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The Effectiveness of Online Learning during the Covid-19 Pandemic in Malaysia

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Abstract. The Movement Control Order (MCO) was implemented in Malaysia on 18 March 2020. The MCO has changed people's lifestyle to some extent because they have been advised to work from home. Due to this situation, the Malaysian Ministry of Education (MOE) implemented online learning methods throughout the MCO period to prevent the spread of the Covid-19 virus. Therefore, all schools have implemented online teaching and learning with the instructions of the MOE as a new norm to ensure that learning sessions are not delayed. The purpose of this study was to determine the level and factors of effectiveness of online learning for secondary school students studying economics subjects during the Covid-19 pandemic. This study used a quantitative research design employing a questionnaire as data collection instrument. The results show that the effectiveness of online learning for economics students is at a high level. The results of the survey illustrate that most students use mobile phones and laptops to attend classes that take place online. Furthermore, the study found that teacher factors are the main factors that influence the effectiveness of online learning among students. This research has implications for educators to apply online learning methods as a new normative teaching method to ensure compliance with the National Education Philosophy and the objectives of the Malaysia Education Development Plan 2013-2025.

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1. Introduction

Online learning and teaching is a new requirement and norm for educational institutions in Malaysia in the delivery of teaching, especially since the start of the Covid-19 pandemic. In this era of globalization, the latest technology brings great meaning in education. There is no denying that information and communication technology (ICT) plays an important role towards online learning, especially in the context of the Covid-19 pandemic. Normally, teachers use learning media applications such as Google Meet, Telegram, Google Classroom, and so on. However, factors such as internet access and environmental aspects need to be considered so that online learning can be carried out more smoothly and effectively. At the same time, these teaching and learning methods have challenged teachers to face this new normal. According to Hairia'an and Dzainudin (2020), teachers find it difficult to ensure that all students give feedback and work well together. Furthermore, to ensure that online teaching and learning can be implemented effectively, communication between teachers and parents is very important. With this situation, teachers need to provide organized information, such as lecture and training notes, as well as use a forum site so that they can communicate with their students. All this information is very helpful and important among students for generating a positive mindset towards online learning. This can directly encourage students to be involved in active learning and, finally, teaching and learning at home can be carried out more effectively.

The development of ICT has undoubtedly brought about transformation in the field of education towards digital pedagogy and andragogy (Irma et al., 2021). The implementation of online teaching and learning has long been done in Malaysia. For example, the Malaysian Ministry of Education (MOE) has introduced the use of the Frog Virtual Learning Environment (Frog VLE) and Digital Learning Platform. Concurrently, schools need to plan and prepare for the transformation of the teaching and learning process from this new policy so that the teaching process is centered on students and ICT. Perceptibly, the implementation of the policy by the MOE has had some effect in improving online learning. With this background, this study had the following research questions:

1. What online learning methods were used during the Covid-19 pandemic?
2. What factors affected the effectiveness of online learning during the Covid-19 pandemic?
3. What was the level of effectiveness of online learning during the Covid-19 pandemic?

2. Literature Review

In their study, Normah et al. (2017) focused on the role of smartphone applications in learning as a form of collaborative learning. The findings proved that students are more active and motivated to learn grammar topics in the field of learning and teaching Arabic with the use of the WhatsApp application. Learning through WhatsApp should be applied because it has advantages such as saving time and

easy access to information. According to Muhammad and Mumtazah (2021), the Google Meet application has become the main choice of teachers compared to other applications such as video-recording and Quizizz. However, online learning methods have posed challenges to teachers in terms of internet access and student concentration in the classroom. Ainul and Manisah (2021) examined the success factors of teaching and learning during the Covid-19 pandemic among special education teachers serving in Selangor. The findings of the study proved that the knowledge of special education teachers on information technology is a key factor in the success of the teaching and learning process that takes place online during this pandemic situation. The use of a variety of information technologies and multimedia can ensure that teaching and learning at home can be implemented effectively. A study by Siti et al. (2021) on 229 students at Hulu Langat Community College found that the level of effectiveness of online learning is very high. The evaluation of the level of effectiveness of online learning and teaching is based on five items. These are: motivational strategies used by lecturers, feedback from lecturers, general appearance of e-learning portals, interactions during learning, as well as online teaching content. However, any obstacles or problems that students face must be overcome immediately so that the effectiveness of online learning can be further enhanced.

