

**IMPROVING THE PHYSICAL FITNESS OF CLASS VIII
STUDENTS THROUGH VOLLEYBALL AT STUDENTS OF SMP
NEGERI 36 SURABAYA**

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ABSTRAK: Penelitian ini berdasarkan hasil observasi di SMP Negeri 36 Surabaya ternyata masih terdapat kendala dalam hal kebugaran jasmani siswa. Kendala yang ditemukan adalah sebagian siswa kurang aktif dibuktikan dengan sedikitnya jumlah siswa yang mengikuti kegiatan pembelajaran bola voli. Dan ada juga beberapa siswa yang mudah mengalami kelelahan selama proses pembelajaran olahraga di sekolah. Tujuan penelitian ini adalah untuk meningkatkan kebugaran jasmani siswa kelas VIII melalui permainan bola voli. Metode yang digunakan dalam penelitian ini adalah deskriptif kuantitatif. Metode penelitian kuantitatif digunakan untuk meneliti populasi atau sampel tertentu, teknik pengambilan sampel pada umumnya dilakukan secara acak, pengumpulan data menggunakan instrumen penelitian, analisis data bersifat kuantitatif/statistik dengan tujuan menguji hipotesis yang telah ditentukan keadaan siswa pada SMP Negeri 36 Surabaya sebelum pandemi sangat giat belajar olahraga, sangat antusias. Berdasarkan hasil analisis pengolahan data pada bab IV, sig. (2-tailed) pada kelompok eksperimen yaitu sebesar 0,000, sehingga sig. (2-tailed) pada kelompok eksperimen 0,05 dapat dinyatakan bahwa bermain bola voli berpengaruh terhadap peningkatan kebugaran jasmani pada siswa kelas VIII SMP Negeri 36 Surabaya.

Kata kunci : Kebugaran Jasmani; Bola Voli.

ABSTRACT: *This research is based on the results of observations at SMP Negeri 36 Surabaya, it turns out that there are still obstacles in terms of students' physical fitness. The obstacle found was that some students were less active as evidenced by the small number of students participating in volleyball learning activities. And there are also some students who easily experience fatigue during the sports learning process at school. The purpose of this study was to improve the physical fitness of class VIII students through playing volleyball. The method used in this research is descriptive quantitative. Quantitative research methods are used to examine certain populations or samples, sampling techniques are generally carried out randomly, data collection uses research instruments, data analysis is quantitative/ statistical in nature with the aim of testing the hypothesis that has been determined the condition of students at SMP Negeri 36 Surabaya before the pandemic was very active in learning sports, very enthusiastic. Based on the results of the analysis of data processing in chapter IV, the sig. (2-tailed) in the experimental group which is equal to 0.000, so the sig. (2-tailed) in the experimental group 0.05, it can be stated that playing volleyball has an effect on increasing physical fitness in class VIII students of SMP Negeri 36 Surabaya.*

Keywords: *Physical Fitness; Volleyball.*

INTRODUCTION

Physical education is education that involves physical activity in order to acquire physical abilities and skills. However, the development of increasingly sophisticated technology has caused several elements of life to shift. Physical education is considered the most appropriate subject to get out of the current situation. The material conveyed by the teacher through movement activities will force students to be separated from various kinds of gadgets. Volleyball is a sport that is popular among Indonesian people, from the lower to the top sports. According to Setia Di (2011 p. 3) volleyball is a team game with a ball as a game tool, how to play this game, namely, by bouncing the ball using the arm or other limb, the ball is hit from square to square, each team only plays maximum of

