# THE IMPLEMENTATION OF ONLINE LEARNING AND ITS ADAPTATION TO THE POLICIES AT SECONDARY SCHOOLS IN INDONESIA DURING THE COVID-19 PANDEMIC

**Nurmalahayati Nurdin[1,2]\*, Muhammad Ya'kub Aiyub Kadir[3], Amlisa Mutiandini Sipahutar[1], May Sintia Sipahutar[1], M. Edo Ardiansyah[1], Zahrul Fuadi[4], Nasri Diana[5]**

[1]Chemical Education Study Program, Universitas Islam Negeri Ar-Raniry, Banda Aceh 23111, Indonesia
[2]Research Center for Social and Cultural Studies (PRISB) Universitas Syiah Kuala, Banda Aceh 23111, Indonesia
[3]Law Faculty, Universitas Syiah Kuala, Banda Aceh 23111, Indonesia
[4]Environment-HSSE, PT. Pertamina Hulu Energi NSO, Lhokseumawe 24355, Indonesia
[5]STIT AlHilal, Sigli 24114, Indonesia
\*Email: nurmalahayati@ar-raniry.ac.id

## ABSTRACT

The COVID-19 virus has forced the world to experience a global pandemic for the past few years, including in the education system. Indonesia has adapted to the situation by shifting the mode of study from offline to online during this era. The policy change from central and local government was adopted very well by the school's community, including teachers and students. This study aims to analyze how online learning is implemented during the COVID-19 pandemic and how policies support the implementation of online learning. The research was conducted quantitatively, employing 160 secondary school teachers. The findings of this study show that most participants agree that online learning improves understanding of the use of technologies by both teachers and students, provides more access to different types of online teaching and learning materials, and more parental supervision during the learning process even though the condition caused the student to become less active compared to the offline system. This study provides insight into the fact that the online learning platform can remain an option for conducting learning in schools after the pandemic. The results also can have implications for the government in the education sector and educators to promote more engagement in technology for the purpose of learning to improve the quality of education in the Indonesian system.

**Keywords:** online learning, policies, school, Indonesia

## INTRODUCTION

Our contemporary civilization recently was severely disrupted by a global pandemic caused by SARS-CoV-2 also known as Covid-19 virus. The virus became an international threat, put the world at risk, and turned to a halt a series of lockdowns and economic downturns over the last couple of years. Furthermore, the pandemic exposed 91 million people around the

world, with a total death toll reaching 2 million lives. The various adverse impacts caused by the pandemic, ranging from economic to social collapse occurring across the globe. Hence, this global event has proven to be an unprecedented threat to humanity and has become one of the most critical health crises within the last hundred years.

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) stated that the Covid-19 pandemic globally impacts 800 million students. The statistics also further state that 102 countries released a nationwide policy for school closings. As a result, it was found that 1 in 5 students could not go to school normally and were unable to attend their classes. Hence, it is evident that Covid-19 has significant impact in the global education system and threatened students' rights to education.

Indonesia was one of the countries impacted by the pandemic. The spread of COVID-19 has caused the Indonesian education system to experience various changes. One of the significant changes is the transition from a face-to-face learning system to a online learning system to sustain the process of learning. The nation formulated an online learning system that started on 16 March 2020. The formulation was based on the Ministry of Education's ministerial decree No. 4/2020 about the implementation of educational policy during the COVID-19 pandemic emergency period. Furthermore, the decree is the Indonesian government's official response to suppress the COVID-19 virus spreading in the nation.

