

# The Difference in the Effectiveness of Physical Education, Sports and Health Learning during the Covid-19 Quarantine

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**Abstract.** Covid-19 is a deadly virus that attacks the human respiratory system and can be transmitted through saliva splashes. The Indonesian Ministry of Education issued a circular letter from the Minister of Education and Culture No. 4 of 2020 concerning the Implementation of Policy and Education in the Emergency Period of the Spread of Corona Virus Disease (Covid-19) by dismissing and replacing the Teaching and Learning Activities (KBM) process in schools by using an online system (online). This research is a comparative descriptive study. Research population i.e. all class XI students in high schools and vocational schools throughout the Nogosari district, for high school students totaling 130 students, and vocational students totaling 150 students, so the total sample is 280. Research results indicator learning conditions there are high school students included in the effective category, indicators of learning methods SMA students are included in the quite effective category, indicators of learning outcomes for SMA students are in the quite effective category 2) indicators of learning conditions for SMK students are in the quite effective category, indicators of learning methods for SMK students are in the quite effective category, indicators of learning outcomes for SMK students are in the moderate category effective.

**Key words:** effectiveness, sports education, covid-19

**Abstract in Indonesia.** Covid-19 adalah virus mematikan yang menyerang sistem pernapasan manusia dan dapat menular melalui percikan air liur. Kementerian pendidikan Indonesia mengeluarkan surat edaran mendikbud No. 4 Tahun 2020 tentang Pelaksanaan Kebijakan dan Pendidikan Dalam Masa Darurat Penyebaran Corona Virus Disease (Covid-19) dengan meliburkan dan mengganti proses Kegiatan Belajar Mengajar (KBM) di sekolah dengan menggunakan sistem dalam jaringan (daring). Penelitian ini merupakan penelitian deskriptif komparatif. Populasi penelitian yaitu seluruh siswa kelas XI di SMA dan SMK se-kecamatan Nogosari, untuk siswa SMA berjumlah 130 siswa, dan siswa SMK berjumlah 150 siswa, jadi total sampel 280 siswa. Hasil Penelitian indikator kondisi pembelajaran ada mahasiswa SMA termasuk dalam kategori efektif, indikator metode pembelajaran siswa SMA termasuk dalam kategori cukup efektif, indikator hasil pembelajaran siswa SMA berada pada kategori cukup efektif 2) indikator kondisi pembelajaran pada mahasiswa SMK dalam kategori cukup efektif, indikator metode pembelajaran siswa SMK dalam kategori cukup efektif, indikator hasil pembelajaran siswa SMK berada pada kategori cukup efektif.

**Kata Kunci:** efektivitas, pembelajaran PJOK, covid-19

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## INTRODUCTION

Indonesia entered AFTA 2003 and APEC 2010 which demanded the readiness of human resources to compete and become winners in global competition. The world is currently faced with the corona virus or Corona Virus Disease 2019 (Covid-19) which first spread in December 2019 from the city of Wuhan, China. Covid-19 is a deadly virus that attacks the human respiratory system and can be transmitted through saliva splashes. The Indonesian Ministry of Education issued a circular letter of the Minister of Education and Culture No. 4 of 2020 concerning the Implementation of Policy and Education in the Emergency Period of the Spread of Corona Virus Disease (Covid-19) by closing and replacing the process of Teaching and Learning Activities (KBM) in schools using an online system. The learning process can run well with information technology that has developed rapidly including E-learning, Google Class, Whatsapp, Zoom, Meet and other information media and internet networks that can connect teachers and students so that the process of teaching and learning activities can run well so that

learning objectives remain achieved. Based on a survey conducted by researchers, most secondary school teachers use the Whatsapp, Google Classroom and Google Form applications.

Sports and Health Physical Education (PJOK) is a subject with many physical activities such as running, throwing, hitting, and jumping. Before the Covid-19 pandemic, learning was mostly carried out outside the classroom or outside school for schools that did not have a field. After the pandemic, the implementation of physical education and sports learning has changed to online learning that cannot be carried out carelessly outdoors without complying with health protocols set by the government.

