



## **Implementation of Play Method in Physical Education Learning to Improve Physical Fitness and Learning Motivation of Students**

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### **ABSTRACT**

Physical education, sports, and health are forms of education that encourage students to be actively involved through fun and interactive learning methods in order to achieve the goal of improving physical fitness and student learning motivation. This study aims to determine whether the play method has an effect on improving physical fitness and student learning motivation when applied to PJOK learning. The implementation of this research took place at SMK Negeri 2 Surabaya, Jl. Tentara Genie Pelajar No.26, Petemon Village, Sawahan District, Surabaya City, East Java. This study uses a quantitative approach. While the data collection process is carried out using tests and measurements to determine the level of fitness during *the pretest* and *posttest* and questionnaires to identify student responses to increased motivation in *the pretest* and *posttest* after the implementation of the play method. The test results were then analyzed using Descriptive tests, T tests (*paired sample t-test* and *independent sample t-test*). Based on the results of the analysis, the results of the study on increasing physical fitness in the experimental group (*Pre-Post*) produced *Asymp Sig.* ( $0.001 < 0.05$ ) so it is concluded that  $H_a$  is accepted and  $H_o$  is rejected which means there is a significant influence from the provision of treatment. While the learning motivation in the experimental group (*Pre-Post*) produces *Asymp Sig.* ( $0.000 < 0.05$ ) so it is concluded that  $H_a$  is accepted and  $H_o$  is rejected which means there is a significant influence from the provision of treatment. The large influence of the application of the play method in PJOK learning on improving students' physical fitness resulted in an increase of 37.09%, and the learning motivation obtained an increase of 9.86%.

**Keywords:** *Play Method, Physical Fitness, Learning Motivation*

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## **INTRODUCTION**

Education is a component important for ability every man For reach his needs, because matter This functioning For increase standard man Good in a way individual and also collective (Ziftahni Rachma Sukarna et al., 2023). Education is also a place for humans to develop themselves which will last a lifetime, therefore the basic needs of students must be met in following each learning process carried out. Education at school is formal education involving teachers and students. Interaction between teachers and student can called with the learning

process (Rohmah et al., 2014). A teacher holds a very important role important , teachers must know And direct students to have selfefficacy so that student capable solve problem in learning (Pratama et al., 2024) . Students at school show great enthusiasm during lesson Education Physical (PJOK) because they see it as chance For play with Friend peers (Y & Sudarso, 2014) . Therefore, PJOK is included in the integral education category so that students not only have skill abilities but also have knowledge abilities that can support their lives in the future. (Guarango , 2022) . This because of implementation learning education physical No only limited on classroom learning conventional And studies theoretically . However , this This can involving physical , mental, intellectual , emotional , and social elements , which of course very needed in the future For to form superior personality (Nurjanah et al., 2014) .

21st century learning, especially in PJOK subjects, is oriented towards constructivism, which means that learning must be able to run more effectively and involve students directly. PJOK taught in schools have a very important role important that is give chance for participant educate For involved direct in various experience Study through activity physical , sports And health (Gunardi et al., 2023) . At the same time, at present, some people look down on the subject of Physical Education and Health, because they think that if you only do sports, there is no need for theory or learning about it. (Wake Up, 2016) . Physical fitness learning is very necessary for student learning activities because if it is not supported by good physical fitness, it will potentially disrupt the course of activities carried out. The definition of physical fitness itself is the ability of a person's body or individual to be able to carry out daily activities without feeling excessive fatigue. (Prakosa & Hartati, 2022) . Physical fitness is one of the goals of education where students achieve a healthy state. (Utari et al., 2017) . Physical education utilizes physical activity to produce holistic changes and individual qualities, both physically, mentally and emotionally. (Agustini et al., 2016) . Through physical fitness, a person's creativity can be increased, which is useful for increasing work capacity in the development and defense of the nation and state (Erfan, 2017) .

method is a method of delivering learning without ignoring the main material. (Yane, 2018). The playing method can improve the cognitive, affective and psychomotor aspects of students which can be seen from their efforts in solving problems and developing strategies to complete a game. (Nurjaya & Mulyana, 2010). The play method can be applied to all ages and at various levels of education, but the portion must still be adjusted to the aspects in the curriculum and take into account physical development, age and level of education being taken (Hartanto & Bachtiar, 2018).

Based on the results of observations on April 28-30, 2024, it was found that students were still less motivated to carry out tasks and movement activities in participating in PJOK learning because of the influence of *gadgets* that made them lazy to move. Therefore, PJOK learning must be packaged well and attractively so that students are motivated to carry out the movement tasks that will be given. Not only that, the results of observations with PJOK teacher Drs. Rusbandi, MM obtained verbal information regarding the condition of physical fitness at the school. He said that the condition of physical fitness at the school was still in the poor category, which can be seen when movement activities were carried out in learning activities, there were still many students who easily became tired. Physical fitness and learning motivation are important components because students who have good motivation and fitness, when participating in the learning process, they will more easily accept the teaching materials presented by the educator.

