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THE INFLUENCE OF TRADITIONAL APPROACH, MOVEMENT EDUCATION IN LEARNING OF PHYSICAL EDUCATION, TOWARDS PHYSICAL FITNESS, PROBLEM SOLVING CAPABILITIES IN ELEMENTARY SCHOOL 01,02,03 KEMIRI BANYUMAS, INDONESIA

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Abstract:
Purposes: (1) To know the difference of influences towards physical fitness between students who were taught using movement education approach with ones who were taught using traditional approach as well as the impacts on high class student groups, low class student groups. (2) To know the interaction of physical education learning approach towards physical fitness of student groups. (3) To know which one is the most effective advancement traditional approach or movement education. This research is experimental. The population: students of SD N 01,02,03 Kemiri. 160 samples were collected (purposive sampling). Free variables: traditional approach, movement education approach. Bound variables: Physical fitness and problem solving capabilities. Data collection: randomized group pre-test-post-test designs. Data analysis used (ANOVA). Conclusions: (1) There were different impacts between physical fitness of students being taught using movement education approach with students being taught using traditional education with significance value 0.000 is 0.05 of F=1.491 as well as differences of impacts on the high class group and low class group with significance value 0.0000 is = 0.05 F=1.7773 (3) There were interactions of physical education learning approach towards the physical fitness of a group of students. (4) There were differences of impacts on the problem solving capabilities between students being taught using movement education approach and students being taught using traditional approach.

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(5) There were interactions of physical education learning approach towards problem solving capabilities. Movement education approach student group was more advanced than traditional approach probability 0.002 from the Table of between subjects effects *Fhitung*.

Keywords: physical fitness, problem solving capabilities, elementary school

1. Introduction

The most important task in carrying out physical education is to help students to be able to undergo a process of growth and optimal development in physical, motor, mental and social. Learning, as written by Rusli Lutan (2001: 7) is *"behavior change as a result of the experience, not because of the influence of heredity or maturity."* Changes in the behavior expected of learning are permanently attached. The learning process itself cannot be observed directly. However, its appropriateness can only be interpreted based on actual observed behavior.

The behavior changes will occur through a deliberate process of teaching, which was done on purpose, accidental, unintended, even perhaps because someone made learning mistakes. Physical education as an integral part and as an educational tool is much defined by a variety of stresses. Both, on the process and on the destination. One of them is quoted by Rusli Lutan as follows "*physical education is an integral part of education through physical activity which aims to improve individual organically, neuromuscular, intellectually, and emotionally*." In essence; "*Physical education is a process of education via the movement of human (human movement) which can be physical activity, game or sport to achieve educational goals*" (Rusli Lutan: 7: 1995-1996).

A. Teaching Approach And Style

Learning approach as an attempt of efficiency process that will bridge between goals to learning outcomes. Physical education learning purposes as suggested by Bucher in Adang Suherman (1998: 4) are as follows:

1. Physical development. This objective relates to the ability to perform activities that involve physical forces of various organs of the body of a person *(physical fitness);*
2. Motor development. This objective relates to the ability to move effectively, efficiently, smoothly, beautifully, perfectly*(full skill);*
3. Mental development. This objective relates to the ability to think and interpret the overall knowledge of education.

The type of approach along with simple descriptions of each approach that is widely used, especially in American schools written by Adang Suherman (1998: 5) as follows:

1. *Movement Education*

The *Education Movement* in Essentially an approach that put more pressure on the mastery of movement skills. The purpose of this approach is primarily to improve the quantity and quality of movement as a skilled, efficient, effective on planned or unplanned situation; improving understanding, and a pleasure to movement either as perpetrators or spectators; improving knowledge and applying knowledge of human movement.

2. *Fitness Approach*

Fitness Approach is an approach that put more emphasis on increasing mastery of the knowledge, skills and quality of the physical movement of their students.

3. *Academic-Discipline Approach*

This approach is basically an approach that put more emphasis on the mastery of physical education in depth: how to maintain a healthy lifestyle, fill his spare time, becoming attendants or users of fitness and physical education programs in the community.

