Students' Perspectives: E-Learning During Covid-19 Pandemic

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Abstract

The implementation of e-learning during Covid-19 Pandemic raises pro and cons particularly among the university students such as internet access, budget and quota, as well as overload tasks. However, others think e-learning is the appropriate one to establish the learning process during physical distance regulation as the prevention of Covid-19. This research aims to describe the student perspectives on the implementation of e-learning during Covid-19 Pandemic. The design of this study was quantitative research. 189 university students in Riau, Indonesia participated by snowball sampling technique. The research collected data by employing a questionnaire in the Google form and sharing it through What Sapp. The data was analyzed by the descriptive statistics. The research revealed the implementation of e-learning among the university students was not optimal. The synchronous and asynchronous as the interaction schemes were established separately. Only 10.58% students had experienced both schemes. Furthermore, internet access, and internet quota and budget were the major inhibiting factors. This research expects the educators and stakeholders evaluating the implementation of e-learning and provides comprehensive trainings for educators on e-learning.

Keywords: e-learning, synchronous, asynchronous

A. Introduction

E-learning has become a paramount aspect in the provision of education due to the Covid-19 outbreak. All learning process must use online mode. E-learning provides a platform for both students and teacher to facilitate their learning in more flexible ways. Teacher can deliver their materials, quizzes, written examination, and discussion to students both synchronous and asynchronous. Students, in addition, should adjust with this learning shift. However, many of them experience obstacles in e-learning such as internet access (Almaiah, et al, 2020; Wan Hassan, et al, 2020), internet data packages (Aini, Q., Putra, P., Budiarto, M., Rahardha, U., 2020; Al Balas, et al, 2020; Farooq, et al, 2020), and overload task (Ranastu-Avalos and Siiman, 2020; Zulkifli, et al, 2020; Adedoyin, O., Soykan E., 2020).

Many studies generated mixed results for e-learning and learning improvement (Cappel & Hayen, 2004; Ruiz JG, Mintzer MJ, Leipzig RM 2006 ; Cook D, et al, 2008). In general, e-learning is considered less effective to acquire knowledge, skills, and good behaviour (Al-Shorbaji N, Atun R, Car J, Majeed

A, 2015; Fletcher J., 2007). Students should deal with challenges of self-regulation in using e-learning (Aini, Q., Putra, P., Budiarto, M., Rahardha, U., 2020). In contrast, e-learning has positively improved retention of learning (Parry, Larsen, Marwood, et al, 2007; Hammarlund, Nilsson, Gummesson, 2015; Morton, Saleh, Smith, et al, 2016). However, there have been limited studies on e-learning in the context of Covid-19 Pandemic. Therefore, to find out better practices how to teach and learn by using e-learning during Covid-19 Pandemics, understanding all learning components including students is important. Analyzing students' perspectives on the implementation of e-learning can be a counterbalance between teacher and student practices and results a proper evaluation.

B. Literature Review

E-learning is education provision through various ICT media including instructing, teaching and learning (Koohang and Harman, 2005). Similarly, Gotchal (2000) explains e-learning is a distance learning in which teacher delivers teaching materials to students by using online video presentation and connected by network and computer. Furthermore, Grandbastian, Ouhbahsi, and Claes (2003) defined e-learning as a process which includes basic inputs (knowledge, experience, and curriculum) and suppliers (teachers, trainers, technicians, and other specialists in the field), then transformed (external factors such human and material resources, performance, and progress) into outputs (training sessions, evaluation, analysis, and other information) to the students. In addition, flexibility of time and place are also involved in the process of e-learning (Almosa, 2002; Smedley, 2010; Jose & Christoper, 2018), and oriented to students' needs (Marc, 2002).