Online learning has a different impact on the achievement of each learning goal. Some positive impacts of online learning are that students can learn independently and manage their time in studying whenever and wherever they want with access to more varied learning materials (Luckyardi & Rahman, 2021). According to (Dong & Wu, 2021), this is why several educational institutions finally decided to change the direction of education to an online platform so that the educational process continues even though many educational institutions went completely shut down during the pandemic. However, some argue that the method cannot reduce the spread of Covid-19. It still poses various challenges for teachers and students (Hardiansyah et al., 2021). The online learning that can be carried out by using different applications such as Google Meet, Google Classroom (Reza et al., 2021), and other digital platforms can be less effective compared to face-to-face due to internet connection problems. Some problems might be faced by using online learning because some teachers are not familiar with technology, and also limited internet access in some area (Rismawati et al., 2022).  Other obstacles in implementing online learning are a lack of understanding of materials due to limited communication between the teachers and students; the internet is not available in several areas, lack of facilities and teachers' competencies in using technologies, limited access to online material, making it more difficult for both teachers and students to participate in online learning (Gumanti et al., 2022; Sulastri et al., 2020). The condition has affected two-way communication during the learning process, where only some of the information has been received completely and needs to be clarified due to the poor quality of the internet network (Reza et al., 2023). Also, there are problems with full storage space due to too much data and assignments being given. The condition causes children to be less enthusiastic when participating in online learning. The condition can result in decreased or loss of motivation for learning and the risk of dropping out of school.

To adapt to the condition, the government has played an important role in reducing the negative impact of the pandemic condition. Some programs designed to help schools including making a learning-from-home program (BDR), which is broadcast on TVRI about educational challenges and alternatives for students, teachers, and parents. Then the government added free quota subsidies for students, teachers, students, and lecturers from September to December 2020, as well as several other programs, namely the launch of the sharing teacher portal, as well as budget relocation to support online learning. Nevertheless, the process still faced some challenges in the implementation. Due to this condition, some schools have implemented hybrid learning that combines offline and online learning(Nurmalahayati et al., 2022). The government issued Standard Operating Procedures (SOPs) to support the implementation of hybrid learning during a pandemic. The SOPs that have been implemented vary due to zone conditions. For example, in some areas of schools, students apply health protocols by washing hands with soap and hand sanitizer and spraying classrooms before being used for the learning process. While others follow different rules by maintaining distance, using masks, using hand sanitizer, and avoiding crowds. Apart from that, students are also encouraged to bring food and drinks from home and carry out different entry schedules between classes to minimize crowds. Another practice is the implementation of learning carried out with a class system by attending the class consisting face-to-face of a maximum of 25 students per class where the teacher's teaching duration is limited to 1 lesson hour with 20 minutes to explain difficult lessons and assignments done at home.

At that time, the COVID-19 pandemic still has no certainty when it will end; it has become a challenge for the government to adopt policies related to the implementation of learning in education sectors. Many policy changes issued during the period by the central and local governments overwhelmed schools with these policy adjustments. Policy changes make schools "ready or not ready" and have to swiftly address the regulations quickly and make significant change to ensure that students have good access to learning activities. Nevertheless, some problems might be identified in the implementation due to the change of policy during the COVID-19 specially give a significant impact on achieving a good quality of education.

The purpose of this study is to analyze how online learning system implemented during the COVID-19 pandemic and how the policy changes have supported the implementation of online learning during that time. This research is expected to provide a good lesson learned and can benefit schools in maintaining online learning platforms as part of learning in the education system in Indonesia.

## METHODS

### Types of Research

This type of research is quantitative research, which uses a questionnaire to collect the data. The quantitative research could provide valid, reliable, objective, and generalizable things. The questionnaire is also an instrument that can be easily used and can collect data from many participants. The purpose of the survey method is to obtain accurate data on a group that is not limited to demographic information and can collect attitudes and beliefs in a population. Questionnaires that have focus questions can obtain more information from intended

participants. Questionnaires can also be used to collect various responses from many individuals regarding a problem encountered (Feldman, 2020).