three times. Volleyball games that have been clearly defined regarding the facilities and infrastructure can still be changed flexibly by see the situation and conditions that exist around the community. As for some basic volleyball techniques, namely (1) Service (serving up and serving down), (2) Passing (Passing Up and Passing down), (3) Smash/Spike, (4) Block. Based on Infodatin, Sports Health Development in Indonesia 2015, physical fitness is the ability of a person's body to carry out daily work without causing significant fatigue. In order to meet his movement needs by enjoying free time and to meet emergency needs, if needed at any time. Referring to the definition of physical fitness above, in general the function of physical fitness is to develop the creative abilities and endurance of every human being which is useful for increasing work power. The elements contained in physical fitness, namely: (1) Speed, (2) Strength, (3) Endurance, (4) Power, (5) Flexibility, (6) Agility, (7) Balance, (8) Accuracy, (9) Reaction, (10) Coordination. Based on the results of observations of researchers in junior high school NEGERI 36 Surabaya, it turns out that there are still obstacles in terms of students' physical fitness. The obstacle found at SMP Negeri 36 Surabaya was that some students were less active, as evidenced by the small number of students participating in volleyball learning activities. And there are also some students of SMP Negeri 36 Surabaya who easily experience fatigue during the sports learning process at school. Fitness like this can be obtained through physical activity that is programmed systematically and regularly. In the early days of the pandemic, government policies in the education sector required online learning or distance learning as one of the government's efforts to reduce the spread of Covid-19. Sports and Health Physical Education also conducts online learning. Good physical fitness is very influential on student learning activities. So that students will be more enthusiastic in participating in the learning process and are always ready to accept the material that will be given by the teacher. With the emergence of these problems, the researcher wanted to research "Improving the Physical Fitness of Grade VII Students through Volleyball Games for Students of SMP Negeri 36 Surabaya".

RESEARCH METHODS

The method used in this research is descriptive quantitative. Quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to examine certain populations or samples, sampling techniques are generally carried out randomly, data collection uses research instruments, data analysis is quantitative/statistical in nature with the aim of testing hypotheses that are has been established. Data collection techniques are the most strategic steps in research, because the main purpose of research is to obtain data. This data collection technique uses several tests from the physical fitness test, namely TKJI. The Indonesian Physical Fitness Test (TKJI) is a benchmark for measuring the level of physical fitness in the form of a series of points explanations:

A. Sprint 60 meters

- 1) Stand behind the starting line
- 2) On the ready signal, stand with one toe close to the start line

- 3) The signal is ready; the starting position is standing ready to run
- 4) On signal, run as fast as possible to the finish line (covering a distance of 30m)

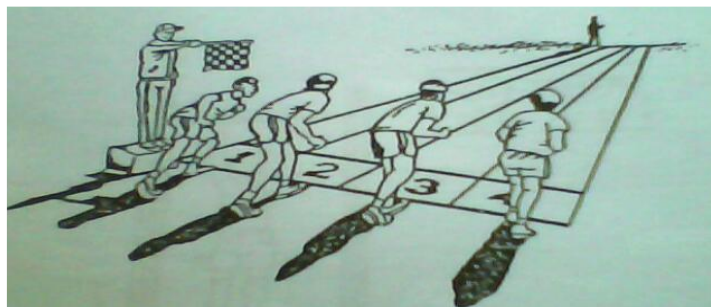


Figure 1 Sprint 60 meters
Source: (Joko Pekik, 2018)

B. Sit-ups 60 seconds

Lie on your back on the floor and both knees bent at a 90-degree angle. Place both hands behind the head or in a crossed position in front of the chest. Lift your head and shoulders off the floor until your arms touch your thighs, paying attention to your buttocks and legs, don't lift them too.

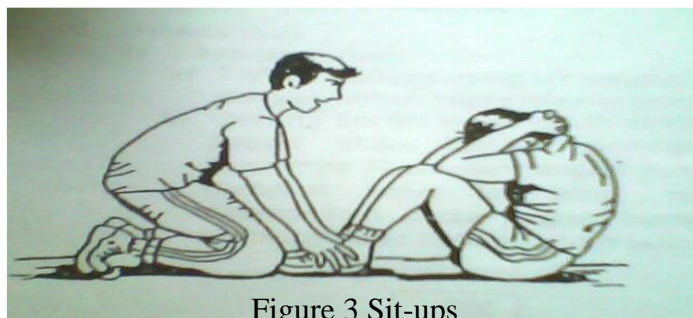


Figure 3 Sit-ups
Source: (Joko Pekik, 2018)

C. Push-ups 30 seconds

1. Stand in front of a wall or a flat wall.
2. Place your palms on the wall.
3. Push-ups are done by bending the arms so that the body moves forward.
4. Straighten your arms again. Repeat this movement several times.

