

PARENT'S PERCEPTIONS ON E-LEARNING DURING COVID-19 PANDEMIC IN INDONESIA

Andre Hasudungan Lubis¹, Zulkarnain Lubis²

¹Faculty of Engineering, Universitas Medan Area, Indonesia

²Faculty of Agriculture, Universitas Medan Area, Indonesia

Email: andrelubis2201@gmail.com¹

ABSTRACT: The COVID-19 pandemic has forced the schools to conduct non – physical education progress. As the only way to runs the learning process, E-Learning is selected as the component while social distancing was applied. However, parents as influential support for students are resistant to technology due to certain reasons. The article excavates parents' perception of E-Learning through driver, satisfaction, barrier factor. A total of 257 respondents were asked regarding this issue by using a web-based survey and the descriptive statistic is employed for the analysis. Results indicated that participants were overall dissatisfied with the implementation of E-Learning during the pandemic. Parents claimed that the poor of ICT infrastructure (e.g. the Internet, digital devices, electricity) and lack of technology skills become the barriers for their children to use E-Learning. Parents also considered that traditional learning is preferable to online learning.

KEYWORDS: E-Learning, Parents' Perception, COVID-19 Pandemic, Satisfaction, Indonesia.

I. INTRODUCTION

As stated by WHO, the coronavirus disease 2019 (COVID-19) has become a pandemic in March 2020 due to the higher risk of its impact on numerous sectors (WHO, 2020). The implications of the COVID-19 have been a touch on economic, agriculture, manufacturing, tourism, also education (Nicola et al., 2020). Besides, the pandemic becomes a new challenge for several countries to run the education sector (Daniel, 2020). School closure is one method to be applied to disrupt virus transmission by reducing social contacts among students (Bayham & Fenichel, 2020). This is due to the COVID-19 has been affected by the entire level of the education system (Nicola et al., 2020). Other than that, educational institutions should prepare students' needs for their participation in learning, including management, mechanism, system, curricula, and sources (Daniel, 2020).

As one of the countries affected by the COVID-19 pandemic, the Indonesian government issued a policy to temporarily canceled the traditional learning and replaced it with online learning (Pujilestari, 2020). E-Learning is selected to become the tools to support the learning process during the COVID-19 pandemic (Mailizar et al., 2020). However, E-Learning is not run optimally due to lack of sources, lack of skill and knowledge, and many institutions are less prepared the online learning (Zaharah et al., 2020). Despite that, many students are agreed and confirm this technology to be used as the learning tool while social distancing is arranged (Khasanah et al., 2020). Apart from that, parents play an important role in E-Learning usage by their children. Parents' positive attitude (e.g. understanding, support, and monitoring) towards E-Learning is considered to strengthen students' learning process (Kong, 2018). Moreover, according to the Indonesian Child Protection Commission, many parents in Indonesia protest to online learning policy during the COVID-19 pandemic. Parents are pressed to be fully controlled by their children rather than holding traditional learning (JawaPos, 2020; Kumparan, 2020). Therefore, it is important to discover the parents' perception while E-Learning is used by their children during COVID-19 pandemic.

II. LITERATURE REVIEW

Traditional Learning VS E-Learning

Learning methods have been shifting into different forms along with time and technology development. The utilization of several electronic means has been changed the traditional learning into a new method called E-learning (Allen & Seaman, 2008). Several institutions have been claimed that E-Learning is a proper learning method (Gros & García-Peñalvo, 2016), which is a new paradigm of education with the usage of ICT (Information and Communication Technology) as the tools to allow educators and learners to deliver or sharing knowledge, and communicate each other (Sangrà et al., 2012). However, many kinds of research claimed a *two coins* perspective on the effectiveness

of E-Learning and traditional learning. Some studies declared that E-Learning is better than the traditional one and vice versa. Hence, there are pros and cons between these learning methods and bring critical arguments among experts (Odhaib, 2018).