## Participants

The participants involved in the data collection were 160 teachers and school management from secondary schools in Banda Aceh and Aceh Besar, Aceh, Indonesia. The distribution on respondents is presented in Figure 1.
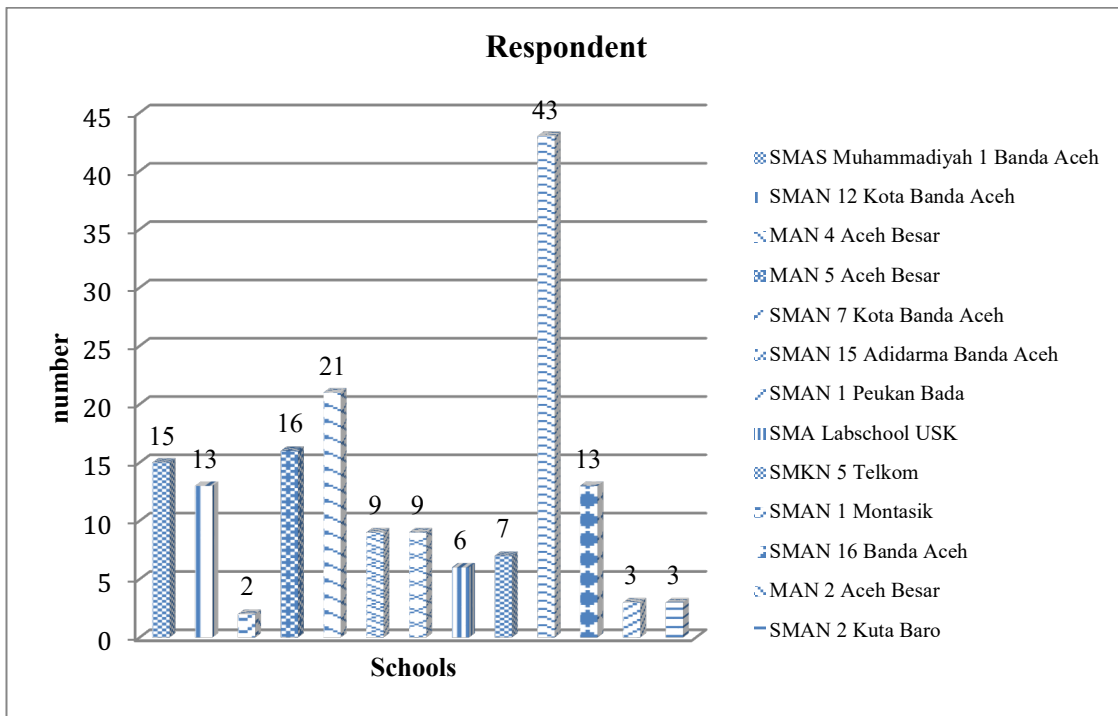


Figure 1. The Distribution of Respondents

The table below showed that most participants were graduates with bachelor's degrees (S-1), as much as 91.88%, and the rest were postgraduate graduates (S-2 or S-3), as much as 8.12%. Most participants had teaching experience of 11-15 years, namely 25%, followed by teachers with 16-20 years of teaching experience, 23.13%, then teachers with 0-5 years of teaching experience, 22.5%. Then, teachers with teaching experience > 20 years as much as 20.62%, and the rest have teaching experience of 6-10 years, as much as 8.75%. It was noted that most of the participants who participated in this study were teachers in high schools (93.1%), while the rest were school management (6.9%).

Table 1. Participant Demographics

| Demographic Background | | Respondents | Percentage |
|---|---|---|---|
| Gender | Man | 23 | 14.38 |
| | Woman | 137 | 85.62 |
| Level of education | Bachelor | 147 | 91.88 |
| | Postgraduate | 13 | 8.12 |

| | | | |
|---|---|---|---|
| Teaching Experience in Schools | 0-5 Years | 36 | 22.50 |
| | 6-10 Years | 14 | 8.75 |
| | 11-15 Years | 40 | 25.00 |
| | 16-20 Years | 37 | 23.13 |
| | >20 Years | 33 | 20.62 |
| Profession in School | Teacher | 149 | 93.13 |
| | School Management | 11 | 6.87 |

## Data Collection

The process of data collection is done by using an online questionnaire; it is intended that it can be used easily and can be accessed using various tools (Setiawan, 2012). Then, the questionnaire was distributed to the school by using a link with the coordination with the school representative, namely the vice principal in the field of curriculum which would later be distributed to teachers via a special WhatsApp Group for teachers. Then, the teacher will fill out the questionnaire distributed on the WhatsApp Group. The process of filling out the questionnaire was carried out for about four weeks.

