

# Effectiveness of Online Learning in the Covid-19 Pandemic

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**Abstract.** The Covid-19 pandemic, which has affected practically every country on the planet, has had an impact on changes in the system and order of life, including the education system in Indonesia. Because of the epidemic, learning that could previously be done face-to-face must now be done online. The application of online learning during the Covid-19 epidemic must be assessed. One of them is discovered as a result of this research. The purpose of this research is to investigate the efficacy of high school online learning in Central Java. The survey research method was employed, along with a questionnaire instrument. According to the findings, 44.1 percent of students were unsatisfied with the implementation of online learning, 12 percent were extremely displeased, 27.2 percent were very content, 12.9 percent were satisfied, and just 3.8 percent were very satisfied. Poor signal problems, inefficient quotas, unsupported cellphones, and students feeling bored and bored with online learning are some of the constraints that students face while learning online. Teachers use Google Classroom, WhatsApp, Zoom, Google Meet, and Microsoft Teams for online learning. In terms of the learning approach adopted, students continue to favor face-to-face learning with a 44.7 percent preference. In addition to the face-to-face format, 39.9 percent of students choose the blended learning model, which combines online and offline instruction. Only 15.5 percent prefer online education.

Keywords: Effectiveness, Pandemic, Covid-19, High School, Central Java

## 1. INTRODUCTION

The corona virus, which was found in Wuhan, China, has spread to nearly all countries in this region. The virus has altered the natural order and system of life. This includes Indonesia's educational system. Learning was done face-to-face prior to the Covid-19 epidemic, but following the outbreak, learning was converted to online learning. Online learning, often known as distant learning, is learning that takes place online through the use of learning programs and social networks. Online learning is learning that takes place without the need of a face-to-face encounter, but rather through the use of a readily available platform. The Ministry of Education and Culture Regulation No. 119 of 2014 concerning Guidelines for the Implementation of Distance Learning contains regulations governing the implementation of distance education or online learning in Indonesia. The primary facilities and infrastructure for the implementation of learning are identified in the law as information and communication technology.

According to Imania & Bariah, (2019) online learning is a form of delivering conventional learning that is altered into digital format via the internet. Online learning is considered to be the only medium for conveying material between teachers and students during a pandemic emergency. In line with Imania, Rachmat & Krisnadi, (2020) revealed that online learning is a solution for continuing to carry out teaching and learning activities.

Online learning carried out during the COVID-19 pandemic, especially at the SMA/SMK level in Central Java, had both positive and negative impacts. The positive impact that is felt is reducing the risk of transmission of Covid-19 in high school/vocational school children, while the negative impact is not achieving the expected learning objectives. This also happens at the elementary level. According to Sari et al. (2021) online learning that is carried out causes the expected learning objectives to not be achieved. So that it makes the material incomplete and the use of learning media in online learning is not optimal. Student assessment is also constrained by mere cognitive assessment.

In online learning, recognize the terms synchronous and asynchronous. In synchronous learning, students and teachers are in the same place at the same time. This is similar to face-to-face classes for example via zoom. Synchronous learning allows students and teachers to participate and learn directly and engage in direct discussion. While asynchronous learning is an independent learning process with asynchronous interaction. Asynchronous learning usually uses a Learning Management System (LMS), students communicate using email, post on discussion forums, read articles and others. Online learning, both synchronous and asynchronous, should be evaluated to see its effectiveness. Specifically, this research aims to determine the effectiveness of online learning at the equivalent high school level in Central Java.

## **2. LITERATURE REVIEW**

Several studies related to this research and used as a reference are the research of Dewantara & Nurgiansyah (2021), Astuti (2021), and Komarudin & Subekti (2021). Dewantara & Nurgiansah (2021) conducted a study to determine the effectiveness of online learning during the Covid-19 pandemic for PGRI Yogyakarta University students. This study uses a quantitative model with a survey method. Respondents from this study amounted to 1,000 students. The results showed that 79% of students wanted face-to-face learning, only 1% of students wanted online learning, so continuous online learning during the pandemic was considered very ineffective. The research by Dewantara & Nurgiansah (2021) has similarities and differences with this study. The similarity in the method used is the survey method, while the difference is in the research subject.

Furthermore, Astuti (2021) conducted a study to determine the impact of the implementation of online learning on teachers and the quality of learning at the elementary school level. This research method is a survey with a Likert questionnaire instrument. The results of this study indicate that the level of effectiveness of online learning during the Covid-19 pandemic is 39.6%, meaning that it is in the low category. Some of the obstacles found in the implementation of online learning during the Covid-19 pandemic were that teachers had difficulty establishing two-way communication with students, there was a miscommunication between students and teachers, as well as students' guardians and teachers, inadequate online learning support devices, poor internet connection, and students' learning motivation in participating in learning decreased. Astuti's research (2021) is related to this research, which both aim to determine the effectiveness of online learning. The difference is at the school level that is the target of the research.