## **METHOD**

This study uses a quantitative research approach because in this study the data is in the form of numbers or numerics that will be used in determining the results of the study. This type of research uses a quasi-experimental research type. This method is a study that is causal by adding control variables. (Hafni Sahir, 2022). This research was conducted at SMKN 2 Surabaya located on Jl. Tentara Genie Pelajar No.26, Petemon Village, Sawahan District, Surabaya City, East Java, Postal Code 60252. This research was conducted in May 2024 with four meetings.

Population is the overall score of individuals whose characteristics are to be studied and these units are called units of analysis, and can be people, institutions, objects. (Hafni Sahir, 2022). This study population was grade X students at SMKN 2 Surabaya covering 866 students in 24 classes. A sample is a portion of the entire object to be studied and which has certain characteristics of a population. (Khija et al., 2015). Sampling in this study used *cluster random sampling* because the group selection was done randomly so that all populations had the same opportunity.

Research instruments are measuring tools that will be used in research to collect accurate data. (Matondang, 2014). This study uses *a pacer test* to measure the increase in physical fitness of students. To measure students' learning motivation in participating in PJOK learning, a motivation questionnaire will be used.

## RESULTS AND DISCUSSION

### Results

The research results obtained in the research process from *the pre-test* and *post-test* conducted in the control and experimental classes. The data obtained were analyzed using IBM SPSS 29.0.2.0.

#### 1. Data Description

<i>Descriptive Statistics</i>							
Group	Test	N	Minimum	Maximum	Mean	Standard Deviation	
Fitness Physical	Experiment	Pre	35	10	39	21.77	8.303
		Post	35	12	39	23.49	7,849
	Control	Pre	23	9	30	20.96	6,745
		Post	23	7	34	20.83	7,037
Motivation Study	Experiment	Pre	35	78	113	95.60	9,595
		Post	35	86	118	99.17	9.269
	Control	Pre	23	72	118	97.26	12.196
		Post	23	70	120	97.91	12,699

Based on the data above, it can be concluded that the distribution of *pre-test* and *post-test* data that is In *the pre-test* of physical fitness, the experimental group obtained a minimum score of 10, a maximum of 39, a mean of 21.77, and a standard deviation of 8.303. And *The post-test* physical fitness of the experimental group obtained a minimum score of 12, maximum 39, mean 23.49, and standard deviation 7.849. For *The pre-test* physical fitness of the control group obtained a minimum score of 9, maximum 30, mean 20.96, and standard deviation 6.745. *The post-test* physical fitness of the control group obtained a minimum score of 7, maximum 34, mean 20.83, and standard deviation 7.037 .

In *the pre-test*, the experimental group's motivation obtained a minimum score of 78, a maximum of 113, a mean of 95.60, and a standard deviation of 9.595. And *The post-test* motivation of the experimental group obtained a minimum score of 86, a maximum of 118, a mean of 99.17, and a standard deviation of 9.269. For *The pre-test* motivation of the control group obtained a minimum score of 72, a maximum of 118, a mean of 97.26, and a standard

deviation of 12.196. And *The post-test* motivation of the control group obtained a *minimum* score of 70, a *maximum* of 120, a *mean* of 97.91, and a standard deviation of 12.699.

## 2. Data analysis

Group		Test	Kolmogorov- Smirnov <sup>a</sup>	
			Sig.	Conclusion
Fitness Physical	Experiment	Pre	0.143	Normal
		Post	0.200	Normal
	Control	Pre	0.129	Normal
		Post	0.200	Normal
Motivation Study	Experiment	Pre	0.119	Normal
		Post	0.200	Normal
	Control	Pre	0.200	Normal
		Post	0.200	Normal

Based on table 4.2, all Sig *pretest* - *posttest* physical fitness and motivation values of the experimental and control groups show numbers greater than 0.05, which means the data is normally distributed.

## 3. Test Hypothesis

Process and analyze data statistically to test hypotheses using the *Paired Sample t Test* and *Independent Sample t Test* .

### a. Sample T Test similar

Group		Sig. (2-tailed)	Conclusion
Physical Fitness	Experiment (Pre-Post)	0.001	Significant
	Control (Pre-Post)	0.846	Not Significant
Motivation	Experiment (Pre-Post)	0.000	Significant
	Control (Pre-Post)	0.070	Not Significant

Based on table 4.3, it can be seen that the results of the physical fitness test in the experimental group ( *Pre-Post* ) produced a Sig. (2-tailed) of 0.001 from the analysis of *pretest* and *posttest data* which is smaller than the significance level of 0.05 so it is concluded that Ha

is accepted and  $H_0$  is rejected which means there is a significant influence from the provision of treatment. The control group (Pre-Post) produced a Sig. (2-tailed) value of 0.846 from the analysis of *pretest* and *posttest data* which is greater than the significance level of 0.05 so it is concluded that  $H_0$  is accepted and  $H_a$  is rejected which means there is no influence from the provision of treatment .