Some say that E-Learning requires low cost for the implementation, but other researchers claimed that the usage of this technology is expensive. Nevertheless, traditional learning requires some extra cost. In an E-Learning method, physical availability is not required. Meanwhile, students are obliged to attend a class for the traditional learning method. Then, the learning process in E-Learning can be repeated many times as students can access the recorded educator’s teaching which saved on a certain website or server. But, traditional learning only performs a one-time learning process in the classroom. However, traditional learning gives the educator to have full control of his/her students. Compared to this, E-Learning deals with the students to having full control over them. Moreover, the students–teacher interaction on E-Learning occurs while they are online or connected on the Internet. On the other hand, the feedback between students and educators is received immediately (Nazarenko, 2015). The comparisons between traditional learning and E-Learning as listed in Table 1.

Table 1: Comparison between E-Learning and Traditional Learning (Gros & García-Peñalvo, 2016).

Variables	E-Learning	Traditional Learning
Cost benefit	Yes	No
Physical availability	No	Yes
Interpersonal skills	No	Yes
Improve interaction	No	Yes
Repeated teaching	Yes	No
Student control	Self-control	Teacher

According to Table 1, E-Learning implementation causes a non–physical activity among students and teacher, hence it also impacting the lack of interaction among them. Then, E-Learning is not providing room for educators to enhance students’ interpersonal skills. Despite this, E-Learning is worthier than traditional learning in cost and the ability to access the learning content repeatedly.

Parents’ Perception on E-Learning

The implementation of E-Learning also depends on community involvement, especially by parents. In simple words, students’ performance in using E-Learning is able to improve through attention from their parents (Kong, 2018). Parents’ control on their children while using technology is crucial (Eysenck, 2014), then their roles for supporting the utilization of E-Learning by their children is also considered to become bolster for them. Hence, parents’ perception of E-Learning usage is important to be noticed (Abdallah, 2018).

Furthermore, (Abdallah, 2018) determined the parents’ perception of E-Learning in six dimensions, namely student computer competence, teacher computer competence, quality of teaching and learning, curriculum, school environment, and students’ personal development. According to (Abdel-Maksoud, 2019), perception of E-Learning can be determined through three factors, namely what drives users to use it, how satisfied were users in using it, and what kind of barriers that occur in implementing it. The driver factors of E-Learning usage usually come from how the benefit of the technology on students’ learning process improvement. Moreover, the satisfaction of E-Learning usage is described by users’ positive attitude towards the technology. Then, barriers in E-Learning utilization is related to the technical and practical issues (Abdel-Maksoud, 2019). Table 2 illustrates the factors to describe parents’ perception of E-Learning.

Table 2: Parents’ Perception of E-Learning.

Factor	Author
Student Computer Competence	(Abdallah, 2018)
Teacher Computer Competence	
Quality of Teaching and Learning	
Curriculum	
School Environment	
Students’ Personal Development	
Driver (Learning Process Improvement)	(Abdel-Maksoud, 2019)
Satisfaction (Positive Attitude)	
Barrier (Technical and Practical Issues)	

III. METHODOLOGY

Research Population

The population of this study includes 500 respondents. However, the research negated the participants' demographic characteristics (i.e. age, sex, occupation), due to the study is only emphasizing on parents perception in general.

Data Collection

The study used the primary data which were distributed online directly to all respondents. Then, the study uses a quantitative approach which is the variable values that can be expressed in numbers. A total of 500 questionnaires have been distributed among research respondents randomly from students' parents of primary school, junior high school, and senior high school in Indonesia. However, there were only 300 respondents who sent back or responded back to the researchers. In addition, there were only about 257 respondents who were used as research objects. This is caused by any errors in the data at the time of data collection. All respondents in this study were voluntary and anonymous.

Instrument Development

The research is focused of parents' perception on E-Learning. Hence, the study has adopted the instrument from (Abdel-Maksoud, 2019) with some modification. Table 3 shows a list of questions in the study.

Table 3: List of Items in Questionnaire.