Another study was conducted by Komarudin & Subekti (2021). This study aims to determine the level of satisfaction of Grade VIII SMP Negeri 14 Yogyakarta students towards online learning Physical Education in the Covid-19 Pandemic Era 2020. This type of research is a quantitative descriptive study with a survey method. The conclusion of the research is that most of the students have a low level of satisfaction

with PJOK subjects. 43.38% said they were not satisfied, 31.32% said they were very dissatisfied, 19.28 said they were quite satisfied and only 6.02% said they were satisfied. Komarudin & Subekti's (2021) research has similarities and differences with this study. The similarity lies in the method used, while the difference lies in the research objectives and research objectives.

Based on some of the studies above, it shows that this research has never been carried out by previous research. The results of previous studies concluded that online learning has not been effective, either at the level of college, elementary school, or junior high school or equivalent. This research will complement previous studies by knowing the effectiveness of online learning during the Covid-19 pandemic in Indonesia at the high school level or equivalent.

### **3. METHODOLOGY**

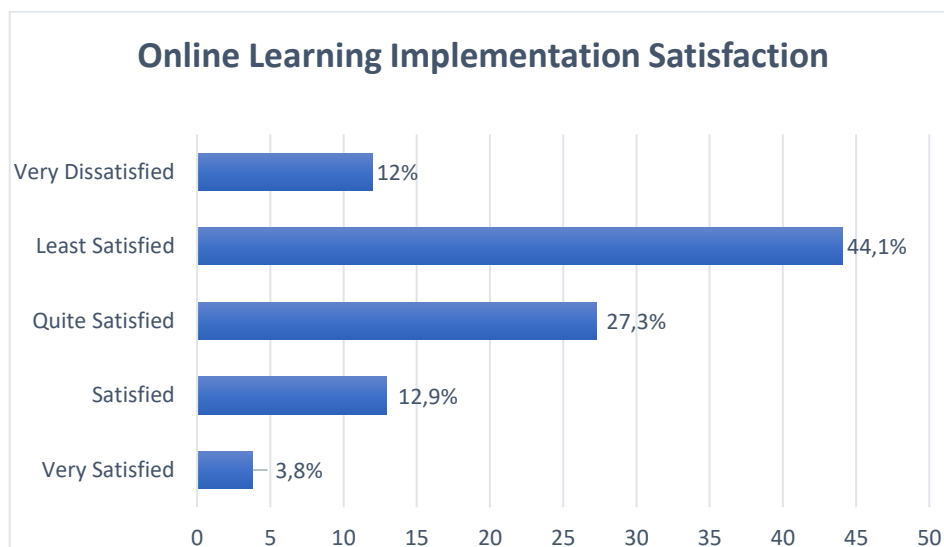
This study uses a quantitative descriptive approach with a survey method. The survey method is supported by research instruments in the form of a questionnaire with the help of a google form. The Google form is used with the consideration of being able to reach respondents who are far from the researchers and the Covid-19 pandemic conditions that do not allow face-to-face data collection. Respondents are high school students, SMK equivalent in the province of Central Java. The number of respondents was 458 students spread across Semarang City, Surakarta City, Cilacap Regency, Blora, Boyolali, Demak, Rembang, Klaten, Sukoharjo, Grobogan, Karanganyar, Magelang, and Wonogiri. The entire data in the form of a questionnaire that was successfully collected was then analyzed with quantitative statistics and then reported in the form of bars.

### **4. RESULTS AND DISCUSSION**

Researchers asked several questions to determine the effectiveness of online learning at the high school level or equivalent. The questions are in the form of an online questionnaire which is distributed to high school and equivalent vocational high school students. The result is as follows.

#### **1. Satisfaction of the Implementation of Online Learning**

Online learning satisfaction is the level of student satisfaction with the services provided by the teacher and all systems available in online learning. The question asked to respondents to see student satisfaction with online learning was "What is your opinion regarding the implementation of online learning during the Covid-19 pandemic?". The result is 44.1% of students stated that they were not satisfied with the implementation of online learning, 12% of students said they were very dissatisfied, 27.2% of students said they were quite satisfied, 12.9% of students said they were satisfied and only 3.8% of students said they were very satisfied.