However, e-learning also raises some issues such as extra cost and time (Collins, et al, 1997), class limitations, boredom in learning, and limited interactions (Rabiman, Nurtanto, and Kholifah, 2020). According to Ruiz et al. (2006), there are three components of e-learning: (a) content development; (b) content management; (c) content delivery (synchronous and asynchronous). Adversely, e-learning is merely viewed as technology tools rather than pedagogy (Higher Education Funding Council for England, 2009). Many studies revealed that the implementation of e-learning like as e-reading (Nichani, 2002). In addition, many others believed e-learning as digital page turning, but it offers nothing (Masie, 2001).

In e-learning, there are two interaction schemes: synchronous and asynchronous mode. Synchronous mode requires real time teaching (Abubakar et al., 2017: 218), and supported by live streaming video and chat (Hranstinski, S, 2007) to interact between teachers and students in sharing knowledge or ideas. In contrast, asynchronous does not need real time interaction such as email and discussion forum (Almosa & Almubarak, 2005) in which teacher can share message or instructional materials, and students can download it at any times (Hrastinski, 2007). Both synchronous and asynchronous can strongly affect students' comprehension on the course (Nganji, 2018). According to Offer, Lev, and Bezalel (2008), asynchronous mode can affect students' performance in which there is no students-teacher dialogue. In contrast, synchronous mode provides live academic discussion to assist students understand the course content (Nganji, 2018) and a sense of community (Boelens, De Wever, and Voet, 2017). However, the availability of

both synchronous and asynchronous can enrich the student interaction and opportunity to ask and respond in the learning process. Fisher, M., Coleman, B., Sparks, P., Plett, C., 46)

To provide an effective e-learning, teachers should establish meaningful learning environment. In this environment, students learn best socially through collaboration in which the knowledge is provided contextually by the community. An ideal learning environment is a place for students to gain identity and confidence. Students can get the knowledge by actively participating in the practice of community and connecting the previous and new knowledge (IRL, 1990). According to Arias (1999), to get supporting informed participation requires process that integrated individual and group knowledge through collaborative constructions. Furthermore, collaborative construction can be provided through cognitive flexibility. The cognitive flexibility can present both cognitive and personal participation and reduce rigidity of thought and action. In addition, cognitive flexibility can provide "openness-based "flexibility in which it can access for adaptive knowledge application, and transfer knowledge to new situation. So, collaborative construction and cognitive flexibility are the main features in establishing meaningful learning environment in e-learning.

According to Adedoyin, O., and Soykan E., (2020), there are several factors influencing the implementation of e-learning include technology, socio-economic, human and pets intrusions, digital competence, assessment supervision, heavy workload, compatibility, opportunities, research innovation, and technological innovation. In addition, Brand and

Dousay (2015) explain the absence of the thorough plan either in the design or instruction can be an acceptance by the users in the application of online learning. This rejection believes the online learning as an emergency remote teaching rather than the alternative ways during this pandemic (Bozkurt & Sharma, 2020; Hodges et al., 2020; Vlachopuolos, 2020). Furthermore, Feldman (n.d) noted some negative impacts of e-learning such as (1) students anxiety on their academic performance, (2) biassed assessment, (3) teacher unready to provide high-quality instruction remotely, and (4) racial, social and resource differences. According to Bonk and Dennen (1999), attrition rates and low participation are frequent complain by teachers in e-learning. Besides, lack of training, less information how to engage students in online learning, and not to know how to embed effective pedagogy and weak in utilizing the technology are challenges facing by the teachers (Dennen and Bonk, 2007).

C. Research Method

This research was quantitative with a survey design. There were 189 university students in Riau, Indonesia participated in this research by employing snowball sampling technique. This sampling technique was used because of limitation in accessing samples during Covid-19 Pandemics. There were physical distance regulation by government and study from home by university's regulation enabling the researchers to gather data by other sampling techniques. This research was conducted in June 2020 for a month in which the university students had already accomplished their semester by full online learning for the first time . The data was collected by sharing a questionnaire in the google form through

WhatsApp groups and analyzed by the descriptive statistics.

D. Results and Discussion

This research figured out that since Covid-19 pandemic, the students used e-learning every day (91%) as seen in table 1.