Furthermore, a study by Salleh et al. (2021) involving 381 students at Politeknik Ibrahim Sultan used quantitative methods with a questionnaire instrument. The results of the study proved that online learning is less effective among students compared to face-to-face learning. Students are more receptive to face-to-face learning because they feel that face-to-face learning can improve their understanding and motivation to learn compared to online learning. However, online learning can be implemented effectively if the facilities and equipment are complete and perfect. Meanwhile, Syed (2017) proved that students at the Faculty of Education and Social Sciences at the University of Selangor have a positive perspective on e-learning via WhatsApp and Telegram. In addition, students believe that learning using WhatsApp and Telegram is affordable and improves the marketability of graduates and enhances the image of the institution. A study by Che In and Ahmad (2019) proved that online teaching methods, such as the use of the Kahoot application, is effective in learning. The use of Kahoot in the form of revisions, online assignments, and drills can stimulate students to learn the marketing mix. In addition, the findings also showed that this teaching method can increase students' interest. As such, teaching by using Kahoot can increase the effectiveness of online learning. Students using Google Classroom as a learning platform in Islamic education courses are also positive and satisfied with using the application in learning. The effective and widespread use of Google Classroom can help achieve the criteria of the Malaysia Education Development Plan 2013–2025 (Noorwati et al., 2021).

There are many platforms through which to conduct online learning, yet implementing it is not as easy as expected. According to Wong and Khairul (2020), implementation demands commitment and cooperation from all parties, especially in terms of knowledge and skills related to information technology for the continuation of the teaching and learning process. Losius (2020) found that

29% of teachers are still not proficient in handling online learning due to not being proficient in using ICT applications. This being the case, the level of knowledge of teachers in using technology was very important in ensuring that teaching and learning online ran smoothly and attracted students to undergo the learning process carried out by teachers during the Movement Control Order (MCO) period (Hairia'an & Dzainudin, 2020). The level of student readiness to face online teaching and learning is important because they are the main subjects in the teaching and learning conducted. According to Muniroh et al. (2020), even though the teachers are eager to prepare various teaching materials, if there is no participation from the students, then the learning outcomes or objectives cannot be achieved perfectly.

According to Mohd et al. (2020), students have a strong desire for learning, but the online teaching and learning process comes with various obstacles that hinder the learning process. These are weak internet connection, problems with the device used, and learning time. Constraints are also faced by students when they are not able to adapt to online classes due to the different atmosphere from the daily face-to-face classes. Siti et al. (2021) found that among the obstacles faced by students in online teaching and learning are poor internet access, a home environment not conducive to learning, difficulty adapting to e-learning, and the quality of teacher teaching when implementing teaching and learning online. Therefore, to attract interest and increase the level of student involvement during the online teaching and learning process, teachers can use various online teaching methods in addition to providing interesting and appropriate learning materials, whether in the form of videos, worksheets, animations, and so on.

3. Methodology

A quantitative approach with a questionnaire as research instrument was employed to collect data on the perceptions of students regarding online learning during the Covid-19 pandemic. The selection of respondents focused on Form 4 students taking economics subjects at Sekolah Menengah Kebangsaan Simpang, Malaysia. In all, 52 Form 4 students were selected as respondents in the research. A questionnaire was used to obtain respondents' perceptions on the effectiveness of learning conducted online during the pandemic. Respondents were required to show sincerity and honesty in answering all the questions posed in the questionnaire. The questionnaire is a popular form of research instrument for researchers because of its wide coverage and concise content. Through the questionnaire, respondents can answer the relevant questions according to the appropriate time. In this study, the questionnaire was employed to determine the perceptions and views of economics students on the effectiveness of online learning during the pandemic.