Variables	Questions	Item Code
Factor Driver	In my opinion, my child can understand the learning material even though the learning process is carried out using E-Learning.	D01
	In my opinion, my child feels happy when he/she learns by using E-Learning.	D02
	In my opinion, my child can easily to get the learning resources while using E-Learning.	D03
	In my opinion, my child can still concentrate while learning by using E-Learning.	D04
	In my opinion, my child can develop his technological competence while he/she use E-Learning.	D05
	In my opinion, E-Learning can help improve my child's communication skills.	D06
	In my opinion, E-Learning can help to arrange my child's learning schedule.	D07
	In my opinion, E-Learning is more beneficial than traditional learning in school for my child.	D08
Satisfaction	In my opinion, learning through E-Learning is contributing the personal development of my child.	S01
	In my opinion, learning through E-Learning is able to develop my child's skills.	S02
	I feel comfortable when my child participates in using E-Learning.	S03
	I would recommend this E-Learning to others to use.	S04
	Overall, I am satisfied while my child is using E-Learning.	S05
Barrier	In my opinion, the lack of a child's ability to use various types of technology is a barrier for him/her to use E-Learning.	B01
	In my opinion, the lack of digital devices (cellphones, smartphones, laptops, tablets, etc.) is a barrier for my child to use E-Learning.	B02
	In my opinion, the Internet connection is a barrier for my child to access E-Learning.	B03
	In my opinion, the limitations of the electricity are also a barrier for my child to access E-Learning.	B04
	In my opinion, the absence of a mentor/instructor is a barrier for my child to use E-Learning.	B05

According to Table 3, there are 18 items of the questionnaire used in this study. A Likert-type scale applied in the questionnaire used from 1 to 5 (with response options as strongly disagree, disagree, neutral, agree, and strongly agree). Then, the Pearson Correlation was used by calculating the value

correlation coefficient between each item and the total item to determine the validity of the instrument (Lubis & Osman, 2015). Correlation coefficients ranged between 0.587 and 0.888, and all were significant at the 0.000 level. Table 4 shows the validity of the survey items.

Table 4: Correlation Coefficients between Each Item and Total Item.

Variables	Item Code	Coefficient Correlation	p-value
Driver	D01	0.743	0.000
	D02	0.752	0.000
	D03	0.750	0.000
	D04	0.820	0.000
	D05	0.679	0.000
	D06	0.705	0.000
	D07	0.751	0.000
	D08	0.691	0.000
Satisfaction	S01	0.791	0.000
	S02	0.818	0.000
	S03	0.847	0.000
	S04	0.873	0.000
	S05	0.888	0.000
Barrier	B01	0.645	0.000
	B02	0.804	0.000
	B03	0.830	0.000
	B04	0.831	0.000
	B05	0.587	0.000

As shown in Table 4, all of the items have good validity with a proper significant level. Furthermore, the study also tests the reliability of the instrument by using Cronbach Alpha (α) score for each item. Cronbach's Alpha (α) values are classified based on their reliability classification index. The instrument can be categorized as very good reliability if the value is more than 0.9, then if the value obtained is between 0.8 to less than 0.9, then it can be said to have good reliability.

The determination of instruments can be categorized as having quite good reliability if it has a value between 0.7 and 0.8, However, if the value of alpha (α) is between 0.6 or less than 0.7 then the instrument can still be used even if it is not good, and if it is less than 0.6, then it is considered as a poor instrument (Hair Jr et al., 2016). The reliability assessment of the measuring instrument can be seen in Table 5.

Table 5: Reliability Test Result.

Variables	Items	Cronbach's Alpha (α)
Driver	8	0.879
Satisfaction	5	0.889
Barrier	5	0.797
Survey	18	0.889

According to Table 5, the Driver variable has 0.879 of the alpha (α) value and can be classified as good reliability. Similarly, the Satisfaction variable is also has good reliability with the alpha (α) value as much as 0.889. Then, the Barrier variable has quite good reliability with the alpha (α) value as much as 0.797. Moreover, the reliability test for the survey produces a good level of reliability ($\alpha > 0.80$), which has a value of 0.889.

IV. RESULTS

Driver Factor

Firstly, the study analyzes the descriptive statistic of the Driver factor with a total of 8 questions. Table 6 shows respondents' responses to each item of this variable.

Table 6: Drive Factor in Using E-Learning.

Item	Responses					Mean
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
D01	14	62	83	82	16	3.09
D02	21	73	88	59	16	2.90
D03	14	69	67	79	28	3.14
D04	27	91	60	62	17	2.80
D05	14	36	70	95	42	3.44
D06	28	70	70	73	16	2.91
D07	24	65	69	75	24	3.03
D08	86	99	53	13	6	2.04
Total						2.98

Table 6 shows that item D01 has an average mean score as much as 3.09. The majority of parents claimed that students are able to accept the learning material even the learning process is conducted by using E-Learning. Then, item D02 has a low mean score (2.90). Most parents are stated that their children were feeling unhappy while using E-Learning. Item D03 has a high mean score with a value of 3.14.