Based on observations made by researchers, online learning media used in public high schools and vocational schools in Nogosari sub-district are Zoom, Google Meet, Google Form, and Whatsapp applications. There are several obstacles and benefits of some of these applications, for obstacles including the problem of unstable internet connections in each student's area, causing obstacles in the delivery of material during teaching and learning activities, lack of socialization in advance by teachers to students in using applications, there are some students who do not understand how to present the results into presentations in certain applications, Another obstacle is the limited internet quota provided, because some applications consume quite a lot of internet data, so that the internet quota provided by the government is insufficient for a long period of time, so students have to pay additional costs to be able to follow learning, another obstacle is the mobile phone owned by students, some students have mobile phones with less large internal storage so that students cannot Save or download the material given by the teacher, sometimes students also have to delete some old material to save new material because of the full storage of mobile phones to store material. The obstacle that students complain about is that there are too many tasks given with the delivery of material that is calculated to be lacking by the teacher, thus making students not really understand the material but must still collect the assignments given by the teacher. Therefore, the implementation of online sports and health physical education learning activities needs to be known for their effectiveness so that they can be evaluated to find and find clear corrective steps to be ready to face the new normal era. This is what underlies the researchers to find out the difference in the effectiveness of the implementation of physical education, sports and health learning between high school students and SMK Negeri in Nogosari sub-district.

According to research conducted by Sari (2020) "In the results of research on students' understanding of learning materials provided through online learning from 124 students as research subjects, 67% of students only felt the benefits of implementing online learning which involved skill assessment, the remaining 25% felt physical benefits, and 8% did not feel the benefits at all from practicing skills in PJOK learning which was carried out online. Although students did not feel the benefits of physical means, as many as 62% of students rated learning as effective, while 37% rated learning less effective, and 1% of students rated learning as ineffective.

According to Setiawan (2021), research results were obtained on applications that are often used in online learning during the pandemic from 192 students. As many as 79.7% use Whatsapp media, 9.4% use Google Classroom, and as many as 5.2% use both applications, and 5.7% use Zoom. According to Venice (2020), from the results of this research, the results of online learning still need to be improved. Student motivation is still low in participating in learning and needs to be improved, teaching materials, implementation and evaluation need to be made better and more interesting, and existing problems need to be overcome immediately and find the best solution.

The formulation of the problem proposed in the study is how effective is the learning effectiveness of physical sports and health education between high schools and state vocational schools in Nogosari sub-district?". The purpose of this study was to determine the level of effectiveness of physical education, sports and health education learning between SMA and SMK Negeri in Nogosari sub-district in online learning.

## **METHODS**

This study is a comparative descriptive study which means it examines the population in the form of comparison. The research was conducted on January 20-22, 2022 at Senior High Schools and State Vocational High Schools in Nogosari sub-district. This study used Purposive sampling technique, which is a sampling technique with certain considerations. The samples used in this study are independent samples, namely samples that are not related to one another. For the study population, namely all grade XI students in high schools and vocational schools in Nogosari sub-district, for high school students

there are 130 students, and vocational students are 150 students, so the total sample is 280 students. To get the desired data, the researcher uses a way to collect data through filling out questionnaires or questionnaires that have been provided by researchers through Google form. Data analysis techniques in this study use descriptive statistical analysis which aims to explain the data of the object of research. In this type of quantitative research, descriptive analysis is arranged into the form of tables, curves, or diagrams as basic material to be explained narratively and descriptively. The data will be calculated using the help of the SPSS application.

