

# Readiness for Online Learning During Covid-19 Pandemic in the Vocational Education

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**Abstract:** This study was designed to see the learning readiness of vocational education students who were carried out online during the Covid-19 pandemic. Vocational education which has a peculiarity is the mastery of skills, so we want to see the extent of students' readiness to carry out online learning. In a quantitative research approach with a survey method, a survey was conducted on 247 vocational education students via a google form. The collected data were analyzed, then the results of the study revealed that students were fully ready to carry out online learning, starting with digital literacy, independent learning, and communication. Overall students are ready to do online learning. Judging from the characteristics of vocational education, there is practicum material that can be handled by the use of several supporting learning media. But in controlling themselves during the learning process (learning control), students have not been able to fully control themselves during the learning process. The online learning process provides various facilities for students, but still, the teacher has a role as a guide and guides students so that the learning process is following the expected goals.

**Keywords:** covid-19, online learning, readiness, vocational education

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## 1. Introduction

Epidemic Covid-19 which emerged in early 2020 has spread very quickly to various parts of the world, all activities are required to stop immediately (Razon, 2020). The Covid-19 pandemic has made the world change, all activities have stopped completely, everyone is limited, things are done to slow the spread of the virus. The Covid-19 pandemic demands social distancing, this greatly affects all activities, both offices, government institutions, and educational institutions (Sangsawang, 2020). Especially in educational institutions, it makes all students switch the learning process from traditional methods that are usually done face-to-face in class, to online learning, in a short time students and teachers are required to adapt to online learning. This situation creates a challenge for the world of education, especially in vocational education. Educational institutions must remain committed that learning can still be carried out even though it is done online. Thus, there is a need for finding good strategies in education comprehension (Mulyanti et al., 2020; Hashim et al., 2020; Sangsawang, 2020; Hernawati & Nandiyanto, 2021; Nasution & Nandiyanto, 2021; Huwaidi et al., 2021; Maryanti, 2021; Ganesha et al., 2021; Ramdhani & Nandiyanto, 2021; Maryanti & Nandiyanto, 2023).

The online learning process requires students and teachers to interact using various types of technology (Mulyanti et al., 2020). Online learning is the only choice during the Covid-19 pandemic, although previously several educational institutions implemented a blended learning system, which is a combination of learning methods between direct and online learning. The teacher has prepared everything (Muthuprasad et al., 2021).

Online learning has many impacts both on teachers and students (Saripudin et al., 2020). For students, online learning provides many opportunities and benefits as well as comfort (Ana et al., 2020), and students feel flexible in the

learning process and can learn anywhere and anytime (Dhawan, 2020), the time used is relatively short, there are many opportunities to collaborate with various people around the world because it is not limited by space and time (Gillett-Swan, 2017). Online learning can also provide more control of activities and the learning process and time management in learning (Coman et al., 2020).

Online learning as a solution made by educational institutions in dealing with the Covid-19 situation, educational institutions, especially in vocational education, which focuses on skills, demands strategies that suit the needs of students. Various strategies and media are used in delivering learning material, especially learning related to skills, where students are still required to master skills even though they do not do practical work directly in school. Teachers must be more creative in delivering material, giving project assignments, group assignments, and learning materials that they must master into an online learning management system (Learning Management System). In addition, teachers must design virtual classes by utilizing various applications that support video conferencing ranging from Zoom, Google Meet, Webex, Microsoft Teams, and so on. Overall, the process of exploring pedagogic material can be conveyed to students, but it is different from skills, especially in vocational education which requires students to master skills, therefore online learning has its challenges in vocational education. Not all learning activities can be conveyed if they are done online, but it is different from skills, especially in vocational education which requires students to master skills, therefore online learning has its challenges in vocational education. Not all learning activities can be conveyed if they are done online (Bozkurt et al, 2020).

Technology has an important role in the online learning process (Mahini et al., 2012). Teachers and students are required to master various technologies, besides that the facilities and infrastructure must support the online learning process starting from computers, laptops, tabs, smartphones, stable internet networks, as well as online learning platforms, as a whole must be prepared to support various online learning activities. Students must be able to access online learning from various platforms, students must always be ready to receive information from various sources and be ready to communicate with the teacher. Various communication tools can be done in indirect online learning (Asynchrooues) starting from email, WhatsApp, or online and direct platforms (Synchronous) starting from video calls, Zoom, Google Meet, Webex, Microsoft Teams, and others. And, this technology has been used and reported in online learning (Ganesha et al., 2021; Nasution & Nandiyanto, 2021; Suroto & Nandiyanto, 2021; Agustina & Nandiyanto, 2021; Ramdhani & Nandiyanto, 2021; Maulidayani et al., 2022). Learning that is carried out online provides a more dynamic environment, to support online learning both teachers and students need to have a level of technical training so that virtual learning can be maximally achieved. The level of readiness, especially in the use of technology, is important so that teachers and students can get the maximum benefit from this online learning model. Especially in

vocational education, which requires students not only to master the material but also to master skills. Thus, we did the level of online learning readiness of vocational education students in integrating online learning during the Covid-19 pandemic.