The questionnaire comprised four sections (A-D), where Sections C and D used a five-point Likert scale (Appendix 1). Section A was concerned with the demographic information of the respondents. Meanwhile, Section B was related to the methods used by the respondents to access online learning. Furthermore, Section C examined the factors that influenced the effectiveness of online learning during the pandemic situation. The last section, Section D, was related to the level

of effectiveness of online learning among the respondents. The questionnaire was constructed and adapted from past research that is directly relevant to the current study phenomenon. For Section B, the questions were adapted from the study of Munirah et al. (2021), while questions for Section C were adapted from Janarthini et al. (2011). Finally, Section D was adapted from Siti et al. (2021) and Mahizer (2007).

Reliability involves criteria for determining the consistency of the score of each item. Therefore, data obtained through a pilot study should be analyzed using percentages and frequencies to obtain reliability values. This study used Cronbach's alpha to determine the reliability value of the questionnaire items. Azrilah et al. (2008) stated that the validity and reliability of the research instrument are very important to maintain the accuracy of the instrument in providing consistent results. These two procedures cannot be ignored and are interconnected with each other. The higher the validity and reliability, the more accurate the data obtained to produce quality results. Fraenkel and Wallen (2005) argued that validity relates to the accuracy, importance, and usability of the research tool to be able to draw conclusions from the data. Validity is very important in research. Instrumental validity in research ensures that items are defensible, accurate, coherent, meaningful, and usable. In general, when research has high validity, this means that the results obtained are based on evidence and facts and can provide true justification in the research study. Reliability is a criterion for determining the consistency of the score of each item. Therefore, the data obtained through the pilot study need to be analyzed using percentages and frequencies to obtain a reliability value. In this study, we used Cronbach's alpha to determine the reliability value of the pilot study. Cronbach's alpha is a measure of consistency of the reliability of a research instrument. Typically, Cronbach's alpha values above .60 are said to have a moderate level of reliability and can be used as indicator to measure the reliability of the instrument. On the other hand, a Cronbach alpha value lower than .60 is regarded to indicate a low level of reliability and is unacceptable. Thus, any item with a value lower than .60 needs to be deleted or modified. Table 1 indicates the size coefficients of Cronbach's alpha in the pilot study.

Table 1: Cronbach alpha values obtained in the pilot study

Variable	Cronbach alpha value
Factors affecting online learning	
1. Teacher factors	.821
2. Home learning environment factors	.778
3. Learning equipment factors	.842
4. Teaching content factors	.794
5. Learning process factors	.883
Level of effectiveness of online learning	
1. Online learning content	.842
2. Interaction during learning	.850
3. Teacher feedback	.914
4. Motivation strategies used by teachers	.882
5. Appearance of online website portal	.853

Regarding factors affecting online learning, the Cronbach alpha value for the first variable, teacher factors, was .821. Meanwhile, the second and third variables, namely home learning environment factors and learning equipment factors, recorded Cronbach alpha values of .778 and .842, respectively. Finally, the Cronbach alpha values for the fourth and fifth variables, namely teaching content factors and learning process factors, were .794 and .883, respectively.

Then, for factors of level of effectiveness of online learning, the Cronbach alpha value for the first variable, namely online learning content, was recorded at .842. The second and third variables, namely interaction during learning and teacher feedback, obtained Cronbach alpha values of .850 and .914, respectively. Finally, the motivation strategy variables used by teachers and the general appearance of the online learning portal recorded Cronbach alpha values of .882 and .853, respectively. In conclusion, the percentage value of the questionnaire in terms of validity and reliability was at a high and reliable level. The pilot study showed that the questionnaire items were clear and easy to understand and achieved the objectives of the study.