## RESULTS AND DISCUSSION

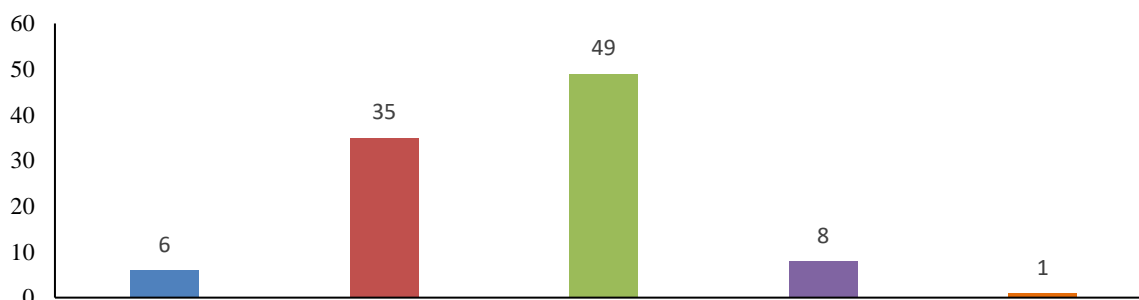
### Results and Discussion

From the results of statistical calculations of 280 respondents obtained, average (mean) = 99.45; median=100; mode=102; Standard deviation=8.283, lowest value= 76, and highest value 131.

The table of data distribution of the effectiveness of physical education learning in sports and health during the PPKM period between high school and vocational students in Nogosari sub-district:

**Table 1.** Frequency Distribution of Learning Effectiveness

No	Interval	Category	Frequency	%
1	$X < 87$	Very Ineffective	18	6
2	$87 < X \leq 98$	Ineffective	99	35
3	$98 < X \leq 109$	Quite effective	138	49
4	$109 < X \leq 120$	Effective	22	8
5	$> 120$	Highly effective	3	1
Sum			280	100



**Figure 1.** Learning Effectiveness

Based on the results of research from the 280 respondents, it can be concluded that the effectiveness of physical education, sports and health learning during the PPKM period between high school and vocational students in Nogosari sub-district is in the category of quite effective. The results of the study The difference in the effectiveness of physical education learning in sports and health during the PPKM period between high school and vocational students in Nogosari sub-district is influenced by 3 factors, namely learning conditions, learning methods and learning outcomes which are described as follows.

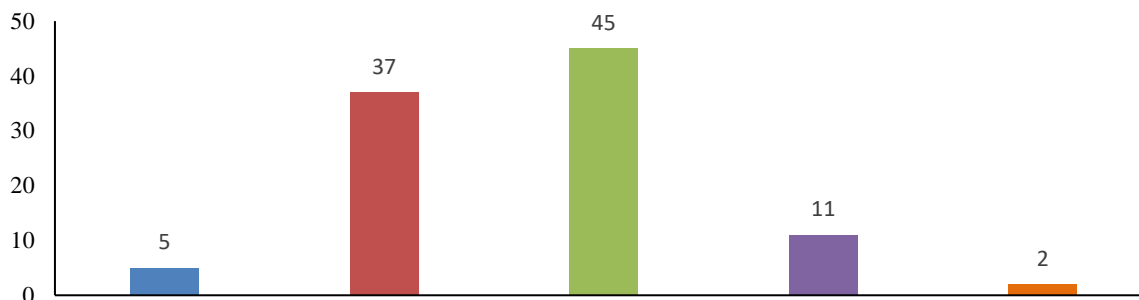
### High School (SMA)

The results of this study aim to determine the effectiveness of physical education learning in sports and health during the PPKM period of high school students in Nogosari District. From the results of statistical calculations of 123 respondents obtained, average (mean) = 99.98; median=100; mode=98; Standard deviation=8.697, lowest value= 76, and highest value 131.

The following is a table of data distribution of the effectiveness of physical education learning in sports and health during the PPKM period for high school students in Nogosari District:

**Table 2.** Frequency Distribution of Manager Services

No	Interval	Category	Frequency	%
1	$X < 87$	Very Ineffective	6	5
2	$87 < X \leq 98$	Ineffective	46	37
3	$98 < X \leq 109$	Quite effective	55	45
4	$109 < X \leq 120$	Effective	14	11
5	$> 120$	Highly effective	2	5
Sum			123	100



**Figure 2.** Learning Effectiveness

Based on the research tables and figures from the 123 respondents, it is known that the Effectiveness of Sports and Health Physical Education Learning During the PPKM Period High School Students in Nogosari District are included in the moderately effective category, namely 45%, the very ineffective category by 5%, the ineffective category by 37%, the effective category by 11% and the very effective 2%.