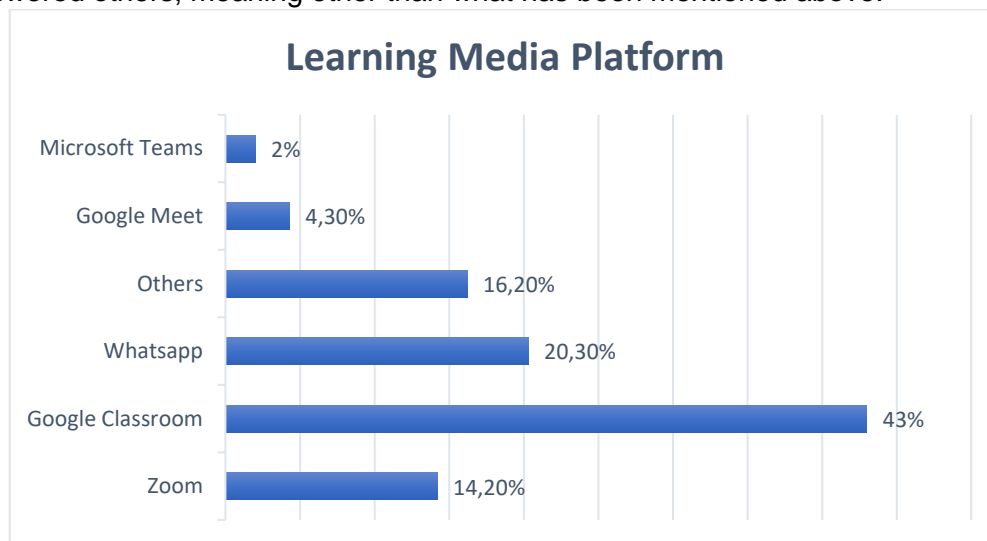


This low level of satisfaction is the same as the research of Komarudin & Subekti (2021). It was further explained that online learning provides more theoretical understanding, where not all students are able to quickly absorb the material or theory provided by the teacher. Therefore, it is hoped that there will be a solution from the government regarding the Covid-19 pandemic so that learning can be carried out face-to-face again.

## 2. Learning Media Platform

There are many choices of online learning media, ranging from just sending messages (chatting) to media that can display videos or conduct video conferences. (Hidayat & Noeraida, 2020). Learning media that are usually used during the Covid-19 pandemic are online-based media such as Google Classroom, Google Meet, Zoom, Microsoft Teams, WA and so on.

To find out the type of media used by the teacher in learning, the researcher asked the question "what learning media was used during the Covid-19 pandemic?". The result indicated 43% used Google Classroom media, 20.3% used Whatsapp, 14.2% used Zoom, 4.3% used Google Meet, 2% use Microsoft Teams and the last 16.2% answered others, meaning other than what has been mentioned above.

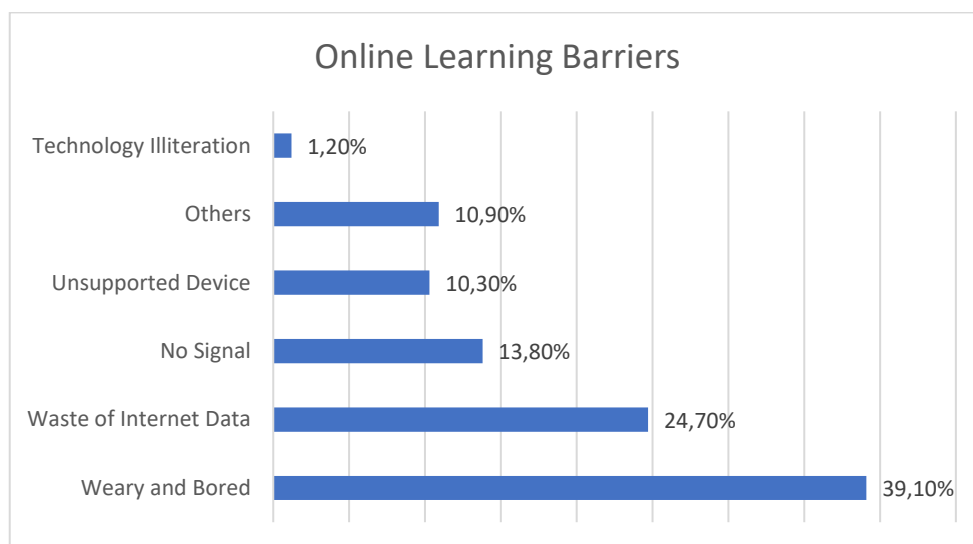


Google classroom is the highest ranked media chosen by teachers as media in online learning because teachers are quite familiar with google classroom, how to use it is easy and the platform provides facilities for interactive communication in the form of text. Whatsapp is also the choice of learning media used by teachers. Whatsapp is considered practical and easy to use by teachers and students. In addition, the WhatsApp application was quite familiar even before the pandemic, many used the application. The Google Meeting or Zoom application is used side by side with other applications, namely the WhatsApp application.