**b. Sample T Test different**

Group	Aspect		Levene's Test for Equality of Variances	t-test for Equality of Means
			Sig.	Sig. (2-tailed)
Physical Fitness	Posttest Value	Equal variances assumed	0.363	0.194
		Equal variances not assumed		0.185
Motivation	Posttest Value	Equal variances assumed	0.232	0.664
		Equal variances not assumed		0.685

Based on the output of the *Independent Sample t Test* in the *Equal variances assumed section* , the Sig. (2-tailed) value is  $0.194 > 0.05$  in the physical fitness aspect and  $0.664 > 0.05$  in the learning motivation aspect, it can be concluded that  $H_a$  is rejected and  $H_0$  is accepted, which means that there is no significant difference between the average physical fitness and learning motivation in the experimental group and the control group.

**DISCUSSION**

The test results from different samples in table 4.4 concluded that there was no significant difference between the control and experimental classes in both the average physical fitness and learning motivation of students. The results of the test of similar samples in table 4.3, the experimental class showed that there was a significant influence from the provision of treatment, but in the control group it was shown that there was no significant influence on increasing physical fitness and learning motivation of students. The test results from different samples concluded that there was no significant difference between the control and experimental classes in both physical fitness and learning motivation of students.

These results also show that the application of the play method can be used to improve physical fitness and learning motivation of students in PJOK learning. This study is in line with

the study conducted by (Beauty et al., 2020) entitled "The Effect of the Circuit Game Learning Model on Improving Physical Fitness and Student Learning Motivation in PJOK Learning" with the results of the *paired sample t-test* of the experimental group showed a significant effect on physical fitness with a significance of 0.000 and an increase of 11% and learning motivation had a significance of 0.000 with an increase of 10%. Thus, it is concluded that from this study that the learning method can improve physical fitness and learning motivation. Results study This almost The same with study by (Utomo & Harwanto, 2021) entitled " Implementation of Game Traditional in Effort Increase Fitness Physical on Student Physical Education Class of 2019 PGRI Adi University Buana Surabaya" with results There are results of the influence of the application of traditional games in efforts to improve physical fitness in physical education students of the 2019 intake of Universitas PGRI Adi Buana Surabaya and the application of traditional games has a good influence on improving physical fitness in physical education students.

Based on all the data that has been obtained and processed using SPSS 29.0.2.0, it can be said that by implementing the play method in PJOK learning, it can improve physical fitness and learning motivation of students.

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## **REFERENCE**

- Agustini, I. P., Tomi, A., & Sudjana, I. N. (2016). Peningkatan Keterampilan Gerak Dasar Lokomotor Menggunakan Metode Bermain dalam Pembelajaran Pendidikan Jasmani Siswa Kelas III C SDN Krian 3 Kabupaten Sidoarjo. *Jurnal Pendidikan Jasmani*, 26(2), 229–237.
- Bangun, S. Y. (2016). Peran Pendidikan Jasmani dan Olahraga pada Lembaga Pendidikan di Indonesia. *Jurnal Publikasi Pendidikan*, 6(3), 167. <https://doi.org/10.26858/publikan.v6i3.2270>
- Beauty, T. R. C., Nurhasan, & Tuasikal, A. R. S. (2020). Pengaruh Model Pembelajaran Permainan Sirkuit terhadap Peningkatan Kebugaran Jasmani dan Motivasi Belajar Siswa dalam Pembelajaran PJOK. *Jurnal Ilmiah Mandala Education*, 6(2), 499–507. <https://doi.org/10.58258/jime.v6i2.1499>