## 2. Method

This research uses a quantitative approach with a survey method. Students who are the objects of this research are vocational education students at the University of Education of Indonesia. A sample of 247 people was taken from the total population. The stages carried out in this study consisted of several stages, the first was the preparation of a questionnaire instrument that would be used for data collection. Development of a questionnaire using the Likert scale survey method. The Likert scale survey method is used in descriptive research to obtain data from students regarding the readiness of online learning in the face of a corona pandemic, with an agree/disagree, satisfied/dissatisfied approach, and so on about attitudes, opinions, behavior, or characteristics of the study. The researcher collected data quantitatively, the data was in the form of a questionnaire which was carried out online using the Google Form, which was then analyzed statistically to show the trend of the responses given by the target population about the phenomena being discussed (Boone & Boone, 2012). The data obtained from the questionnaire is presented in the form of tables and diagrams to determine the level of student readiness for online learning in the face of a corona pandemic situation.

## 3. Results and Discussion

### 3.1. Demographic profile of respondents

The demographic profile of respondents contains data on gender, semester level, and GPA in the previous semester. The results showed that the research respondents were dominated by women ( $n = 202$ ; 81.7%), while as many as men ( $n = 45$ ; 18.3%). The majority of respondents were in semester 2 ( $n = 89$ ; 36%), respondents at semester 4 level were ( $n = 62$ ; 25.1%), respondents at semester level 6 were ( $n = 52$ ; 21.1%) and respondents at the 8th semester level ( $n = 44$ ; 17.8%). They were also asked about their scores in the previous semester and it was found that the majority of respondents ( $n = 236$ ; 95.5%) had earned more than 3.00, as many as 9 (3.6%) had GPAs between 2.01 and 3.00, while there were 2 respondents (0.8%) who had a GPA of less than 2.00 in the previous semester (Table 1).

**Table 1. Respondent Demographic Composition**

No.	Demographic Variables	Frequency	Percentage (%)
1	Gender		
	Men	45	18.3
	Woman	202	81.7
2	Semester Level		
	Second semester	89	36
	Semester Four	62	25.1
	Semester Six	52	21.1

	Semester Eight	44	17.8
3	GPA (Previous Semester)		
	<2	2	0.8
	2.01 - 3.00	9	3.6
	3.01 - 4.00	236	95.5

### 3.2. Student readiness in online learning during the Covid-19 pandemic

Online learning has been applied long before the Covid-19 pandemic, but most teachers are more comfortable carrying out learning using traditional methods, namely face-to-face in class and providing direct learning material, teachers find it easier to carry out direct learning. However, due to the demands of the Covid-19 pandemic, inevitably learning is carried out online, therefore there are some teachers and students who are shocked by the learning process carried out online. The online learning process cannot be separated from the environment and adequate infrastructure, besides that it is also seen from the readiness of students mentally whether these students do online learning starting from the communication process both with teachers and friends, whether these students can control themselves and have the motivation for online learning. Therefore the researchers divided it into four major parts regarding the readiness of students in facing online learning consisting of digital literacy related to abilities in technology, independent learning, controlling in the learning process (learning control), and finally communication during the online learning process.

The results showed that the dimension that had a high score for vocational education students during COVID-19

was digital literacy with an average score of 3.77 (0.892). The level of digital literacy students feels able to carry out basic functions of Microsoft Office programs (MS Word, MS Excel, and MS PowerPoint), able to run software (computers/laptops) during online learning, able to use disbursement pages on the internet such as google and yahoo to search material sources and references as online learning, being able to use various internet platforms for face-to-face learning using various applications such as zoom, google meet, Webex, Microsoft team. The second level is independent learning ( $M = 3.47$ ;  $SD = 0.826$ ), learning that is carried out independently of students can carry out online learning when the teacher syncs (the teacher provides material) online through the learning management system, which can overcome difficulties when I do not understand the material provided by the teacher, being able to determine what learning objectives I should achieve according to the teacher's demands during online learning, have high confidence in the learning outcomes I achieve during the online learning process and be able to manage the time when online learning takes place.

The third level is communication during the online learning process ( $M = 3.34$ ;  $SD = 0.841$ ), students feel happy when communicating in online learning (email, discussions on learning management systems), students feel happy when posting questions or statements (ideas) in discussions that opened online. However, student control is the lowest ranking dimension on student readiness when doing online learning with an average score of 3.321 (0.917), the complete list can be seen in Table 2.