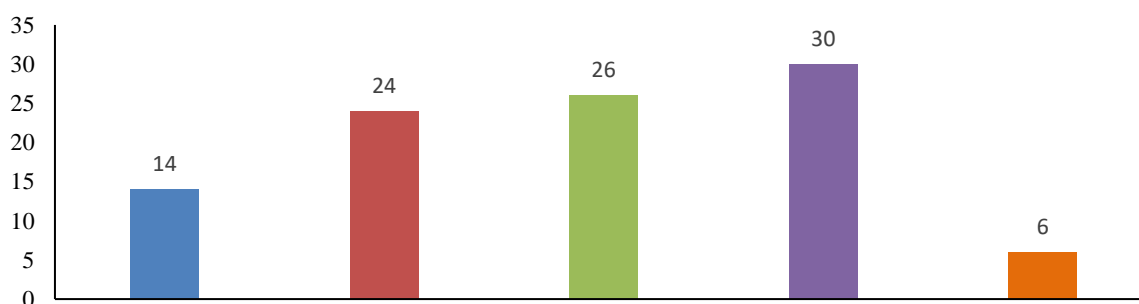
The analysis of indicator data consists of 3 indicators, namely, learning conditions, learning methods and learning outcomes. And each indicator is categorized using reference to 5 norm limits (Widoyoko, 2014), namely, very ineffective, ineffective, quite effective, effective and very effective.

### Learning Conditions

From the calculation results of 123 respondents, learning conditions obtained average (mean) = 21.13, median = 21, mode = 21, standard deviation = 2.891, lowest value = 15, highest value = 28. The data table of the distribution of learning conditions is as follows:

**Table 3.** Frequency Distribution of Learning Conditions

No	Interval	Category	Frequency	%
1	$X < 17,6$	Very Ineffective	17	14
2	$17.6 < X \leq 20.2$	Ineffective	30	24
3	$20.2 < X \leq 22.8$	Quite effective	32	26
4	$22.8 < X \leq 25.4$	Effective	37	30
5	$> 25.4$	Highly Effective	7	6
Sum			123	



**Figure 3.** Learning Conditions Diagram

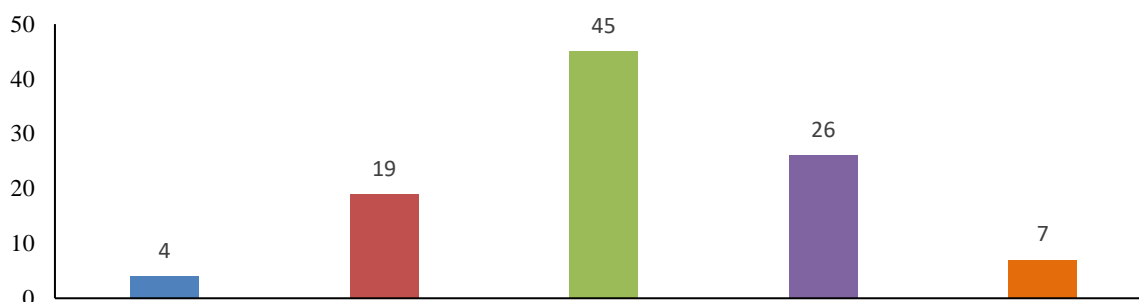
Based on the research tables and figures from the 123 respondents, it is known that High School Learning Conditions are included in the Effective category, which is 30%, the very ineffective category is 14%, the ineffective category is 24%, the category is quite effective 26% and very effective 6%.

