guru Sekolah Dasar SHEs: Conference Series* 3(3):1439–44.

Fajar N., Putri M., and Hamda M. 2024. "Dampak Penggunaan Gadget Terhadap Perkembangan Motorik Anak : Literature Reviwe ." *Seminar Nasional LPPM UMMAT* 3:694–703.

Fajarwati, Ayu, and Ira Arini. 2023. "Model Pembelajaran Berbasis Lokomotor Dalam Peningkatan Keterampilan Motorik Kasar Anak Usia 5-6 Tahun." *Journal of Education Research* 4(1):317–24. doi: 10.37985/jer.v4i1.162.

Farida, Farida, Nurul Kusuma Dewi, and Vera Sholeha. 2023. "Meningkatkan Kemampuan Gerak Dasar Lokomotor Anak Usia 4-5 Tahun Melalui Media Permainan Ular Tangga Bertema Di TK Al Huda Surakarta." *Jurnal Usia Dini* 9(2):167. doi: 10.24114/jud.v9i2.52431.

Firdaus, Kamal. 2019. *PSIKOLOGI OLAHRAGA Teori Dan Aplikasi*. Vol. 11. Padang: UNP Press.

Hardika, Nevi, and Mira Fuzita. 2022. "Pengembangan Keterampilan Gerak Dasar Lokomotor Berbasis Senam Ritmik." *Jurnal Pendidikan Olahraga* 10(2):263–72. doi: 10.31571/jpo.v10i2.3295.

Hidayat, Fitria, and Muhammad Nizar. 2021. "Model Addie (Analysis, Design, Development, Implementation and Evaluation) Dalam Pembelajaran Pendidikan Agama Islam Addie (Analysis, Design, Development, Implementation and Evaluation) Model in Islamic Education Learning." *Jurnal UIN* 1(1):28–37.

Hikam, Darul. 2022. "Variasi Gerak Dasar Jalan."

Humaid, Hidayat, and Samsudin. 2019. "Abstrak Kata Kunci: Pengembangan, Model, Lompat Jauh ." 3(2):1–9.

IKAH, IKAH. 2021. "Korelasi Motivasi Dengan Hasil Belajar Mata Pelajaran Soiologi Kelas X Ips Man 1 Kota Bandung." *TEACHER : Jurnal Inovasi Karya Ilmiah Guru* 1(1):50–54. doi: 10.51878/teacher.v1i1.545.

Indanah, Indanah, Sukesih Sukesih, Fairuzza Luthfin, and Khoiriyah Khoiriyah. 2021. "Obesitas Pada Balita." *Jurnal Ilmu Keperawatan Dan Kebidanan* 12(2):242. doi: 10.26751/jikk.v12i2.1115.

Irawan, Fajar Awang, and Dhias Fajar Widya Permana. 2023. "Analisis Gerak Berjalan Untuk Pencegahan Cidera Dengan Aplikasi Dartfish." *Bookchapter Kesehatan Masyarakat Universitas Negeri Semarang* (4):53–72. doi: 10.15294/km.v1i4.120.

Iswanto, Ari, and Esti Widayati. 2021. "Pembelajaran Pendidikan Jasmani Yang Efektif Dan Berkualitas." *MAJORA: Majalah Ilmiah Olahraga* 27(1):13–17. doi: 10.21831/majora.v27i1.34259.

Kusmiati, Ai Melis, and Gano Sumarno. 2018. "Pengaruh Permainan Tradisional Terhadap Kemampuan Perseptual Motorik Anak Di SDN Margawatu II Garut Kota." *TEGAR: Journal of Teaching Physical Education in Elementary School* 1(2):17. doi: 10.17509/tegar.v1i2.11934.

Lestari, Dyah Frika. 2021. "Pengembangan Model Pembelajaran Aktivitas Jasmani Melalui Permainan Tradisional Bagi Siswa Sekolah Dasar." *Jurnal Pendidikan Jasmani, Olahraga Dan Kesehatan Undiksha* 8(1):7–12. doi: 10.23887/jjp.v8i1.33742.

Listiandi, Arfin Deri, and Didik Rilastiyo Budi. 2021. "Model Pembelajaran Dalam Pendidikan Jasmani." *Budi, D. R. (2021, February 1). Supplemental Materials for Preprint: Model Pembelajaran Dalam Pendidikan Jasmani. Retrieved From* (January):DOI:10.31219/osf.io/xzh3g. doi: 10.31219/osf.io/xzh3g.

