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Implementation Of Physical Literacy Model In Physical Education, Sport And Health (PJOK) Learning In Elementary School

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Abstract

The specific objective to be achieved in this study is to apply the physical literacy model in learning physical education, sports, and health in elementary schools (PJOK SD). With the implementation of the physical literacy model in PJOK SD learning, it is hoped that there will be an increase in the quality of physical activity with moderate to high intensity (MVPA/Moderate to Vigorous Physical Activity) with the added value of specific goals from physical literacy. The research method to achieve the objectives was an experimental pretest-posttest control group design. The research subjects to develop instruments for implementing the physical literacy model for SD PJOK learning were physical education experts, student development experts, sports coaching experts, and Physical Education teachers. While the research subjects to test the instrument's reliability were fifth-grade elementary school students in the Surabaya area. Research data collection used tools developed based on literature studies on physical literacy models, FGD (Focus Group Discussion), and trials. Data analysis based on the nature and descriptive statistical research design, paired sample t-test, and independent sample test t-test. The results of this study showed that there was a significant difference between the pretest and post-test results in the control group. There was a substantial difference between the pretest and post-test results in the experimental group. There was no significant difference between the pretest results of the control group and the experimental groups' pretest results. However, looking at the mean between the control and experimental groups, there tends to be an increase in the experimental group. These results can help parents, trainers, and educators, especially PJOK SD teachers, conduct coaching and movement education for elementary school students. In addition, it is expected to be able to develop the competence of elementary school students as a whole.

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INTRODUCTION

The challenges of society with the increasingly rapid development of science and technology, especially in the aspect of information technology, are becoming increasingly severe because in the use of various technological products, a level of readiness, both knowledge and attitude, is needed to be able to support their quality of life. UNESA has the believes to be able to make a positive contribution to society to be able to take advantage of information and communication technology to become more competitive for a better life.

It concerns the quality of society, which relates to the concept of the whole human being in national education goals. The coveted quality of the entire human being is not only about knowledge but also physical, social, and attitude components.

The physical component is a component that has a strategic role in supporting the achievement of productive human beings (Ramadan, 2022). Still, it has not received serious attention in society or even education. The more complete the problem of this physical component with various issues of inactive habit or sedentary lifestyle due to advances in technology and information. It is not surprising that the fitness level of Indonesian people, mainly primary and secondary school students, is still low due to an active lifestyle which is becoming a rarity.

The problem of an active culture of life apart from the impact of ICT advances is also a problem of low social awareness related to physical literacy. Physical literacy by UNESCO has been seen as necessary for forming a complete human being in society. Research on physical literacy has been carried out in the last ten years. Among them is research on the function of physical literacy in recreational programs (Dwayne; Nadine; Emily; Aimee, 2016), challenges and opportunities for physical literacy in physical education (Lundvall, 2015; Hadiana et al., 2020), as well as research on the importance, assessment and future of physical literacy (Giblin, Collins, Butto, 2014).

Literacy is becoming increasingly urgent to develop, especially in academic units; Whitehead (2013) outlines the main trends and concerns in areas related to physical education and involvement in lifelong physical activity, including: 1) Few people continue physical activity after leaving school, 2) increasing sedentary lifestyles, 3) Cases of obesity - and stress-related conditions are increasing, 4) In many schools, other ranges of physical activity exist, but are not receiving enough attention as necessary.

Roetert and Jefferies (2014) discussed the possibility of embracing physical literacy in physical education and physical activity that existed earlier in America. Routers and Jefferies even revealed that physical literacy is a potential that can be adopted as a critical component in physical education and physical activity. Many countries have developed physical literacy guidelines, starting from the definition, framework, and system and up to

the assessment. Several countries already have physical literacy guidelines, including Canada, the UK, Australia, and New Zealand (Giblin, Collins, Butto, 2014). In these countries, the physical literacy guidelines also include instruments for assessing basic motor skills, sports skills, knowledge, perceptions, and attitudes towards physical activity. However, the majority are still in print and electronic form.