- Erfan, M. (2017). Peran Guru Penjas terhadap Kebugaran (Kesegaran) Jasmani Siswa. *Prosiding Seminar Nasional Profesionalisme Tenaga Profesi PJOK*, 170–178.
- Guarango, P. M. (2022). *Minat Siswa Kelas VIII dalam Mengikuti Pembelajaran PJOK di SMPN 10 Tualang*. Universitas Islam Riau.
- Gunardi, A., Anriani, N., & Ariestika, E. (2023). *Evaluation of the Implementation of the Micro Teaching Program for Students of the Physical Education Health and Recreation Study Program FKIP Primagraha University*. 4(2), 297–307.
- Hafni Sahir, S. (2022). *Buku ini di tulis oleh Dosen Universitas Medan Area Hak Cipta di Lindungi oleh Undang-Undang Telah di Deposit ke Repository UMA pada tanggal 27 Januari 2022* (T. Koryati (ed.)). KBM Indonesia. [https://repositori.uma.ac.id/jspui/bitstream/123456789/16455/1/E-Book Metodologi Penelitian Syafrida.pdf](https://repositori.uma.ac.id/jspui/bitstream/123456789/16455/1/E-Book%20Metodologi%20Penelitian%20Syafri%20.pdf)
- Hartanto, M. B., & Bachtiar, W. B. (2018). Upaya Meningkatkan Kesegaran Jasmani Melalui Pendekatan Bermain dalam Pembelajaran Pendidikan Jasmani Kelas X SMA Negeri 1 Cianjur. *Jurnal Maenpo : Jurnal Pendidikan Jasmani Kesehatan Dan Rekreasi*, 8(1), 37. <https://doi.org/10.35194/jm.v8i1.917>
- Khija, R., Uttoh, L., & Tarishi, M. K. (2015). Teknik Pengambilan Sampel. *Ekp*, 13(3), 1576–1580.
- Matondang, Z. (2014). Validitas dan Reliabilitas Suatu Instrumen Penelitian. *Jurnal Tabularasa PPS Unimed*, 6(1), 1510–1515. <https://doi.org/10.4028/www.scientific.net/AMM.496-500.1510>
- Nurjanah, S. ., Ghalib, N. ., Putri, W., & Anira. (2014). Agility Profile of Phase C Students Participating in Futsal Extracurricular Activities at SDN 053 Cisitu Bandung City. *Penambahan Natrium Benzoat Dan Kalium Sorbat (Antiinversi) Dan Kecepatan Pengadukan Sebagai Upaya Penghambatan Reaksi Inversi Pada Nira Tebu*, 4(3), 339–346.
- Nurjaya, D. R., & Mulyana, D. (2010). Mengembangkan Perilaku Asosiatif Siswa SD Melalui Penerapan Pendekatan Bermain dalam Konteks Pembelajaran Penjas. *Jurnal Pendidikan Jasmani Dan Olahraga*, 2(1), 52–61.
- Prakosa, T. K. W., & Hartati, S. C. Y. (2022). Peningkatan Kebugaran Jasmani Siswa Melalui Aktivitas Fisik Ringan dalam Pembelajaran Pjok. *Jurnal Pendidikan Olahraga*, 5(2), 39. <https://doi.org/10.31602/rjpo.v5i2.7818>
- Pratama, M. ., Budiana, D., & Wibowo, R. (2024). *The Relationship Between Self-Efficacy and Physical Education Learning Outcomes in Elementary School*. 4(3), 451–459.
- Rohmah, M. ., Wicaksono, L., Kurniawan, C., & Priyono, D. (2014). Implementation Of The Problem Based Learning (Pbl) Learning Model In The Subject Of Physical Education, Sports And Health (PJOK) At SD Negeri 1 Lanbaw, Gisting District, Tanggamus District. *Penambahan Natrium Benzoat Dan Kalium Sorbat (Antiinversi) Dan Kecepatan Pengadukan Sebagai Upaya Penghambatan Reaksi Inversi Pada Nira Tebu*, 5(1), 9–16.
- Utari, A. . D., Haetami, M., & Hidasari, P. F. (2017). Tingkat Kebugaran Jasmani Peserta Didik

Kelas IX Negeri 7 Pontianak. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.

Utomo, G. M., & Harwanto. (2021). Jurnal Kejaora : Jurnal Kesehatan Jasmani dan Olah Raga. *Jurnal Kesehatan Jasmani Dan Olah Raga*, 6(1), 197–202.

Y, P., & Sudarso. (2014). Application of Ball Modifications in Basketball Dribble Learning on Student Motivation at SD Negeri Medaeng II Sidoarjo. *Penambahan Natrium Benzoat Dan Kalium Sorbat (Antiinversi) Dan Kecepatan Pengadukan Sebagai Upaya Penghambatan Reaksi Inversi Pada Nira Tebu*, 5(1), 67–75.

Yane, S. (2018). Penerapan Metode Bermain dan Modifikasi Media Pelajaran Pendidikan Jasmani Olahraga dan Kesehatan Materi Permainan Sofbol Siswa Sekolah Dasar. *Jurnal Pendidikan Olahraga*, 07, 120–129. <https://doi.org/10.3157/jpo.v7i2.1168>

Ziftahni Rachma Sukarna, Didin Budiman, & Wulandari Putri. (2023). Development of Student Confidence Through Traditional Game Activities. *Jurnal Pendidikan Jasmani (JPJ)*, 4(2), 221–228. <https://doi.org/10.55081/jpj.v4i2.1407>