## Research Instruments

The questionnaire used contains conceptual statements regarding learning during the COVID-19 pandemic, focusing on the changes in the learning system from offline to online. Questionnaires are used in the form of a Google Form, which has been provided via a link and is divided into several sub-sections, including participant demographics, government policies on online learning, device readiness and ability to participate in online learning, benefits of online learning, supporting factors and inhibiting factors of online learning and offline and the prospects for online and offline learning.

To validate the questionnaire, we use the Statistical Program method for Social Science (SPSS). SPSS is a computer program used to analyze data and perform statistical calculations, both parametric and non-parametric. This statistical program can provide different type of calculations, and it can also analyze research with more variables (Sunjoyo et al., 2013).

Table 2. Cronbach's Alpha coefficient of the construct questionnaire

| Construct | Cronbach's Alpha Coefficient |
|---|---|
| Government Policy Regarding Online Learning | .893 |
| The Readiness, Ability, and benefit of Online Learning | .891 |
| Supporting and Inhibiting Factors of Online Learning | .898 |
| Parents supports for online learning | .890 |

| | |
|---|---|
| Prospects for Online Learning | .893 |

Cronbach's Alpha can show reliability with a higher number from the column Cronbach's alpha value of 0.897, where the higher the value of Cronbach's Alpha (a coefficient value of .70 or higher can be said to be "acceptable"), the level of data reliability will be better and can be said as a good instrument (Murniati et al., 2013). Table 3 shows the Cronbach's Alpha coefficient of the multiple constructs for good data reliability.

Table 3. Reliability Test

| Variable | rxy | r table 5 % | Information |
|---|---|---|---|
| XY | .897 | .159 | Reliable |

## RESULTS AND DISCUSSION

### The Participant's view on the COVID-19 disasters

Several questions have been developed to assess the participants' views on their knowledge of COVID-19. This section aims to see the participants' perspectives on the Covid-19 disaster.

Table 4. Participants' Views of the Covid-19 disaster

| View of Participants | Percentage |
|---|---|
| The covid disaster is a destiny that must be accepted without doing anything | 8.8% |
| Disasters are doom due to human error | 5.6% |
| The covid disaster is sunnatullah and humans  no need to do an overview in reducing the impact it causes | 85.6% |