In Indonesia, sources of information on physical literacy still need to be improved, and more needs to be developed specifically to facilitate and maintain student physical activity standards so that they can promote an active lifestyle. Assessment instruments and standards for physical literacy still need to be created, even in print or e-book form. This is a significant issue that has received the attention of researchers.

In addition to covering various movement components, movement literacy is also equipped with movement knowledge components, attitudes towards physical activity and evaluation of physical activity performance. Efforts to promote this complex movement literacy among teachers, parents and students are a challenging matter. Physical literacy, which includes these various components, is ideal for physical education subjects in elementary schools. Apart from covering these various components, the curriculum presented at the elementary school level is also the right time to instil basic movement foundations and instil a cultural character of a healthy and active life.

This research is very urgent to be carried out to provide empirical findings for efforts to improve the active quality of life of elementary school students. The research findings will be produced by applying/implementing the physical literacy model in physical education learning. With the discovery of these data, how physical education teachers carry out the process of internalizing an active and fit living culture will be seen. The findings of this study will also be used as one of the bases for developing models, instruments and standards of physical literacy for elementary school students in the broader scope.

In the realm of science and technology development in general, the findings of this study will be helpful as initial findings on the function of the physical literacy model with the concept of MVPA (Moderate to Vigorous Physical Activity) for elementary school students, namely research theory whose results can be used as a basis for the development of other functions in physical education learning such as active, healthy living promotion functions, Olympic values, and others.

The concept of physical literacy emerged in the late 1980s (Whitehead, 1990) to understand children's decreased physical activity more comprehensively. Physical activity and physical literacy are interrelated because those who enjoy and participate in physical activity are likelier to have the skills, fitness, motivation and knowledge to continue a positive lifestyle throughout their lives (Thomas: 2016). Physical literacy is

defined as the development of fundamental movement skills and fundamental sports skills that enable a child to move confidently and under control, in a variety of physical activities, rhythmic situations (dance) and sports" (Higgs, Balyi, Way, Cardinal, Norris & Bluechardt, 2008) With a not much different intention Whitehead, (2010) defines physical literacy By the gifts of each, physical literacy can be described as motivation, confidence, physical competence, knowledge and understanding to maintain physical activity throughout the life path.

Physical literacy is the development of fundamental movement skills that enable a person to be active in life, in individual play, team play, sports and other physical activities. Physical is the body and fundamental movement skills, while literacy is the tools and education needed to learn, grow and develop these physical skills (City of Richmond). Meanwhile, according to Brian et al. (2008), physical literacy is the ability to use body management, locomotor and object control skills competently and apply them confidently in settings that may lead to sustained sports and physical recreation involvement.

METHODS

The research design in this study was a quantitative study with treatment. The method used in this research is the one-group pretest-posttest design pre-experimental research method with one group used to test the effectiveness of the physical literacy model in learning physical education for elementary students (Ramadan & Juniarti, 2020). The following is the variable matrix in this study:

Table 1 Research design pretest-posttest control group design

O1	X	O2
Pretest	Treatment	Post-test
O3	X	O4
Pretest	-	Post-test

Table 2 Matrix of Research Variables

Eksperimental Variable (treatment)		
Independent Variable	Moderator Variable	Dependent Variable
Physical education is integrated with physical literacy	MVPA (Moderate to Vigorous Physical Activity)	Gross Motor Movement and Fitness

The research subjects were elementary school teachers and students in the Surabaya area. Research variable. Based on the activities to be carried out as a physical literacy model experiment complete with assessment instruments and standards, independent variables: Physical literacy guidelines for elementary students, and

moderator variables: Basic Movement Skills, fitness, life skills, and physical activity. Research Instruments. The research instrument was used to measure gross motor development with the TGMD-2 Instrument and the fitness level of students using the MFT.