5. *Social-Development Model*

This approach is basically an approach that put more emphasis on the individual and social development of students. One example of these educational models is developed by Donald Hellison (1973, 1978, 1982) with the term *"teaching responsibility through physical activity"* by applying the concept of *"levels of affective development"*.

6. *Sport Education Model*

This approach is basically an approach that emphasizes more on the maintenance and enhancement of the pure values of competitive sport as is often done outside the school environment.

7. Adventure-Education Approach

This approach is basically an approach that put more emphasis on adventure activities that are full of risks in a more natural environment (e.g., mountain climbing, *cross country, camping).*

B. Teaching style (Problem-solving style)

This style of teaching *(teaching style)* is a ploy to intensify in performing the tasks of teaching. With regard to some of the styles being used, in the practice there is not one style of teaching that is considered to be the most successful, because it depends on the

situation. However, from some of the existing teaching style, the style of problem solving and guided discovery will be discussed because it is very relevant to the teaching of student-centered physical education. The style consists of the inclusion of information in the selection of ideas and responses. The problem must be designed so that the answer is not just one answer. If so, this style has shifted into a style called guided discovery. The problem is designed from easy to difficult. For example, "*what is the difference between ball toss results in a state of both feet rest on the floor, with ball toss results in a state of both legs moving?*" Questions can be more difficult. For example: *"how is the shape of the advance move of the foot to kick in football so that the ball does not bounce away over the crossbar?"*

Problem-solving can be carried out by individuals or groups in the upscale class. The steps are as follow:

1. Presentation of the problem, the teacher presents a problem to students in the form of questions or statements to stimulate thinking. No explanation or demonstration because the solution comes from children.
2. Specify the procedure. The students should think about the procedures required to achieve resolution. If the age of the children was as young as it was at the beginning of class (class 1, 2, or 3), the issues raised are also much simpler.
3. Experimenting and exploring. In the experiment, the students tried several possible ways to solve problems, as well as assess and make a choice. When searching for answers, it is the children who determine the direction of a solution. Meanwhile, teachers have only an advisory role, such as answering questions, help, leave a comment and encourage students. However, the teachers did not reveal the answer. Sufficient time should be designed to find answers. Observe, evaluate and discuss. Each child needs to have the opportunity to put forward answers and observe what other students find. Various kinds of findings can be performed by children as individuals, small groups, a rather large group, or part of class discussions focused on typical solving testing.
4. Smoothing and expansion. After observing the solution proposed by other students, and evaluating the reasons behind the chosen solution, what they are going to do?
5. Each child had the opportunity to redo their movement pattern, combining one idea with another.

C. Movement Education Model (Movement Education)

Movement education used "problem solving" approach; with an emphasis on exploration, selection and creativity to develop motor skills effectively and efficiently, through understanding / comprehension of the basic principles of human movement. The model was developed by Rudolf Laban, which suggests the existence of four main elements in movement are:

1. Understanding about the body, about what is done by the body or body parts.
2. An understanding of space, of where the body moves.
3. An understanding of the way as to how the body moves.
4. Concerning the relationship, i.e., correlations of body parts, or with other people and other objects.

These four elements in movement education model, is used as the basic framework in shaping the experiences of movement and the expanding and developing children movement quality. Aside from the elements above, in planning the physical education program, movement education model refers to three movement components namely:

1. *Locomotor:* the ability to move from one place to another (walk, run, jump, sliding, skipping, and so on).
2. *Non-locomotor:* movement patterns performed on one spot (swing, reject, pull, bend, stretch, twist, etc.)
3. *Manipulative:* movement using tools, which involves hand-eye coordination, foot and hand coordination, foot and eye coordination (throwing, catching, hitting, kicking).

Characteristics of movement education model are:

1. Movement education allows maximum opportunities of activity for the students.
2. Movement education is centered on children *(child centered)* not on the activity *(activity centered).* This requires teachers to constantly modify and adapt activities to the needs of the children, instead of expecting the children to adapt the activity.
3. Effective insights are formed directly, and not as a byproduct.
4. Students are cognitively involved in a more direct way.
5. The study design is a "pattern of success" *(success structured).*
6. Students are treated as "decision-makers".
7. "Guided discovery" and "problem solving" approach or strategy.