Magdalena, Ina, Bagus Tri Sutrisno, Hanif

Abdul Jabbar, M. Astari Romahi, Much. Muhaemin Al – Azis, and Nodianus Darmadi. 2023. "Perkembangan Anak Usia Sekolah Dasar Untuk Siswa Kelas Rendah Sampai Kelas Tinggi Sdn Cimone 01 Kota Tangerang." *COMSERVA : Jurnal Penelitian Dan Pengabdian Masyarakat* 3(06):2221–29. doi: 10.59141/comserva.v3i06.999.

Mesnan, Irwansyah Panjaitan, and Amir Supriadi. 2020. "Log Book Development in Football Learning with Tactical Approaches." *Proceedings of the 1st Unimed International Conference on Sport Science (UnICoSS 2019)*.

Miftah, M. 2014. "Pemanfaatan Media Pembelajaran Untuk Peningkatan Kualitas Belajar Siswa." *Kwangsan: Jurnal Teknologi Pendidikan* 2(1):1. doi: 10.31800/jtp.kw.v2n1.p1--12.

Muhajir, Agus Gunawan. 2022. *Buku Panduan Guru PENDIDIKAN JASMANI, OLAHRAGA, DAN KESEHATAN, Kelas IV Sekolah Dasar*.

Muhajir, and Zelda Raushanfikri. 2022. *Buku Panduan Guru Pendidikan Jasmani Olahraga Dan Kesehatan*.

Mulyana, Agus, Ai Ira Siti Ruwaidah, Feni Fitriani, Hanum Eliza, Intan Samrotul Fuadah, Maulidah Ummu Kulsum, Siti Khoerunnisa, and Syifa Atiatul Hasanah. 2024. "PENGARUH OLAHRAGA LARI TERHADAP KESEHATAN SISWA SEKOLAH DASAR." *Jurnal Kajian Ilmiah Interdisiplinier* 6(6):488–93.

Muslihin, Heri Yusuf. 2020. "Bagaimana Mengajarkan Gerak Lokomotor Pada Anak Usia Dini?" *Jurnal Paud Agapedia* 2(1):76–88. doi: 10.17509/jpa.v2i1.24390.

Nurfauziyah, Dea Meisya, Burhan Hambali, and Alit Rahmat. 2023. "Ketangguhan Mental Siswa Dalam Pendidikan Jasmani Di Sekolah : Narrative Literature Review." *Jurnal PHEDHERAL* 20(2):45–57.

Nurhayati, Siti, and Khamim Zarkasih Putro. 2021. "GENERASI EMAS Jurnal Pendidikan Islam Anak Usia Dini Volume 4 Nomor 1, Mei 2021, BERMAIN DAN PERMAINAN ANAK USIA DINI." *Jurnal Pendidikan Islam Usia Dini* 4 nomor 1:1–13.

Okpatrioka. 2023. "Research And Development (R&D) Penelitian Yang Inovatif Dalam Pendidikan." *Dharma Acariya Nusantara: Jurnal Pendidikan, Bahasa Dan Budaya* 1(1):86–100. doi: 10.47861/jdan.v1i1.154.

Pahrul, Yolanda, and Rizki Amalia. 2020. "Metode Bermain Dalam Lingkaran Dalam Pengembangan Kemampuan Kognitif Anak Usia Dini Di Taman Penitipan Anak Tambusai Kecamatan Bangkinang Kota." *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini* 5(2):1464–71. doi: 10.31004/obsesi.v5i2.812.

Prasetyo, Hernando Dwi. 2021. "Model Pembelajaran Gerak Dasar Berbasis Permainan Pada Anak Usia 7-9 Tahun Di Sd Alchasannah Jakarta Barat." *Prosiding Seminar Dan Lokakarya Fakultas Ilmu Keolahragaan Universitas Negeri Jakarta* 409–14.

Pratama, Dymas Khabul. 2024. "UPAYA MENINGKATKAN GERAK DASAR LOKOMOTOR PADA SISWA KELAS I DI SDN ROWOSARI 02 DENGAN MENGGUNAKAN MEDIA BAN BEKAS." (1):1–23.

Ramadhan, Rizky Ahmad, and Fitria Rosmi. 2024. "Upaya Meningkatkan Kemampuan Dasar Lokomotor Siswa Kelas 2 SD Lab School FIP UMJ Melalui Permainan Tradisional Dan Media Cone." 203–11.