Despite students are feeling unhappy in using E-Learning, they were easy to get the learning resources from that technology. Similar to item D02, item D04 also has a low mean score (2.80). Respondents mostly disagree that the students are able to concentrate while learning through E-Learning. In other words, traditional learning gives a better opportunity for students to be more concentrate in learning rather than using E-Learning.

Meanwhile, item D05 has the highest mean score with a value of 3.44. Parents are agreed that E-Learning helps their children to improve their technological skills. Item D06 has a similar mean score with item D02 as much as 2.91. Most respondents were expressed the average answer from the question. Hence, students' communication skill is not overmuch improved while using E-Learning. Furthermore, item D07 has a modest mean score with a value of 3.03. Thus, E-Learning is not very influential to arrange students' learning schedules. Item D08 has the lowest mean score with a value of 2.04. Parents are claimed that traditional learning is more beneficial than E-Learning. Lastly, the overall mean score of the Driver variable is 2.98. Therefore, it can be concluded that parents are resistant to E-Learning. Respondents agreed that E-Learning is only helping the students to increase the technological skill. On the learning process aspect, parents stated that E-Learning is not really boosting the students' performance.

Satisfaction Factor

The study then analyzes the descriptive statistic of the Satisfaction factor with a total of 5 questions. Table 7 shows respondents' responses to each item of this variable.

Table 7: Satisfaction Factor in Using E-Learning.

Item	Responses					Mean
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
S01	30	91	79	49	8	2.66
S02	25	63	76	82	11	2.96
S03	26	64	76	72	19	2.97
S04	33	71	88	49	16	2.78
S05	30	72	90	51	14	2.79
Total						2.83

Based on Table 7, item S01 has the lowest mean score (2.66). Most parents claimed that students' personal development cannot be improved by using E-Learning. Then, the mean score of item S02 is also classified as a low rank with a value of 2.96. Despite E-Learning is able to improve the students' technological skill, their general skills is unable to be upgraded. Parents are assumed that traditional learning in the classroom general is the right place to enlarge skill for their children. Similar to item S02, item S03 has a low mean score with a value of 2.97. The majority of respondents were feeling uncomfortable while their children are using E-Learning rather than traditional learning in school.

Moreover, item S04 and item S05 have an equal mean score, namely 2.78 and 2.79. Parents were not recommending E-Learning to others to use to replace traditional learning, and they also dissatisfied with E-Learning. The overall mean score of the Satisfaction variable is at 2.83. Thus, the result pointed out that parents are feeling dissatisfied while their children using E-Learning as a replacement for traditional learning.

Barrier Factor

The last step in this study is to analyze the descriptive statistic of the Barrier factor with a total of 5 questions. Table 8 shows respondents' responses to each item of this variable.

Table 8: Barrier Factor in Using E-Learning.

Item	Responses					Mean
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
B01	9	38	55	104	51	3.58
B02	14	26	33	94	90	3.86
B03	14	19	31	78	115	4.01
B04	17	26	42	77	95	3.80
B05	8	21	47	83	98	3.94
Total						3.83

According to Table 8, item B01 has the mean score as much as 3.58 and indicates the lowest score among Barrier factor instruments. However, it also expressed that a lack of ability to use technology is a barrier for students to use E-Learning. Despite item D05 explains that E-Learning is the booster for technical skill, parents are claimed that E-Learning is unable to run properly without any ICT literacy. Then, item B02 has the mean score as much as 3.86 and shows that parents are considered the pros and cons of E-learning regarding the ownership of the digital devices. Respondents claimed that the lack of digital devices (cellphones, smartphones, laptops, tablets, etc.) is a barrier for students to use E-Learning. Item B03 has the highest mean score with a value of 4.01. Most of the respondents strongly agreed that the main problem for the E-Learning implementation is the Internet connection.