In the process of learning by problem-solving, then as a result appeared "personality", creativity, diversity in the scope of the *"general movement"*. If the way of

guided discovery is *"closed-ended"*, i.e., teachers guide students to find something specific, then the problem-solving approach is an *"open ended"* process. Every new and different problem can lead students to various solutions. The problem design: all the issues proposed by the students must be relevant to the subject, the preparedness / maturity of the students and experience, both groups and individuals.

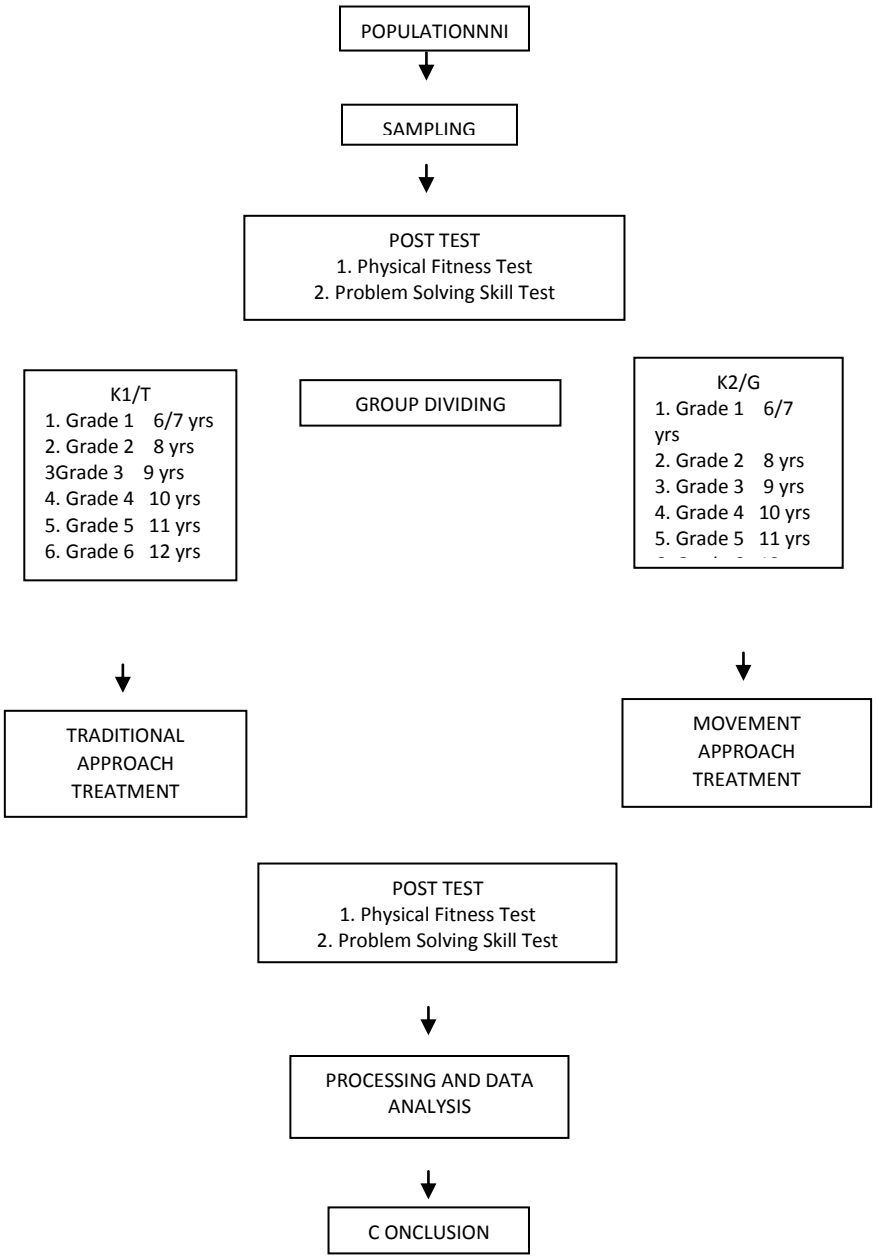
2. Method

This study is a field experiment using the population of SD N 1, 2 and 3 students Kemiri Village Sumpiuh Subdistrict from class I to class VI (ages 6 to 12 years). Since this study emphasizes the action of teachers to student performance in order to improve effectiveness lessons to improve physical fitness level and ability to solve problems, the technique that is used to take a sample of the population is a simple random technique (simple random sampling) by way of conducting pre-test to the entire population. The sample size used in this study were 160 elementary students N 1, 2 and 3 Kemiri village Sumpiuh Subdistrict Banyumas Regency which must meet the requirements to meet the goals of the research. The method of data collection in this study is the experimental method with "Randomized group pre-test-post-test design" that began pre-test and ended with post-test with t. factorial design "2 x 2 which can be seen as follows:

Teaching approach V Fitness and Problem	**Movement Education Approach (A1)**	**Traditional Approach (A2)**
Low Grade (B1) 1,2 dan 3	A1B1 (Y1)	A2B1 (Y3)
High Grade (B2) 4,5 dan 6	A1B2 (Y2)	A2B2 (Y4)

A1 : Movement Education Approach
A2 : Traditional Approach
B1 : High Grade Groups
B2 : Low Grade Groups

Figure 1: Schematic Design Research



A. Instruments of Data Collection

To measure the physical fitness level of the students, the physical fitness test tool from the Department of Education and PJKR Jakarta 2004 was used on the students of SD (Elementary School) in Indonesia (aged 6-12 years). 2.1 The type of test that was used for elementary school 1, 2 and 3 (low grade) was (1) 30 M sprint, (2) 30 seconds pull up.