4. Findings

4.1 Descriptive Analysis of Frequencies and Percentages

Table 2 displays the frequencies and percentages of respondents per location of online learning, with locations being divided into urban and rural. The table shows that 34 respondents (65.4%) were from urban areas during online learning, while 18 (34.6%) were from rural areas. It can therefore be concluded that more students live in urban than in rural areas.

Table 2: Frequencies and percentages of respondents by location of online learning

Online learning location	Frequency	Percentage	Valid percentage	Cumulative percentage
Urban	34	65.4	65.4	65.4
Rural	18	34.6	34.6	100
Total	52	100	100	

Table 3 presents the frequencies and percentages of respondents according to having their own laptop that can access the internet during online learning. Of the 52 respondents, 47 (90.4%) had their own laptop to access the internet during online learning. On the other hand, 5 (9.6%) indicated that they did not have their own laptop to access the internet for online learning during the Covid-19 pandemic period. As such, it can be concluded that most students have their own laptop.

Table 3: Frequencies and percentages of respondents according to having their own laptop that can access the internet

Laptop to access internet	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	47	90.4	90.4	90.4
No	5	9.6	9.6	100
Total	52	100	100	

The frequencies and percentages of respondents according to having internet access problems during online learning are displayed in Table 4. Based on the data obtained, 31 respondents (59.6%) stated that they faced internet access problems during online learning. On the other hand, 21 respondents (40.4%) indicated that they did not face internet access problems during the online learning period.

Table 4: Frequencies and percentages of respondents according to having internet access problems during online learning

Internet access problems	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	31	59.6	59.6	59.6
No	21	40.4	40.4	100
Total	52	100	100	

Table 5 shows the frequencies and percentages of respondents as per their level of ICT knowledge and skills. Respondents could choose between yes or no. The data showed that 31 respondents (59.6%) indicated that they had a level of knowledge and skills in the field of ICT, while 21 (40.4%) indicated that they did not. It can thus be concluded that most economics students have ICT skills.

Table 5: Frequencies and percentages of respondents according to ICT skills

ICT skills	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	31	59.6	59.6	59.6
No	21	40.4	40.4	100
Total	52	100	100	

Table 6 presents the frequencies and percentages of respondents as per their view of the need for online learning during the Covid-19 pandemic. Most respondents (n = 49; 94.2%) agreed that online learning was a particular need during the Covid-19 pandemic. Contrarily, three respondents (5.8%) felt that online learning was not required in this situation.

Table 6: Frequencies and percentages of respondents according to their view of the need for online learning

View of need for online learning	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	49	94.2	94.2	94.2
No	3	5.8	5.8	100
Total	52	100	100	

Table 7 illustrates the frequencies and percentages of respondents according to the method of accessing online learning. Respondents could select between eight categories of methods. These were: (1) computer, (2) laptop, (3) computer and laptop, (4) mobile phone, (5) mobile phone and computer, (6) mobile phone and laptop, (7) mobile phone, computer, and laptop, and (8) mobile phone, computer, laptop, and other.

Table 7: Frequencies and percentages of respondents according to the method of accessing online learning

Method of accessing online learning	Frequency	Percentage	Valid percentage	Cumulative percentage
1 Computer	0	0	0	0
2 Laptop	7	13.5	13.5	13.5
3 Computer and laptops	3	5.8	5.8	19.2
4 Mobile phone	6	11.5	11.5	30.8
5 Mobile phone and computer	1	1.9	1.9	32.7
6 Mobile phone and laptop	29	55.8	55.8	88.5
7 Mobile phone, computer, and laptop	3	5.8	5.8	94.2
8 Mobile phone, computer, laptop, and other	3	5.8	5.8	100
Total	52	100	100	

Based on the analysis of the findings, use of the mobile phone and laptop recorded the highest score among respondents ($n = 29$; 55.8%). Thus, the analysis showed that most respondents used the mobile phone and laptop to access online learning sessions. This category was followed by the use of the laptop only to access online learning ($n = 7$; 13.5%). Furthermore, six respondents (11.5%) indicated using the mobile phone only to access online learning. The third, seventh, and eighth categories each recorded the same response, with three respondents (5.8%) for each category indicating using these methods to access online learning. Only one respondent (1.9%) used the mobile phone and computer to access e-learning during the Covid-19 pandemic. On the other hand, no respondents used the computer alone to access online learning.