The data showed different views on COVID-19 as part of the disaster comes from God. From these data, it is clear that most participants accept the COVID-19 disaster as Sunnatullah, and humans need to do something to reduce the impact (85.6%). While some believed that the COVID-19 disaster was a destiny that must be accepted without doing anything (8.8%). Interestingly, only a few participants answered that the COVID-19 disaster was a punishment due to human error (5.6%).
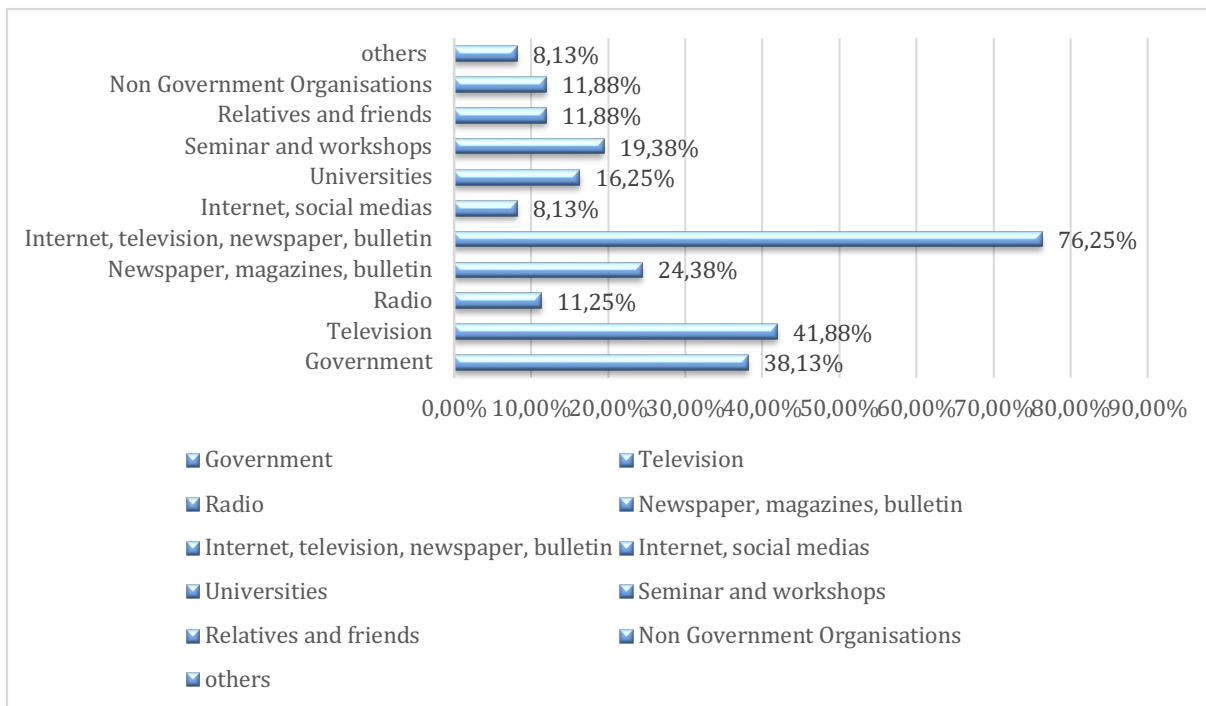
Figure 2. Sources of Participant Information related to Covid-19

Regarding the sources of information obtained by the participants related to COVID-19, the results of this study showed that most of the information about COVID-19 is received from the internet and social media. Many of participants also get a source of information related to COVID-19 from TV, government, newspapers, magazines, or bulletins, as well as from a peer group, whether friends, family, or neighbors.

**The Policy implementation of online learning in the school system**

The implementation of new policies by central and local governments on online learning in the school system during COVID-19 has generated different responses. The survey shows different views from the school community at the implementation level.

Table 5. Schools responded to the new policy issued during COVID-19 by the government

| Statement | Answer | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Policy implementation | SS | % | S | % | RR | % | TD | % | STS | % |
| The school has implemented every policy issued by the central and regional governments. | 63 | 39 | 96 | 60 | 1 | 1 | 0 | 0 | 0 | 0 |
| School has carried out every policy issued properly. | 57 | 36 | 101 | 63 | 1 | 1 | 1 | 1 | 0 | 0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Schools carry out all policies from the central and regional governments. | 37 | 23 | 98 | 61 | 13 | 8 | 12 | 8 | 0 | 0 |
| Every policy issued by the government is very clear and can be carried out accordingly. | 33 | 21 | 100 | 63 | 15 | 9 | 12 | 8 | 0 | 0 |
| The policies issued have been designed so well so that they are easy to implement. | 28 | 18 | 104 | 65 | 18 | 11 | 10 | 6 | 0 | 0 |
| School community are very ready and supportive when there is a change in the learning system, both offline and online. | 29 | 18 | 107 | 67 | 15 | 9 | 8 | 5 | 1 | 1 |