a. 2.2 The type of test used for primary school classes 4,5 and 6 (high grade) are: (1) 40 M sprint, (2) 30 seconds pull up, 30 seconds sit up, (4) vertical jump, and (5) 600 M run

b. 2.3 The reliability and validity of Physical Education Test. A series of tests were conducted on elementary school male and female students of 1, 2 and 3 have reliability values of 0.81 and 1.06 validity value (Doolitte) Department of Education and PJKR Jakarta (2004).
c. 2.4 In order to measure the student's ability to solve problems, tools such as numerical rating scale was used based on a logical scale according to the judgment (opinion) of experts in the evaluation. Here's an example of the assessment criteria for measuring physical fitness tests for children.

The table above is the criteria example from TKJI value for 60 m run and jump straight for the children according to Pangrazi Robert (2001) which have been adjusted to the culture and the general condition of children in Indonesia.

Age 6 s / d 9 years		Value	Age 10 s / d 12 years	
Male Students	**Female Students**		**Male Students**	**Female Students**
Up to- 5.5 seconds	sd - 5.8 seconds	5	Up to- 6.3 seconds	Sd - 6.7 seconds
5.6 - 6.1 seconds	5.9 - 6.6 seconds	4	6.4 - 6.9 seconds	6.8 - 7.5 seconds
6.2 - 6.9 seconds	6.7 - 7.8 seconds	3	7.0 - 7.7 seconds	7.6 - 8.3 seconds
7.0 - 8.6 seconds	7.9 - 9.2 seconds	2	7.8 - 8.8 seconds	8.4 - 9.6 seconds
8.7 – etc	9.3 – etc	1	8.9 - etc	9.7 - etc

Age 6 s / d 9 years		Value	Age 10 s / d 12 years	
Male Students	**Female Students**		**Male Students**	**Female Students**
38 cm and above	38 cm and above	5	46 cm and above	42 cm
30-37 cm	30-37 cm	4	38-45 cm	34-41 cm
22-29 cm	22-29 cm	3	31-37cm	28-33 cm
13-21 cm	13-21 cm	2	24-30 cm	21-27 cm
Below 13 cm	Below 13 cm	1	Below 24 cm	Below 21 cm

3. Result and Discussion

Description of the data analysis results of physical fitness tests and problem solving skills are carried out in accordance with the groups being compared, presented in the following table forms. Hypothesis testing using statistical techniques of analysis of

variance (ANOVA), which require the analysis requirements testing, the results of the test, requirements analysis, hypothesis testing and discussion of research results, were then presented.