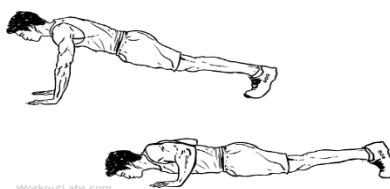


Figure 3 Push-ups
Source: (Joko Pekik, 2018)

Lari 60 meter	Push-up 60 Detik	Sit-up 60 detik	Nilai
s/d-6.7 detik	16 kali ke atas	16 kali ke atas	5
6.8 s/d 7.5 detik	12-15 kali	12-15 kali	4
7.6 s/d 8.3 detik	06-11 kali	06-11 kali	3
8.4 s/d 9.6 detik	02-05 kali	02-06 kali	2
9.7-dst	00-01 kali	00-01 kali	1

Table 1 Value of Physical Fitness for Men Age 13-15 Years

Data analysis can be done in two ways, namely statistical analysis and non-statistical analysis. In this study using statistical analysis methods, the objective of this study will be guaranteed. In quantitative data obtained from the results of the initial test and also the final test. Quantitative data processing is carried out using statistical tests on the initial and post-test data values. The collected data were then analysed using the Statistical Product and Service Solution (SPSS) version 21 for Windows.

RESEARCH RESULT

The description of the data from the research results aims to provide an overview of the distribution of data. The data presented after being processed from raw data using SPSS 2.1.

Table 2 Results of Pertest Data Conducting the TKJI Test for the Experiment Group

No	Nama Siswa	Lari 60 Meter	Sit-Up 60 Detik	Push-Up 60 Detik	Hasil Penilaian Akhir
1	Adrian	08:16	26	21	10
2	Achmad	08:24	21	19	10
3	Bagas	07:41	29	24	11
4	Dio	09:32	31	18	10
5	Viky	07:24	28	25	11
6	Diki	08:13	25	16	10
7	Doni	09:07	31	23	10
8	Dhani	09:48	24	20	10
9	Vikri	07:05	27	26	10
10	Candra	09:16	15	16	8
11	Fandy	08:25	28	21	10
12	Wahyu	08:34	21	27	10
13	Chiko	07:26	29	23	11
14	Lukman	09:48	18	19	8
15	Dimas	09:19	19	19	8
16	Sahrul	09:14	17	19	8
17	Miko	07:37	26	24	11
18	Dayat	09:45	19	18	8
19	Bintang	07:16	24	26	10
20	Bimo	07:19	29	28	11
21	Farid	07:16	31	28	11
22	Fahmi	09:24	18	20	8
23	Reno	09:41	19	16	8
24	Ridho	07:32	29	31	11
25	Satriya	09:24	20	16	8
26	Davin	09:13	16	19	8

Table 3 Post-test Data Results for the TKJI Test for the Experiment Group

No	Nama Siswa	Lari 60 Meter	Sit-Up 60 Detik	Push-Up 60 Detik	Hasil Penilai Akhir
1	Adrian	07:49	32	23	11
2	Achmad	07:51	26	22	11
3	Bagas	07:26	34	26	12
4	Dio	08:57	34	22	11
5	Viky	07:03	31	29	12
6	Diki	07:39	27	21	11
7	Doni	08:16	34	26	11
8	Dhani	09:13	29	23	10
9	Vikri	07:19	31	29	11
10	Candra	08:54	25	23	9
11	Fandy	07:41	32	25	11
12	Wahyu	08:20	24	28	10
13	Chiko	07:02	32	24	12
14	Lukman	09:20	23	22	9
15	Dimas	08:31	24	23	9
16	Sahrul	07:38	23	21	9
17	Miko	07:21	30	26	11
18	Dayat	07:36	23	21	9
19	Bintang	07:08	27	28	11
20	Bimo	06:19	34	31	12
21	Farid	07:03	36	29	12
22	Fahmi	07:36	22	24	9
23	Reno	09:28	26	19	8