4.2 Analysis of Factors Influencing the Effectiveness of Online Learning

This study was conducted to examine the factors that influenced the effectiveness of online learning for students during the Covid-19 pandemic. Table 8 shows the mean values for the factors that influenced the effectiveness of online learning. For this study, the following factors were measured as per how they influenced the effectiveness of online learning as perceived by the respondents: (1) teacher factors, (2) home learning environment factors, (3) learning equipment factors, (4) teaching content factors, and (5) learning process factors.

Table 8: Factors influencing the effectiveness of online learning

Variable	Mean
1 Teacher factors	4.35
2 Home learning environment factors	3.78
3 Learning equipment factors	4.15
4 Teaching content factors	4.09
5 Learning process factors	3.84

The study found that all factors had a mean score of more than 3. Individual mean scores were as follows: teacher factors (4.35), home learning environment factors (3.78), learning equipment factors (4.15), teaching content factors (4.09), and, finally, learning process factors (3.84). Teacher factors recorded the highest mean

score of 4.35. Therefore, teacher factors are a major factor influencing the effectiveness of online learning, more so than the other factors. This shows that the teacher's role is very important to encourage and motivate students towards the use of online teaching and learning in this new norm. This implies that teachers played a huge role in respondents accessing online learning. This shows that most respondents did online learning due to the teaching materials that are uploaded being easy to understand, the language used by the teacher being appropriate, and the teacher being a friendly person who is easy to contact in online learning.

4.3 Analysis of the Level of Effectiveness of Online Learning

This research was conducted to identify the level of effectiveness of online learning during the Covid-19 pandemic. Table 9 shows the mean scores for the results on the level of online learning effectiveness. This was measured in five aspects: (1) online learning content, (2) interaction during learning, (3) teacher feedback, (4) motivational strategies used by teachers, and (5) general appearance of online learning portal.

Table 9: Mean scores of levels of effectiveness of online learning

Level of effectiveness of online learning		Mean
Variable		
1	Online learning content	3.99
2	Interaction during learning	3.78
3	Teacher feedback	4.14
4	Motivational strategies used by teachers	4.06
5	General appearance of online learning portal	4.21

The study found that all factors had a mean score of more than 3. Individual mean scores were as follows: online learning content (3.99), interaction during learning (3.78), teacher feedback (4.14), motivational strategies used by teachers (4.06), and general appearance of online learning portal (4.21). The variable of general appearance of the online learning portal recorded the highest mean score of 4.21. This shows that the general appearance of learning portals plays an important role in online learning to attract students to use them. It can thus be implied that most students know how to access online learning portals and can access learning portals easily.

The overall mean score of the results in terms of factors and level of effectiveness of online learning was very high, exceeding 3.70. Based on the results of the survey, it can be concluded that the level of effectiveness of online learning is high. This study used tables to present the data for easy comprehension. Findings were presented for the demographic data of respondents, methods used to access online learning, factors influencing the effectiveness of online learning, as well as the level of effectiveness of online learning during the Covid-19 pandemic. The results of the study illustrated that teacher factors are the main factors that influence online learning. Furthermore, the general appearance of online learning portals recorded the highest score for online learning effectiveness followed by teacher feedback. The level of effectiveness was identified through a questionnaire instrument, where most student respondents provided positive feedback on online learning.