Furthermore, item B04 has the mean score as much as 3.80 and indicates that the limitations of the electricity also a significant issue besides the Internet connection. The majority of parents claimed that power outage is recently occurred and causing the learning process interrupted. In line with this, item B05 also has a high mean score with a value of 3.94. Thus, it explains that the availability of a mentor/instructor is crucial. Parents are agreed that the learning process is running optimally with guidance from the teacher physically not in a cyber manner. The overall mean score of the Barrier factor is at 3.83 and shows the anxiety of parents for the E-Learning usage to their children.

V. DISCUSSIONS

Based on the findings of the study, parents are feeling uncomfortable while their children using E-Learning as the replacement for traditional learning during the COVID-19 pandemic. Parents are agreed that E-Learning has the advantages to enhance their children's technological skill and easiness of learning resources, yet E-Learning has also the disadvantages in the overall learning process. They claimed that E-Learning is poor in arrange students' learning schedules, supporting their emotions, delivering the learning material, and helping students to concentrate on learning. Moreover, they

also stated that traditional learning is more beneficial than E-Learning. However, blended learning is an option to conduct flexible and scalable learning for students (Hameed et al., 2008). A combination of traditional learning and E-Learning is a proper way to enhance the effectiveness of E-Learning to improve the students' performance (Sheikhaboumasoudi et al., 2018).

E-Learning has numerous benefits, including the ability to the recording of lectures, accessible learning content, rapidity of lesson delivery, high consistency, and scalability (Odhaib, 2018). Nevertheless, students prefer traditional learning during the COVID-19 pandemic. Students claimed that a common classroom learning method is more real and provides an opportunity for them to actively communicate with teachers and friends (Radha et al., 2020).

The study reveals a surprising result regarding parents' level of satisfaction on E-Learning during the COVID-19 pandemic. Parents are stated that E-Learning has no strength to improve the students' personal development and their general skill. In the same way, parents are agreed that learning through the E-Learning method cannot motivate them to support their children to continue using it. They are feeling uncomfortable while their children are using E-Learning rather than traditional learning in school. Hence, they would not be recommending E-Learning to others to use to replace traditional learning. Parents are feeling dissatisfied while their children using E-Learning as a replacement for traditional learning.

The finding also declares certain barriers in implementing E-Learning during COVID-19 pandemic, namely ability to use technology, digital devices ownership, poor Internet connection, the issue in electricity, and the absence of mentor/instructor. Many researchers claimed that ICT literacy is significantly influencing the usage of this technology (Alharbi & Sandhu, 2019; Kim et al., 2019; Marlina & Nurhayati, 2020). Hence, it is important to enhance the students' ICT literacy to achieve effective use of E-Learning. In line with this, ownership of digital devices among students is also vital to runs E-Learning properly. As stated by the Indonesian Minister of Education and Culture, there is an unequal technology distribution in Indonesia, including ownership of cellular communication equipment (Tempo.co, 2020). Furthermore, inequality also appears in the Internet connection. The Internet connection is the major barrier for E-Learning usage during COVID-19 pandemic. According to OpenSignal, Indonesia's Internet speed is ranked 74th out of 77 countries worldwide and indicates an inadequate Internet connection in Indonesia (Opensignal, 2019). Therefore, a proper ICT infrastructure is required to improve the E-Learning implementation (Kibuku et al., 2020).

VI. CONCLUSION

E-Learning has become a popular component during the COVID-19 pandemic for schools and universities (Radha et al., 2020). Despite its advantages for students, there are several holes in implementing E-Learning in Indonesia, especially the parents' perspective. The resistance from parents occurs due to certain barriers including poor ICT infrastructure (e.g. the Internet, digital devices, electricity) and lack of technology skills. Parents are feeling dissatisfied with the replacement of E-Learning for their children during this pandemic. They claimed that traditional learning in a physical classroom is more effective rather than the cyber one. However, the pandemic situation does not allow traditional learning to be run. Many studies have been predicted the end of COVID 19 pandemic in all countries by using several methods (Luo, 2020; Torrealba-Rodriguez et al., 2020; Vattay, 2020), including Indonesia (Pratikto, 2020) and it still hasn't found the point yet. Therefore, the Indonesian government should take concern on this issue due to the importance of the education sector besides the others.

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