Model	Rankings	Mean	Std. deviation	N
Move Education Model	Low grade	3.5035	23.64866	40
	High grade	3. 7552	27.58851	40
	Total	3.7395	25.78681	80
Traditional Model	Low grade	3.3895	28.30326	40
	High grade	3.6895	23.68376	40
	Total	3.9895	25.93024	80

a. First Hypothesis Testing

For the physical fitness test, the results showed a significant difference between the increase in physical fitness treated with movement education approach and traditional approach is F = 1,491 with significant value 0,000 is <0.05, then the movement education approach and traditional approach have different effects. This means that the null hypothesis (H_0) denied that there is a significant difference between the two treatment groups

Model	Tingkatan	Mean	Std. Deviation	N
Move Education Model	Low grade	3.5035	23.64866	40
	High grade	3. 7552	27.58851	40
	Total	3.7395	25.78681	80
Traditional Model	Low grade	3.3895	28.30326	40
	High grade	3.6895	23.68376	40
	Total	3.9895	25.93024	80
Total	Low grade	3.6395	25.92399	80
	Low grade	4.3325	25.91100	80
	Total	3.9895	25.89888	160

b. The second hypothesis testing

For low grade and high grade, the results showed a significant difference between p Increased physical fitness. Troubleshooting F = 1,773 with significant value 0,000 is <0.05 then the level of low grade and high grade has different influences. This means that the null hypothesis (H_0) denied that there is a significant difference.

c. Third Hypothesis Testing

The interaction of major research factor in the form of the interaction of two factors indicate that there is an interaction between pmbelajaran and class level approach to physical fitness and the ability to solve problems, from table *Test of between-subjects effects* F_{count} was 1,043 with a probability of 0.002 is less than 0.05 then it is said that there is an interaction between the two factors research.

Dependent Variable: Nilai

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2036.800[a]	3	678.933	1.012	.389
Intercept	1.976	1	1.976	2.947	.000
Faktor1	1000.000	1	1000.000	1.491	.004
Faktor2	518.400	1	518.400	1.773	.001
Faktor1 * Faktor2	518.400	1	518.400	1.043	.002
Error	104612.800	156	670.595		
Total	1.987	160			
Corrected Total	106649.600	159			

a. R Squared = .019 (Adjusted R Squared = .000)

4. Conclusion

A. Conclusions of Physical Fitness Variables

Based on the result of analysis using Anova, it can be concluded as follows:

1. There was a significant difference of effects to the physical fitness of students being taught using educational approach movement with the students being taught using traditional approach. Overall, educational approach movement without considering the grade of students the increase of their physical fitness is better than traditional approach. Evidently the approach to physical education to improve the physical fitness of students regardless of student characteristics.
2. There was a significant difference of effects in the group of students of high grade and low-grade student group. Both treatment groups regardless of their learning approach; high-grade student group gained increased physical fitness is better than low-grade student group. This is true according to the previous assumption has been alleged that a group of high-grade student learning results will differ theoretically lower grade student group.

3. There was an interaction between the learning approaches of physical education to physical fitness with a group of students (maturity of the students). Movement education approach is superior.

B. Conclusions of troubleshooting variable

Based on the result of analysis by Anova, it can be concluded as follows:

1. There was a significant difference of effects in the ability to solve problems between the students taught using movement education approach with students being taught using traditional approach. Overall educational approach movement without considering the grade group of students increased ability to solve the problem better than traditional approaches. Evidently, movement education approach was more effective to be used in teaching problem-solving skills to improve the physical fitness of students regardless of student characteristics.
2. There was a significant difference in the group of students of high grade and low-grade student groups. Regardless both treatment groups of their learning approaches, groups of high-grade students gain increased ability to solve problems better than the low-grade student group. This is true according to the previous assumption that has been alleged that a group of high-grade student learning results will differ theoretically lower grade student group.
3. There was an interaction between the learning approaches of physical education on problem-solving skills with a group of students (maturity of the students). Movement education approach is superior compared to traditional approach therefore, there is an increased fitness.

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