5. Discussion

In general, the results of the study showed that most respondents used both the mobile phone and laptop as method of accessing online learning during the Covid-19 pandemic period. Of the 52 respondents, 29 (55.8%) indicated using this method. It can thus be concluded that most students have the convenience and equipment of the mobile phone and laptop at home to follow online classes. However, good internet access is also important to ensure that online learning can be carried out more effectively and efficiently. The findings of this study are in line with that of Munirah et al. (2021), who found that most engineering science students at Politeknik Ibrahim Sultan use the mobile phone and laptop as method of accessing learning that takes place online. According to Santoso and Wyn (2014), the concept of online learning (e-learning) is a transformation process in the field of education. E-learning is transforming conventional education to digital forms of education with information technology to improve the quality of education. This teaching concept is categorized by the use of information technology and is also a requirement of the approach in the field of education in this post-independence era (Santoso & Wyn, 2014).

The findings are also supported by the study conducted by Hairia'an and Masayu (2020), who explained that the use of ICT in education is an effective and efficient teaching option. This teaching method can make it easier for students, where they can access learning content anywhere and can repeat studies according to their own convenience. The announcement of the implementation of teaching and learning at home has changed the conventional learning method to a method of using information technology and it can directly improve the quality of education in Malaysia. According to Nur and Nurfaradilla (2021), online learning can provide benefits and advantages from the aspect of time freedom as well as the ease of accessing various online learning and teaching materials. Online learning can encourage critical and creative thinking, increase knowledge and interactivity, and generate interest and motivation among students.

The results of the study showed that among the factors that affect the effectiveness of a student in online learning, teacher factors obtained the highest mean score of 4.35. This shows that the teacher's role is very important to encourage and motivate students towards the use of online teaching and learning in this new norm. Thus, it was found that respondents accessed online learning due to the teacher functioning at the maximum level. This illustrates that most respondents did online learning due to the uploaded teaching materials being easy to understand, the use of the teacher's language being appropriate, and the teacher being a friendly person who is easy to contact in online learning. These results can be supported by that of Kearsley et al. (1995), which showed that teacher involvement is one of the factors that influences student participation in online learning. In addition, teacher involvement is also an important element in influencing students to participate in online learning to ensure that teaching and learning at home can be carried out effectively and smoothly (Ahmad & Hamzah, 2021).

Next, learning equipment factors had the second highest mean score (4.15) for factors influencing the effectiveness of online learning. This shows that, in addition to the role of the teacher, the equipment used in online learning is also very important and necessary. Based on the results of the items in the learning equipment factors, most respondents can browse the internet easily and have equipment such as headphones, microphones, and computer screens that are suitable for online learning. These findings are also supported by Hendrastomo (2008), who stated that infrastructure such as internet and computer networks are considered important as components to support the success of online learning. Furthermore, the overall average score for teaching content factors ranked it third, with an average of 4.09. Most students participate in online learning because the teaching content provided is systematic, and because the variety of multimedia elements, such as tests, quizzes, assignments, etc., helps students to complete their work. Based on research by Butt (2014), the importance of content in e-learning websites cannot be denied, because it can have an impact on learning. Teaching content is an important element to attract students' interest in online learning (Tune et al., 2013).

Regarding aspects related to the effectiveness of online learning, the general appearance of the online learning portal recorded the highest overall mean of 4.21. This shows that the general appearance of the learning portal plays an important role in online learning to attract students to use it. This suggests that most students know how to access the online learning portal and can access the learning portal easily. These results are consistent with past research conducted by Lynch and Lodge (2002), who stated that students will be passionate and enthusiastic to engage in e-learning if the interface is designed in an orderly and attractive manner. Interaction during learning is very important to improve students' understanding of learning. The results of this study also agree with the study conducted by Wu and Hiltz (2004) on 116 students at the New Jersey Institute of Technology, showing that online learning can be beneficial in improving the quality of teaching and learning skills among school children.