### Learning Methods

From the calculation results of 123 respondents, the Learning Method obtained average (mean) = 51.77, median = 53.00, mode = 53, standard deviation = 4.566, lowest value = 38, and highest value = 63 The data table of distribution of Learning Methods is as follows:

**Table 4.** Frequency Distribution of Learning Methods

No	Interval	Category	Frequency	%
1	X<43	Very Ineffective	5	4
2	43<X≤48	Ineffective	23	19
3	48<X≤53	Quite effective	55	45
4	53<X≤58	Effective	32	26
5	>58	Highly Effective	8	7
Sum			123	100



**Figure 4.** Learning Method Diagram

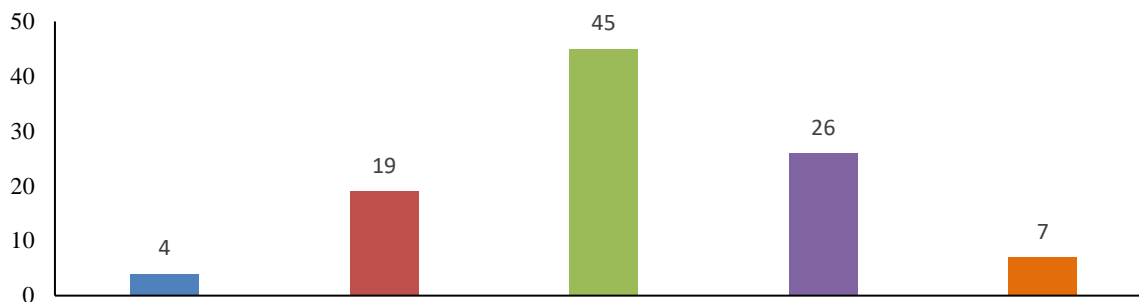
Based on the research tables and figures from the 123 respondents, it is known that the High School Learning Method is included in the Moderately Effective category, which is 45%, the very ineffective category by 4%, the ineffective category by 19%, the effective category by 26% and the very effective 7%.

### Learning Outcomes

The calculation results of 58 respondents, Learning Outcomes obtained average (mean) = 25.41, median = 26.00, mode = 26, standard deviation = 2.820, lowest value = 19, and highest value 33. The Learning Outcomes distribution data table is as follows:

**Table 5.** Frequency Distribution of Learning Outcomes

No	Interval	Category	Frequency	%
1	X<43	Very Ineffective	5	4
2	43<X≤48	Ineffective	23	19
3	48<X≤53	Quite effective	55	45
4	53<X≤58	Effective	32	26
5	>58	Highly Effective	8	7
			123	100



**Figure 5.** Learning Outcomes Diagram

Based on the research tables and figures from the 123 respondents, it is known that the High School Learning Method is included in the Quite Effective category, which is 62%, the very ineffective category by 10%, the ineffective category by 24%, the effective category by 1% and the very effective 4%.

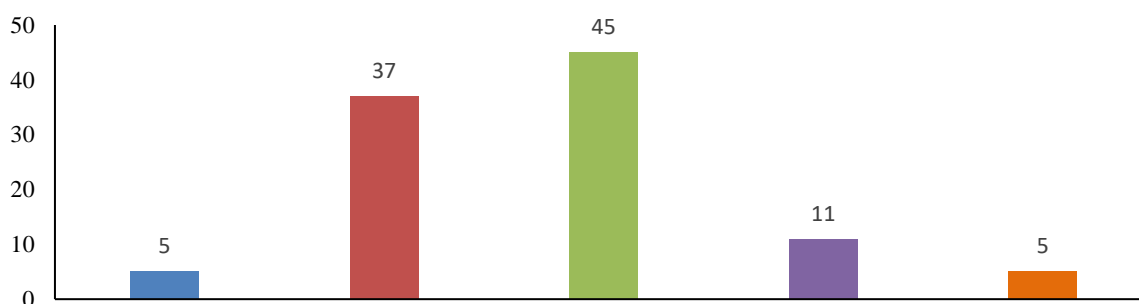
**Vocational High School (SMK)**

The results of this study aim to determine the effectiveness of physical education, sports and health learning during the PPKM period of SMK students in Nogosari District. From the results of statistical calculations of 157 respondents obtained, average (mean) = 99.04; median=100; mode=102; Standard deviation=7.948, lowest value= 76, and highest value 121.