Research procedure. The research team conducted a literature review of the physical literacy model in physical education learning, conducted FGDs and validated the developed model to experts. The developed model was then trained on PJOK SD teachers. After completing the training process, the teacher implements the physical literacy model from the training results in one of the learning materials. During the treatment process, researchers monitored the implementation of the model. At the end of the treatment, the researcher assessed the achievement of physical literacy from the side of the teacher and students during the treatment process.

Data from environmental analysis questionnaires, expert validation and implementation trials were processed with descriptive quantitative statistics. The data obtained from one experimental group's pretest and post-test results were analyzed using the one-sample t-test statistic.

FINDINGS AND DISCUSSION

56 grade 4 elementary school students were involved in this study. Students are grouped into two classes, namely the control class and the experimental class. The control class consisted of 28 students, and the experimental class consisted of 28 students. Each student does a pretest which consists of a gross motor development test and a physical fitness test. Only in the control group did the learning follow the learning plan determined by adding physical activity outside of school hours.

Ultimately, all groups of students did the post-test with the same test items during the pretest. The following shows the data from the pretest and post-test results.

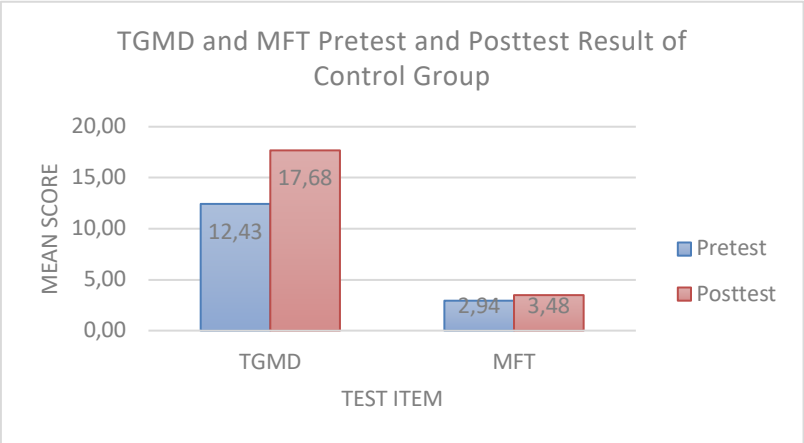

Figure 1 Diagram of the pretest and post-test results of the control group

In descriptive statistics, there is a difference between the pretest and post-test results of the control group. The TGMD pretest got an average score of 12.43, while the post-test scored 17.68. The results of the fitness pretest got an average score of 2.94, while the post-test got a score of 3.48.

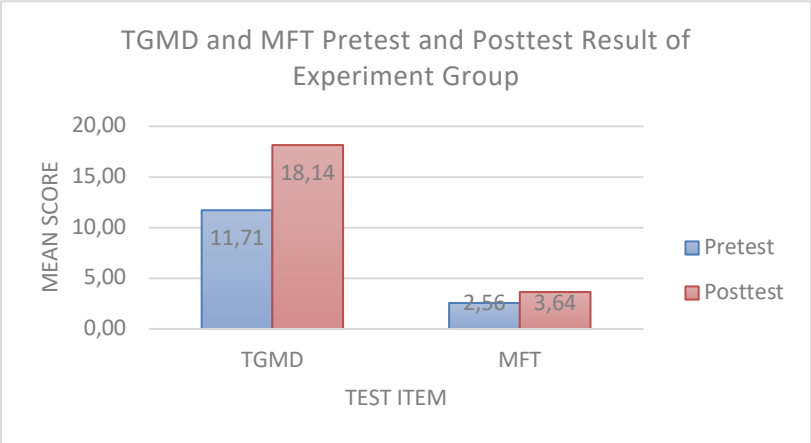

Figure 2 Diagram of pretest and post-test results of the experimental group

In descriptive statistics, there is a difference between the pretest and post-test results of the experimental group. The TGMD pretest got an average score of 11.71, while the post-test scored 18.14. On the pretest results, fitness got an average score of 2.56, while the post-test scored 3.64.