Table 4 Descriptive Test

	N	Minimum	Maximum	Mean	Std. Deviation
Pre_test_eksperimen	30	8.00	11.00	9.5333	1.25212
Post_test_eksperimen	30	8.00	12.00	10.2667	1.38796
Valid N (listwise)	30				

Based on table 4, it can be explained that the value of the number of samples is 30. The mean value in the pre-test experimental group is 9.5333, the post-test in the experimental group is 10.2667.

Table 5 Normality Test

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre_test_eks	.913	10	.200 [*]	.938	10	.925
Post_test_eks	.548	10	.200 [*]	.931	10	.375

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Based on Table 5, it can be explained that the value of the number of samples is 30. The sig value in the pre-test experimental group is 925, the post-test in the experimental group is 375. The value of the probability or significant number shows > 0.05, so the data distribution is normal.

Table 6 Homogeneity Test

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Pre_test_eksperimen	.214	1	28	.280
Post_test_eksperimen	.332	1	28	.569

Based on table 6, it is known that the Levene statistic value for the pretest experimental group is 214, the posttest for the experimental group is 332 and the sig value for the pretest experimental group is 280, the posttest for the experimental group is 569 > 0.05, then Ho is accepted so that it can be concluded that the data has variance the same or in other words homogeneous.

Table 7 Test T-test

Paired Samples Test

		Paired Differences				T	df	Sig. (2-tailed)	
				95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
P	Pretest	-.73	.449	.0821	-.90	-.565	8.93	29	.000
ai	Posste	333	78	2	128	38	0		
r	s								
l	Kelom								
	pok								
	Eksper								
	imen								

Based on the data table 7 it is known that the sig. (2-tailed) in the experimental group which is equal to 0.000, so the sig. (2-tailed) in the experimental group > 0.05, it can be stated that playing volleyball has an effect on increasing physical fitness in class VIII students of SMP Negeri 36 Surabaya. It can be seen from the results of the sig. (2-tailed) experimental group whose results were below the significance level of 0.05, which means there was an increase after being given a volleyball game, so that there was an effect of volleyball games on increasing the physical fitness of class VIII students of SMP Negeri 36 Surabaya. So that the research entitled Improving the physical fitness of class VIII students through volleyball games for SMP Negeri 36 Surabaya students can be used as PJOK teachers to serve as a reference or guide in providing training programs or materials specially to improve physical fitness because volleyball games have been proven to improve physical fitness in students of SMP Negeri 36 Surabaya. Penelitian yang dilakukan dengan jenis penelitian tindakan kelas (PTK).

DISCUSSION

Before the pandemic period, the implementation of teaching and learning was focused on practical sports activities in the field. Because one of the goals is that students

have sports skills according to the subject being carried out. The condition of SMP Negeri 36 Surabaya students before the pandemic was very active in learning sports, very enthusiastic. And after the pandemic, the students were even more enthusiastic because during the pandemic, students only did online learning and it was very boring for junior high school students. But that's only a few students. And the rest have difficulty learning face-to-face sports. And there are also some students of SMP Negeri 36 Surabaya who easily experience fatigue during the sports learning process at school. The role of the Physical Education teacher is no less important in directing students in every learning and extracurricular activity is very much needed, so that the goal of doing sports activities (physical activity) can be achieved. Good physical fitness greatly influences student learning activities. So that students will be more enthusiastic in participating in the learning process and are always ready to accept the material that will be given by the teacher.