The following is a table of data distribution of the effectiveness of physical education learning in sports and health during the PPKM period for high school students in Nogosari District:

**Table 6.** Frequency Distribution of Management Services

No	Interval	Category	Frequency	%
1	$X < 87$	Very Ineffective	6	5
2	$87 < X \leq 98$	Ineffective	46	37
3	$98 < X \leq 109$	Quite effective	55	45
4	$109 < X \leq 120$	Effective	14	11
5	$> 120$	Highly effective	2	5
Sum			123	100



**Figure 6.** Effectiveness of Vocational Learning

Based on the research tables and figures from 157 respondents, it is known that the effectiveness of sports and health physical education learning during the PPKM period for SMK students in Nogosari sub-district is included in the moderately effective category, namely 39%, the very ineffective category by 4%, the ineffective category by 20%, the effective category by 32% and the very effective 32%.

The analysis of indicator data consists of 3 indicators, namely, learning conditions, learning methods and learning outcomes. And each indicator is categorized using reference to 5 norm limits (Widoyoko, 2014), namely, very ineffective, ineffective, quite effective, effective and very effective.

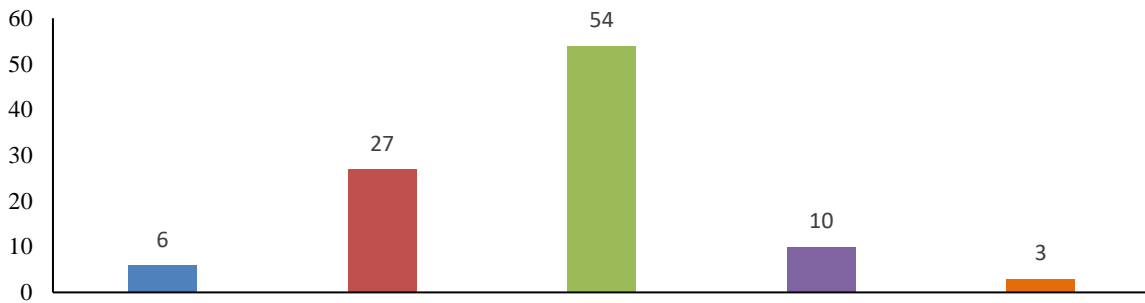
**Learning Conditions**

From the calculation results of 257 respondents, learning conditions obtained average (mean) = 21.97, median = 22, mode = 22, standard deviation = 3.641, lowest value = 12, highest value = 34. The

data table of the distribution of learning conditions is as follows:

**Table 7.** Frequency Distribution of Learning Conditions

No	Interval	Category	Frequency	%
1	$X < 16.4$	Very Ineffective	10	6
2	$16.4 < X \leq 20.2$	Ineffective	42	27
3	$20.2 < X \leq 25.2$	Quite effective	85	54
4	$25.2 < X \leq 29.6$	Effective	16	10
5	$> 29.6$	Highly Effective	4	3
Sum			157	100