6. Conclusion

In summary, this study described in detail findings on the demographic data of respondents, methods used to access online learning, factors influencing the effectiveness of online learning, as well as the level of effectiveness of online learning during the Covid-19 pandemic. The results of the study illustrated that teacher factors are the main factors that influence online learning. Furthermore, in this study, the general appearance of online learning portals recorded the highest score for level of effectiveness followed by teacher feedback. The level of effectiveness was determined through a questionnaire, where most student respondents provided positive feedback on online learning. Overall, the study found that the effectiveness of online learning for economics students is at a high level. Online learning has been a major necessity since the Covid-19 outbreak. Changes in the teaching and learning process with the use of information technology must be implemented effectively to create learning in line with 21st century learning. It is hoped that the findings of this study may influence future

researchers positively as well as contribute to improving the quality of education so that Malaysian education can move in a more advanced direction.

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Appendix 1

Part C: Factors that affect the effectiveness of online learning

Instructions: Mark (/) in the column provided for each item based on the score chart in the table below.

LEVEL	ABBREVIATIONS	SCORE
Strongly disagree	STS	1
Do not agree	TS	2
Not sure	TP	3
Agreed	S	4
Strongly Agree	SS	5

No.	Question	Score				
		1	2	3	4	5
A. Teacher factor						
1.	Teachers provide teaching materials using appropriate and easy-to-understand language in online learning.					
2.	Teaching materials uploaded by teachers in e-learning websites can help me understand certain subjects.					
3.	The teacher is friendly and easy to contact in online learning.					
B. Environmental Factors of Learning at Home						
1.	The learning environment at home is comfortable i.e. not too noisy or quiet.					
2.	The light is bright enough and doesn't interfere with my vision.					
3.	The arrangement of the facilities in the learning place is appropriate and does not interfere with movement.					
C. Learning Tools Factor						
1.	I can surf the internet easily.					
2.	Equipment such as <i>headphones</i> and <i>microphones</i> provided can help in the online learning process.					

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3. The computer screen provided is suitable for online learning.
-

D. Teaching Content Factors

1. The variety of multimedia elements used for the purpose of delivering learning content online is effective.
-
2. The teaching content in online learning does not trouble or confuse students.
-
3. The teaching content provided can help students in their work (eg: assignments, quizzes, tests and others).
-

E.	Learning Process Factors						
	1.	The online learning process can increase student knowledge.					
	2.	Students can understand difficult concepts with online learning.					
	3.	I feel comfortable facing the computer while the online learning is going on.					

Part D : Level of Effectiveness of Online Learning

Instructions: Mark (✓) in the column provided for each item based on the score chart in the table below.

LEVEL	ABBREVIATIONS	SCORE
Strongly disagree	STS	1
Do not agree	TS	2
Not sure	TP	3
Agreed	Q	4
Strongly Agree	SS	5

No	Question	Score				
		1	2	3	4	5

A. Online Learning Content

1. The teaching content delivered online helped me understand difficult things better.
2. Reference materials (eg: links, notes) are very helpful in the course.
3. The content presented online increased my level of understanding.

B.	Interaction during learning						
	1.	The interaction between teachers and students online is very helpful for me.					
	2.	The interaction between friends during online learning helped a lot to improve my understanding.					
	3.	Many of my friends interact with each other during online learning.					
C.	Teacher feedback						
	1.	The teacher gave immediate and clear feedback to my questions.					
	2.	The teacher gave the answer I wanted.					
	3.	I understand the feedback given by the teacher.					

D.	Motivational strategies used by teachers						
	1.	Teachers provide motivation by encouraging all students to participate in online learning.					
	2.	The teacher encouraged me to take part in the discussion found in online learning.					
E.	The general appearance of the online learning portal						
	1.	I know how to access the online learning portal. (eg: <i>Google Classroom</i>)					
	2.	I can easily access the online learning portal.					