CONCLUSIONS

Based on the results of the analysis of data processing in chapter IV, the sig. (2-tailed) in the experimental group which is equal to 0.000, so the sig. (2-tailed) in the experimental group > 0.05 , it can be stated that playing volleyball has an effect on increasing physical fitness in class VIII students of SMP Negeri 36 Surabaya. It can be seen from the results of the sig. (2-tailed) experimental group whose results were below the significance level of 0.05, which means that there was an increase after being given a game of volleyball from the results of the description above, the researcher can conclude as follows: There is an effect of increasing the physical fitness of class VIII students through playing volleyball in students of SMP Negeri 36 Surabaya. Therefore, based on the results of this study, the authors propose the following suggestions: For PJOK teachers to always look for objective information about factors that can improve physical fitness because physical fitness plays an important role in the learning process at school and in everyday life. For students, students are expected to increase volleyball game practice so that their level of physical fitness gets better and maximum. Try to practice alone to improve physical fitness so that all learning activities at school and at home can be carried out properly. For other researchers, future researchers are expected to carry out further testing with other subjects, for example in elementary and high school/vocational school student participants. the selection of statistical analysis methods and the type of research used must be relevant, so that the selection of statistical analysis methods and the type of research used can produce valid results.

REFERENCES

Ahmadi, Abu dan Supriyono, Widodo. 2013. *Psikologi Belajar*. Jakarta: PT Rineka Cipta

- Ali Maksum. (2012). *Metodologi Penelitian dalam Olahraga*. Surabaya: UNESA University Press.
- Arikunto, S. (2019). *Prosedur Penelitian Suatu Pendekatan Praktik*, Aneka Cipta.
- Budiwanto, S. 2012. *Metodologi Latihan Olahraga*. Malang: Fakultas Ilmu Keolahragaan Universitas Negeri Malang.
- Douglas, Hartmann., Christina, Kwauk. (2011). *Sport and development: An overview, critique, and reconstruction*. *Journal of Sport and Social Issues* 35(3) 284 –305.
- Gibney, Michael J., Margetts, Barrie M., Kearney, John M., dan Arab, Lenore. 2015. *Public Health Nutrition*. Oxford. CV EGC Medical Publisher
- Giriwijoyo, S dan Sidik, D.Z. 2012. *Ilmu Kesehatan Olahraga*. Bandung: Remaja Rosdakarya.
- Ghozali, Imam. 2018. *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25*. Badan Penerbit Universitas Diponegoro: Semarang
- Irawadi, Hendri. (2013). *Kondisi Fisik dan Pengukurannya*. Padang: FIK UNP
- Jane, E. Ruseski., Brad, R. Humphreys., Kirstin, Hallman., Pamela, Wicker., and Christoph, Breuer. (2014). *Sport participation and subjective well-being: Instrumental variable results from German survey data*. *Journal of Physical Activity and Health*. Human Kinetics, Inc. pp.396-403.
- Kemendiknas. (2010). *Tes Kesegaran Jasmani Indonesia*. Jakarta: Pusat.
- Rahmayanti, Putu Sita. 2018. *Gambaran Status Gizi Tingkat Kebugaran Jasmani dan Prestasi Belajar*
- Rosdiani, Dini. (2013). *Model Pembelajaran Langsung Dalam Pendidikan Jasmani dan Kesehatan*. Bandung: Alfabeta.
- Setiadi. Bambang. (2011). *Permainan Bola Voli, Sejarah, Teknik, Taktik Fisik dan Peraturan*. Bandung: Gotong Royong.
- Suleyman, Yildiz. (2012). *Instruments for measuring service quality in sport and physical activity services*. *Coll. Antropol.* 36 2: 689–696.
- Setiadi. Bambang. (2011). *Permainan Bola Voli, Sejarah, Teknik, Taktik Fisik dan Peraturan*. Bandung: Gotong Royong.
- Sugiyono. 2010. *Metode Penelitian Pendidikan Pendekatan Kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, CV.
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