**Figure 7.** Learning Conditions Diagram

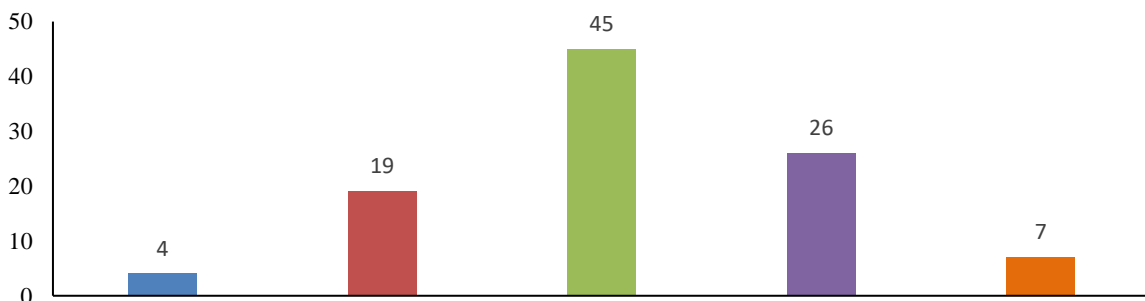
Based on the research tables and figures from 157 respondents, it is known that High School Learning Conditions are included in the Quite Effective category of 54%, very ineffective category of 6%, ineffective category of 27%, effective category of 10% and very effective 3%.

**Learning Methods**

From the calculation results of 157 respondents, the Learning Method obtained average (mean) = 52.61, median = 52.61, mode = 54, standard deviation = 5.483, lowest value = 28, and highest value = 67. The Learning Method distribution data table is as follows:

**Table 8.** Frequency Distribution of Learning Methods

No	Interval	Category	Frequency	%
1	$X < 40.9$	Very Ineffective	2	4
2	$40.9 < X \leq 45.3$	Ineffective	13	19
3	$48 < X \leq 49.1$	Quite effective	23	45
4	$49.7 < X \leq 54.1$	Effective	64	26
5	$> 54.1$	Highly Effective	55	7
Sum			157	100



**Figure 8.** Learning Method Diagram

Based on the research tables and figures from the 123 respondents, it is known that the High School Learning Method is included in the Quite Effective category, which is 61%, the very ineffective category

by 6%, the ineffective category by 24%, the effective category by 7% and the very effective 3%.

### **Discussion**

This study aims to determine the difference in the effectiveness of physical education, sports and health learning during the PPKM period between high school and vocational students in Nogosari sub-district, which is divided into several indicators that show mixed results. From the results of the research that has been analyzed, it was found that the level of learning effectiveness during PPKM between high school and vocational students in Nogosari is in the category of quite effective, because students are accustomed to accessing the internet with their mobile phones even though there are still obstacles such as internet network problems. The effectiveness of mobile phone use in learning is in line with Pribowo (2020) who explained about the behavior of children and adolescents in using the internet, noting that as many as 84 percent of the total number of all Indonesians are mobile phone users.

### **The effectiveness of physical education, sports and health learning during the PPKM period among high school students in Nogosari sub-district**

From the results of research with indicators of learning conditions in high school students, it was found that learning conditions are included in the effective category because where the facilities provided are sufficient, these facilities are internet quotas, according to Pribowo (2020) the behavior of children and adolescents in using the internet recorded that as many as 84 percent of the total number of all Indonesian people are mobile phone users. So that they are not too difficult to access online learning related to the internet network.

From the results of research with indicators of high school student learning methods, it was found that learning methods are included in the category of quite effective because in providing material teachers are less creative and monotonous in providing learning materials so that students experience boredom. The teacher only provides material without any questions and answers. according to (Syahida, 2020) the most important task of teachers is how to condition a pleasant learning environment in order to arouse the curiosity of all students so that their interest and lust for learning grows.

From the results of research that I conducted with indicators of learning outcomes of high school students, it was found that learning outcomes were in the category of quite effective because to understand the material took a lot of time, and also students preferred to learn directly face-to-face.

### **CONCLUSION**

The Covid-19 pandemic has changed the education system in Indonesia to distance learning with online media. This is done to reduce and stop the chain of spread. Based on the results and discussions discussed in the previous chapter, the conclusion that can be drawn is that there is no difference in the effectiveness of sports and health physical education learning during the PPKM period between high school and vocational students in Nogosari District. The effectiveness of high school and vocational learning is included in the category of quite effective. Educators have a very decisive role in the success of this online learning. Educators must create creative, innovative, and recreative learning methods that stimulate students to be willing to be actively involved in online learning and feel the meaning of learning.

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