The selection of learning media is in accordance with the abilities and wishes of the teacher. With various limitations in the Covid-19 pandemic situation, teachers always try to continue to learn various kinds of online learning media, in order to be able to present fun, interactive and innovative learning. Regarding learning media, the government has actually prepared various online learning support media such as data package assistance to teachers and students, distance learning facilities that can be accessed via smart phones, TV and radio.

### 3. Barriers to Online Learning

The online teaching and learning process during the Covid-19 pandemic is a new and challenging thing for teachers. At first glance, online learning seems so easy. When students and teachers have cellphones and laptops and an internet network, learning can be carried out. The reality is different, there are many obstacles experienced in online learning. Obstacles to online learning include poor signal problems, wasteful quota, unsupported cellphones, and students feeling bored and bored following online learning.

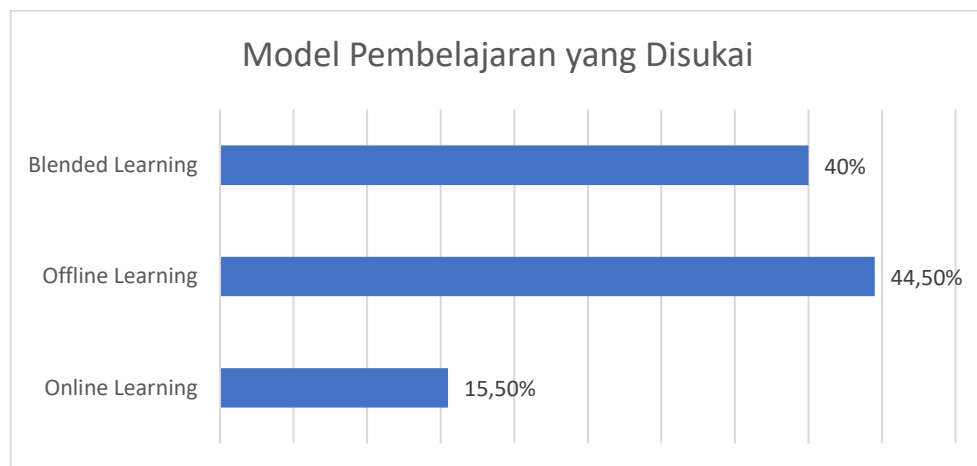


Weary and bored students occupy the highest position, namely 39.1% due to several reasons, including the teacher has not used varied learning methods, the teacher gives quite a lot of assignments to students, students feel they have no friends when learning online, reduced concentration when studying because staring at the cellphone screen for too long, and an unsupportive environment such as a crowded or noisy house. Basically, during this pandemic, students miss school, miss real interactions in the learning process and not just the transfer of materials and assignments from the teacher to their students during online learning.

In addition to being bored, students also feel that online learning is wasteful of Internet data. Some students cannot participate in online learning because of the absence of an internet network signal. In addition, most of the parents with mediocre economic conditions also do not have smart phones or smartphones as a means of online learning for their children (Atsani, 2020)

#### 4. Learning Models Liked by Students

Based on the completed questionnaire, 44.5% of students wanted offline learning. The offline learning system is a learning system that is carried out face-to-face directly. Furthermore, as many as 40% of students like blended learning. Blended learning is an online and offline learning model. Blended learning is one of the new learning strategies that provides many benefits for students, as well as a form of information and communication technology support for new learning. In fact, blended learning was identified as one of the presentation strategies of the top ten emerging trends in the knowledge delivery industry (Rooney, 2003). Only 15.5% of students like online learning.



The low percentage of students who like online learning is due to several factors, including in online learning students are less able to express their aspirations and opinions. Online learning cannot adapt learning styles to the personality of each student who participates in learning activities. In online learning, all students will follow a learning program that has been made the same and only supports one or two learning styles. In addition, in online learning, students feel unable to directly ask the teacher, students feel bored, the inadequate internet network also makes them difficult with the lessons being taught.

#### 5. CONCLUSION

The results showed that high school students in Central Java were dissatisfied with the implementation of online learning during the Covid-19 pandemic. Constraints experienced by students during online learning included poor signal problems, wasteful quotas, unsupported cellphones, students feeling bored and bored with online learning. While the media used by teachers during online learning are Google Classroom, WhatsApp, Zoom, Google Meet and Microsoft Teams. Regarding the learning model chosen, students still prefer face-to-face learning rather than online learning. Online learning has given rise to new concepts in the world of education, such as Learning from Home. The concept of learning from home requires the role of various parties such

as teachers, parents and the government. The synergy between parents, teachers, and the government will create quality education and be able to compete globally.

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