The data above is also supported by the respondent view, which shows the biggest percentage (67%) strongly agree that they will be able to implement any in the learning system.
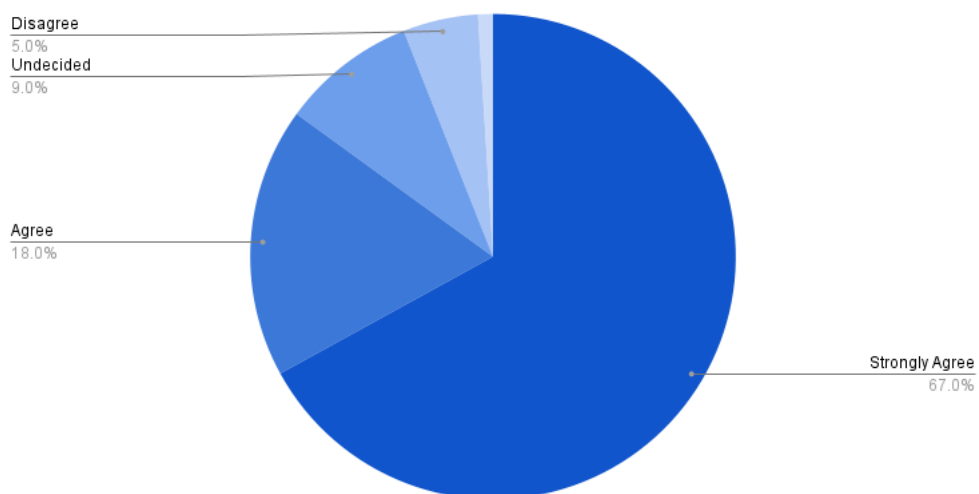


Figure 3.The readiness of school community to implement changes in the learning system

This study also shows that schools have implemented every policy issued by the central and local governments on the process of learning during the COVID-19 pandemic. Schools also consider every policy issued by the government to be very clear and applicable, which makes it easy for schools to implement. Most participants agreed that the government's support for online learning makes students, teachers, and school management ready to implement changes to the learning system imposed by the government.

**The Readiness, Ability, and benefit of Online Learning**

The pandemic has made schools need to be prepared for any circumstance that might happen. In this situation, schools are expected to be able to adapt and take some benefits of the condition. The data shows how schools responded to the situation.

Table 6. The School community's capabilities and potential for Online Learning

| Statement | Answer | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| The Readiness, Ability, and benefit of Online Learning | SS | % | S | % | RR | % | TD | % | STS | % |
| Information technology makes the learning process more effective. | 51 | 32 | 92 | 58 | 9 | 6 | 7 | 4 | 1 | 1 |
| Able to search various sources of information with the internet. | 59 | 37 | 87 | 54 | 11 | 7 | 3 | 2 | 0 | 0 |
| The school has adequate computers and internet access. | 47 | 29 | 93 | 58 | 3 | 2 | 17 | 11 | 0 | 0 |
| Each teacher has adequate computers and internet access. | 28 | 18 | 104 | 65 | 17 | 11 | 11 | 7 | 0 | 0 |
| Able to use various applications on the computer to complete tasks. | 19 | 12 | 99 | 62 | 30 | 19 | 12 | 8 | 19 | 12 |
| Teachers are competent in using online learning media such as classroom, google meet and others. | 19 | 12 | 110 | 69 | 23 | 14 | 8 | 5 | 0 | 0 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| The teacher explains well in carrying out activities online | 28 | 18 | 98 | 61 | 20 | 13 | 12 | 8 | 2 | 1 |
| Teachers are quick to provide responses/feedback on online learning | 21 | 13 | 103 | 64 | 25 | 16 | 25 | 16 | 0 | 0 |
| Online learning can be done anywhere and anytime | 33 | 21 | 107 | 67 | 10 | 6 | 10 | 6 | 0 | 0 |

Technology plays a significant role in conveying information during the pandemic condition. It plays a pivotal role in making learning more effective due to changes in the learning system from face-to-face to online. The majority of the participant agreed that the benefits of online learning include the fact that school communities are getting more ready to use technology in their learning process during this era. Teachers are equipped with computers supported by schools, while some might use their personal computers and good internet access that can be used in online learning. With all the support of the facilities, teachers can gain more information on particular subjects using the Internet to make their learning more effective. Teachers can also use online learning media such as Classroom, Google Meet, and other digital platforms to conduct their online classes. The class can be managed from any place and at any time.