Risal, Ach Farid. 2018. "Hubungan Aktivitas Fisik Terhadap Stabilitas Anak Tunarungu (Studi Pada Siwa Tingkat SMP Di SLB Gedang Sidoarjo)." *Jurnal Pendidikan Olahraga Dan Kesehatan* 1(3):487–91.

Rohaeni, Siti. 2020. "Pengembangan Sistem Pembelajaran Dalam Implementasi Kurikulum 2013 Menggunakan Model Addie Pada Anak Usia Dini." *Instruksional* 1(2):122. doi: 10.24853/instruksional.1.2.122-130.

Salsabila, Yunavaka, and Sunarti. 2021. "Educare : Jurnal Penelitian Pendidikan Dan Pembelajaran Pengaruh Motivasi Belajar Dan Sarana Prasarana Terhadap Prestasi." 1(1):1–5.

Samsudin, Edi Setiawan, Ruslan Abdul Gani, M. E. Winarno, Mikkey Anggara Suganda, Deddy Whinata Kardiyanto, and Zsolt Németh. 2023. "Strategies for Conducting Online-Based Physical Education Research during COVID-19: Investigate the Lecturer's Perception." *Health, Sport, Rehabilitation* 9(1):19–28. doi: 10.34142/HSR.2023.09.01.02.

Sarea, Muhammad Syahrul, and Rosnia Ruslan. 2019. "KARAKTERISTIK BUTIR SOAL: CLASSICAL TEST THEORY VS ITEM RESPONSE THEORY?" *Jurnal Keendidikan* 13:6.

Septianti, Nevi, and Rara Afiani. 2020. "Pentingnya Memahami Karakteristik Siswa Sekolah Dasar Di SDN Cikokol 2." *As-Sabiqun* 2(1):7–17. doi: 10.36088/assabiqun.v2i1.611.

Stanojević, Igor. 2016. "Influence of Programmed Exercise on the Motor Abilities of Preschool Children." *International Journal of Cognitive Research in Science, Engineering and Education* 4(1):55–58. doi: 10.5937/IJCRSEE1601055S.

Subandi, Oman Unju, Fahmy Fachrezzy, Abdul Halim, Muhammad Wiyata Bhakti, and Lutvi Alparis. 2024. "Penguatan Kurikulum Merdeka Belajar Guru PJOK Desa Bobojong Kabupaten Cianjur." *PERDULI: Jurnal Pengabdian Kepada Masyarakat* 5(1):19–24. doi: 10.21009/perduli.v5i1.46419.

Suharnoko, Faizal, and Guntur Firmansyah. 2018. "Pengembangan Model Pembelajaran Melompat Melalui Permainan Lompat Cermin Untuk Siswa Sekolah Dasar." *Jurnal SPORTIF : Jurnal Penelitian Pembelajaran* 4(2):145. doi: 10.29407/js_unpgri.v4i2.12169.

Suroto, Suroto. 2024. "Karakteristik Siswa Sekolah Dasar Kelas Rendah." *Al-Ihtirafiah: Jurnal Ilmiah Pendidikan Guru Madrasah Ibtidaiyah* 4(1):1–9. doi: 10.47498/ihtirafiah.v4i1.3067.

Sutiswo, Sutiswo, Widiastuti Widiastuti, Fahmy Fachrezzy, Samsudin Samsudin, Sumbara Hambali, and Asep Akbaruddin. 2024. "Middle School Students' Interest in Learning Sprinting Online Running During New Normal." *International Journal of Disabilities Sports and Health Sciences* 7(1):150–57. doi: 10.33438/ijdshs.1381704.

Syukron Al Mubarok, Ahmad Aly, and Amini Amini. 2019. "Kemampuan Kognitif Dalam Mengurutkan Angka Melalui Metode Bermain Puzzle Angka." *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini* 4(1):77. doi: 10.31004/obsesi.v4i1.221.

Taib Harun, Mohd. 2015. "Effective Classroom Management Skills in Physical Education at Institute of Teacher Education." *Education Journal* 4(2):60. doi: 10.11648/j.edu.20150402.12.

Vanagosi, Kadek Dian. 2016. "Konsep Gerak Dasar Untuk Anak Usia Dini." *Pendidikan Kesehatan Rekreasi* 1:72–79.