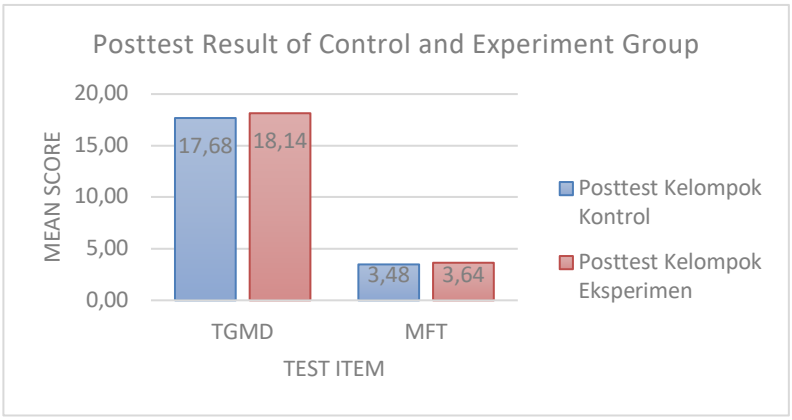

Figure 3. Post-test results diagram for the control group and the experimental group

In descriptive statistics, there is a difference between the post-test results of the control and experimental groups. The control group on the TGMD test got an average score of 17.68, while the experimental group got a score of 18.14. There is a difference of 0.46 between the control and experimental groups. On the fitness test results, the control group got an average score of 3.48, while the experimental group got a score of 3.64. There

is a difference of 0.16 between the control and experimental groups.

Table 1 Paired T-Test Control Group

Paired T-Test Control Group	
Sample	28
DF	27
Critical Limit	0,05
T Table	-1,703288446
Mean 1	15,36464286
Mean 2	20,61464286
mean difference	5,25
SD Difference	3,100979108
T Count	8,958586239
Difference	There Are Significant Differences
Hypothesis Answer	H0 Rejected

Based on the Paired T-Test on the pretest and post-test results of the control group, the T Count results were 8.958586239 > from T Count -1.703288446, which means there was a significant difference between the pretest and post-test results in the control group.

Table 2 Paired T-Test Experiment Group

Paired T-Test Experiment Group	
Sample	28
DF	27
Critical Limit	0,05
T Table	-1,703288446
Mean 1	14,27857143
Mean 2	20,70714286
mean difference	6,428571429
SD Difference	2,846408406
T Count	11,95078067
Difference	There Are Significant Differences
Hypothesis Answer	H0 Rejected

Based on the Paired T-Test on the pretest and post-test results of the experimental group, the T Count results were 11.95078067 > from T Count -1.703288446, meaning there was a significant difference between the pretest and post-test results in the experimental group.

Table 3 Independent T-Test Control group and experimental group

Independent T-Test Control group and experimental group	
P Value =	0,897024028
Sig=	Not significant
Control Group Means	20,61464286
Experimental Group Mean	20,70714286

Difference	-0,0925
Trend	Enhancement

Meanwhile, in the Independent TTest test between the control and experimental groups, a P value of 0.897024028 was obtained, which means that there was no significant difference between the pretest results of the control group and the experimental group. However, looking at the mean between the control and experimental groups, there tends to be an increase in the experimental group.

CONCLUSION

Based on a series of studies conducted, it was concluded that there was a significant difference between the pretest and post-test results in the control group. There was a significant difference between the pretest and post-test results in the experimental group.

There was no significant difference between the pretest results of the control group and the experimental groups' pretest results. However, looking at the mean between the control and experimental groups, there tends to be an increase in the experimental group. The findings in this study indicate no significant difference between the control and experimental groups, although there is a tendency for the experimental group to obtain better results. Accordingly, the following recommendations are given regarding these findings: 1) Conduct research with a more significant number of samples in other areas; 2) I was paying attention to minimizing intervention outside of the existing treatment in the experimental group and minimizing the presence of other treatments in the control group; 3) The treatment design carried out from the beginning of the semester to the end of the semester will make the results more accurate.

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