**Supporting and inhibiting Factors of Online Learning**

Many challenges might happen during the process. Some factors will make the process faster, while others might make it as not as expected. The data below show some supporting and inhibiting factors identified in the implementation of online learning at school.

Table 7. Supporting and inhibiting factors in using online learning platform

| Statement | Answer | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Supporting and Inhibiting Factors | SS | % | S | % | RR | % | TD | % | STS | % |
| Information and communication technology infrastructure in schools supports distance learning. | 29 | 18 | 93 | 58 | 27 | 17 | 11 | 7 | 0 | 0 |
| There is a distribution of | 37 | 23 | 94 | 59 | 20 | 13 | 9 | 6 | 0 | 0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| free internet quota from the Government or schools. | | | | | | | | | | |
| Learning materials are very easily accessible to students. | 22 | 14 | 95 | 59 | 34 | 21 | 9 | 6 | 0 | 0 |
| Not all students or teachers have internet access. | 23 | 14 | 94 | 59 | 25 | 16 | 13 | 8 | 5 | 3 |
| Preparation of technology and information infrastructure for online learning requires large funding. | 34 | 21 | 100 | 63 | 18 | 11 | 8 | 5 | 0 | 0 |
| Too many assignments are given to students during online learning. | 13 | 8 | 66 | 41 | 20 | 13 | 60 | 38 | 1 | 1 |
| Passive student responses during the online learning process. | 27 | 17 | 85 | 53 | 25 | 16 | 20 | 13 | 3 | 2 |
| Obstruction of communication between students and teachers during the online learning process. | 27 | 17 | 86 | 54 | 22 | 14 | 24 | 15 | 1 | 1 |

In fact, the pandemic has different impacts on school learning. Many factors influence making learning more effective during this period. This research found that besides the benefits, inhibiting factors might arise, including the infrastructure issue to cope with the condition,

students being burdened with many assignments to achieve the learaning objectives, and communication issues between teachers and students.

**Parents' support for online learning**

Parent plays more roles and responsibilities to assist their children's learning process during the pandemic, supported by teachers and schools. They are one of the key points in the learning process. The involvement of parents during the learning can help teachers to achieve the learning goals.

Table 8. Parent's support during the implementation of online learning.

| Parents' support for online learning | SS | % | S | % | RR | % | TD | % | STS | % |
|---|---|---|---|---|---|---|---|---|---|---|
| Parents are very supportive of online learning activities | 15 | 9 | 59 | 37 | 51 | 32 | 32 | 20 | 3 | 2 |
| Parents understand when students carry out online activities and do not burden students with added other responsibilities. | 11 | 7 | 78 | 49 | 49 | 31 | 21 | 13 | 1 | 1 |
| Parents always supervise online learning activities at home and always ask their children whether there is an assignment or not. | 14 | 9 | 70 | 44 | 51 | 32 | 24 | 15 | 1 | 1 |

This study also found another benefit of online learning: parents are very supportive and involved intensively in assisting their children in the process of learning. They only add a few responsibilities when carrying.

**Prospects for Online Learning**

The last finding in this study is that there are also prospects for maintaining an online learning platform. In the study, many participants agreed that online learning can improve their understanding of the use of information technology and have a better impact on the learning outcome compared to offline methods. The availability of various online materials helps teachers and students understand more about the subjects, which results in the improvement of the learning outcome.

Table 9. Prospects for maintaining an online learning platform

| Statement | Answer | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Prospects | SS | % | S | % | RR | % | TD | % | STS | % |
| Open learning resources on the internet provide students with an understanding of information technology | 25 | 16 | 109 | 68 | 22 | 14 | 4 | 3 | 0 | 0 |
| Student learning outcomes improve more when online compared to offline. | 13 | 8 | 30 | 19 | 39 | 24 | 74 | 46 | 13 | 8 |
| Going online makes students know all the material well when there are social restrictions. | 4 | 3 | 34 | 21 | 47 | 29 | 67 | 42 | 8 | 5 |
| There are various online learning platforms available | 23 | 14 | 91 | 57 | 30 | 19 | 16 | 10 | 0 | 0 |