**Table 2. Readiness for Students' Online Learning During the Covid-19 Pandemic**

ID	Statement	M	SD
	<b>Digital Literacy</b>	<b>3.77</b>	<b>0.922</b>
LD1	I can perform basic functions of Microsoft Office programs (MS Word, MS Excel, and MS PowerPoint)	3.88	0.922
LD2	I can run the software (computer/laptop) while learning online	3.55	0.717
LD3	I can use disbursement pages on the internet such as google and yahoo to search for material sources and references for online learning	3.84	0.956
LD4	I can use various platforms on the internet for face-to-face learning using various applications such as zoom, google meet, webex, microsoft team	3.80	0.886
LD5	I was able to do and collect assignments given by the teacher which were done online by accessing the learning management system in online learning	3.70	0.922
LD5	I was able to access online learning media prepared by the teacher related to the laboratory learning process such as virtual laboratories, remote laboratories, expert systems	3.90	0.949
	<b>Independent Learning</b>	<b>3.47</b>	<b>0.826</b>
PM1	I was able to carry out online learning when the teacher synchronous (teacher provides material) online through the learning management system	3.54	0.798
PM2	I was able to overcome difficulties when I did not understand the material provided by the teacher, I explored various platforms and held open discussions in various online communities	3.43	0.761
PM3	I can determine what learning goals I have to achieve according to the demands of the teacher when learning online	3.74	0.717
PM4	I have high confidence in the learning outcomes I will achieve during the online learning process	3.62	0.672
PM5	I can manage the time when online learning takes place	3.03	1.186
	<b>Controlling in the Learning Process (Learning Control)</b>	<b>3.21</b>	<b>0.917</b>
LC1	I can control myself when the learning process is done online	3.03	1.070
LC2	I am not bothered by online activities (Facebook, Instagram, YouTube, surfing on the internet) when the learning process is done online	3.23	0.761

LC3	I can repeat the material provided by the teacher as needed, if I don't understand it I will repeat it until I understand the material in online learning	3.37	0.922
<b>Communication During the Online Learning Process</b>		<b>3.34</b>	<b>0.841</b>
K1	I feel happy when communicating on online learning (email, discussions on learning management systems)	3.47	0.886
K2	I have the pleasure of posting questions in discussions that are opened online	3.03	0.922
K3	I have the pleasure of posting statements or opinions in discussions that open online	3.53	0.717

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

Long before the Covid 19 pandemic, researchers had conducted research on online learning, some researchers defined that students' readiness in online learning especially in learning methods, students must be ready to use various types of technology and use the internet, independent student learning when carrying out online learning (Lee & Martin, 2017; Muktiarni et al., 2019). Some researchers have also developed 13 rating scales to measure students' readiness to carry out online learning, the assessments developed are especially on student attitudes and behavior during the online learning process. Other researchers also conducted studies and developed assessment indicators on student readiness in online learning self-learning and their level of comfort with online learning are two important factors that predict goal attainment learning (Martin et al., 2020). But these two factors actually cannot represent readiness in online learning, to more clearly understand the essence of student readiness when implementing online learning more broadly and deeply, research experts develop a wider range of indicators and assessments that can cover all aspects of online learning. Technical skills and high adaptability are needed by students in doing online learning using computers and technology, this is a factor in the performance of these students being able to do all types of work and tasks using computer software besides the demands in a web-based learning environment (Ghavifekr & Rosdy, 2015). Online learning is done in two parts synchronous and asynchronous, therefore the teacher is not always able to guide and provide material to students directly, students are required to be able to manage time and manage various types of work done online (Rapanta et al., 2020).

The readiness of students in implementing learning is a determining factor in the process of achieving successful learning. Indicators that can measure the level of readiness of students in online learning include readiness in digital literacy (computers and the internet, independent learning (managing time and time management), self-control, motivation in learning, and readiness in communication in the online learning process (Hung et al., 2010; Engin, 2017). Students are required to be able to manage time and manage various types of work done online (Nurkhamidah & Itsnaini, 2020; Fidalgo et al., 2020).

#### 4. Conclusion

The Covid-19 pandemic has made the learning process online, teachers and students must be ready to do online learning. Facilities and infrastructure must be very supportive of the online learning process, besides that student readiness is also an important factor for the success of online learning. The highest level of student readiness in

online learning is digital literacy, students are truly capable of mastering technological skills in the online learning process. The second level is independent learning, students can carry out learning independently outside the teacher's guidance, and can communicate which is done online. However, the lowest readiness is to control in the learning process (learning control), students have not been able to control themselves during the learning process.

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