**CONCLUSION**

The pandemic has brought different perspectives on using technology in the learning process in Indonesia's education system. The availability of online learning platforms has brought several benefits, including the school community's improved understanding of the use of technologies, more access to different types of online teaching and learning materials that help students improve their knowledge of the subject they learn, and more engagement of parents during the learning process even though the condition caused the student to become less active compared to the offline system. Even some challenges might arise during the process, such as a lack of teachers' competencies in using technologies, the internet issue, and other factors influencing the learning process. However, with government support, the school is ready to implement the policy changes to the learning system during the pandemic era.

**REFERENCES**

Dong, D., & Wu, L. (2021). [Retracted] Implementation of English "Online and Offline" Hybrid Teaching Recommendation Platform Based on Reinforcement Learning. *Security and Communication Networks*, *2021*(1), 4875330.

Feldman, J. (2020). An ethics of care: PGCE students' experiences of online learning during Covid-19. *Critical Studies in Teaching and Learning (CriSTaL)*, *8*(2), 1–17.

Gumanti, D., Teza, S. D., & Respita, R. (2022). Analisis Implementasi Pembelajaran Luring Menjadi Daring Saat Pandemi Covid-19 Pada Mahasiswa Pendidikan Ekonomi Universitas Ekasakti. *Jurnal Pendidikan Ekonomi (JUPE)*, *10*(1), 70–77.

Hardiansyah, M. A., Ramadhan, I., Suriyanisa, S., Pratiwi, B., Kusumayanti, N., & Yeni, Y. (2021). Analisis perubahan sistem pelaksanaan pembelajaran daring ke luring pada masa pandemi COVID-19 di SMP. *Jurnal Basicedu*, *5*(6), 5840–5852.

Luckyardi, S., & Rahman, L. (2021). Application of e-learning system in the world of education. *Jurnal Teknologi Informasi Dan Pendidikan*, *14*(1), 47–52.

Murniati, M. P., Purnamasari, V., RATNANINGSIH, S. D. A., CHRISMASTUTI, A. A., SIHOMBING, R., & Warastuti, Y. (2013). *Alat-Alat Pengujian Hipotesis*.

Nurmalahayati, N., Salmiati, A., & Izasatifa, B. (2022). Anaylisis of the Covid-19 Learning Process and Knowledge Integration in the Education unit. *Jurnal Penelitian Pendidikan IPA*, *8*(1), 140–146.

Reza, M., Hamama, R., Maulida, S., Mayasri, A., & Rizkia, N. (2021). Persepsi Mahasiswa terhadap Pembelajaran Daring Berbasis Video dengan Bantuan Pen Tablet Selama Pandemi Covid-19. *Orbital: Jurnal Pendidikan Kimia*, *5*(2), 124–136.

Reza, M., Nurdin, N., Naila, N., & Sari, W. P. (2023). EVALUATION OF CHEMISTRY LEARNING VIDEOS FROM ONLINE LEARNING APPLICATIONS IN INDONESIA. *Chimica Didactica Acta*, *11*(1), 15–20.

Rismawati, N., Hanafi, I., & Zulaikha, S. Z. (2022). The strategy of Implemented limited face-to-face learning policy in junior high school during the Covid-19 pandemic. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran Dan Pembelajaran*, *8*(1), 190–198.

Setiawan, T. P. (2012). Survei online penunjang penelitian praktis dan akademis. *Seminar Nasional Teknologi Informasi & Komunikasi Terapan 2012 (Semantik 2012)*, 114–118.

Sulastri, D., Maula, L. H., & Uswatun, D. A. (2020). Utilization of Digital Platform in Online Learning During Covid-19 Pandemic at Elementary Schools. *Jurnal Pendidikan Dasar*, *11*(02), 219–229.

Sunjoyo, R. S., Carolina, V., & Nonie Magdalena, A. K. (2013). *Aplikasi SPSS untuk smart riset (Program IBM SPSS 21.0)*.