Table 1 Frequency of using E-learning

No	Response	Frequency	Percentage
1	Everyday	172	91.01
2	Every week	7	3.70
3	Every two weeks	4	2.12
4	Every month	1	0.53
5	Every couple of months	4	2.12
6	Every once a year	1	0.53
	Total	189	

1. Interaction Scheme

For interaction scheme, students used synchronous mode (43.92%) by using Whatsapp, Zoom, and Google Meet. Other students used asynchronous mode (45.51%) by using Edmodo, Google Classroom, . There were 10.58 used both synchronous and synchronous mode (10.58%) by using combination of some apps of e-learning as seen in table 2.

Table 2 Forms of E-Learning

No	Forms of E-Learning	Frequency	Percentage
1	Edmodo	3	1.59
2	Google Classroom	80	42.33
3	Whatsapp	77	40.74
4	Combination of Some Apps	20	10.58
5	Youtube	3	1.59
6	Zoom	4	2.12
7	Google Meet	2	1.06
	Total	189	

Based on table 2, only 10.58 % students had experienced both synchronous and asynchronous mode which resulted in balancing both cognitive and personal participation. Meanwhile, 89.42% students had not experienced both thoroughly in which 43.92% students received personal participation and 45.51% received cognitive participation. Based on data, majority of students were not provided optimal approaches in encountering their learning styles and needs.

In addition, to support data in table 2, table 3 showed that there were 7 activities conducted in e-learning such as discussion (53.97%), exercise or quiz (17.46%), summary (15.87%), combined activities (4.23%), task (2.65%), reading books or articles (2.65%), watching videos (2.65%), and essay (0.53%).

Table 3 Form of Activities

No	Response	Frequency	Percentage

No	Response	Frequency	Percentage
1	Discussion	102	53.97
2	Task	5	2.65
3	Exercise or Quiz	33	17.46
4	Combination	8	4.23
5	Read Books or Articles	5	2.65
6	Summary	30	15.87
	Watching Videos	5	2.65
	Essay	1	0.53
	Total	189	

From table 3, it strengthen that one mainly synchronous activity was discussion 53.97%. Meanwhile, others activities (41.81%) such as exercise or quiz (17.46%), summary (15.87%), task (2.65%), reading books or articles (2.65%), watching videos (2.65%), and essay (0.53%) were included as asynchronous activities. Only 2.65% activities promoted combination of synchronous and asynchronous mode.

2. Students' self-esteem in using e-learning,

Table 4 The Competency

No	Response	Frequency	Percentage
1	Advanced (Applied Theory)	17	8.99
2	Intermediate (Practical Application)	130	68.78
3	Novice (Limited Experiences)	39	20.63
4	Fundamental Awareness (Basic Knowledge)	3	1.59
5	Not Applicable	0	0
	Total	189	

Based on table 4, majority of students (77.77%) perceived they have good competence in using e-learning in which 8.99 % students were advanced (applied theory) and 68.78% students were intermediate (practical application). Meanwhile, only 1.59% students perceived that they were novice (basic knowledge) in using e-learning.

3. Students' Motivation on E-Learning

Table 5 displayed the students' feeling on e-learning. Majority of students (66.67%) had negative response on this item, in which students felt less excited (55.03%), not excited (9.52%), and very not excited (2.12%). Meanwhile, students felt excited (32.80%) and very excited (0.52%).

Table 5 Feeling on E-Learning

No	Response	Frequency	Percentage
1	Less Excited	104	55.03
2	Excited	62	32.80
3	Very not Excited	4	2.12
4	Not Excited	18	9.52
5	Very Excited	1	0.53
	Total	189	

Table 6 showed that the interaction established during learning process through e-learning. Students considered the interaction occurred during learning was less interactive (46.52%) and not interactive (5.88%). Meanwhile, students thought the interaction was interactive (43.85%) and very interactive (3.74%).

Table 4 Teaching Interaction

No	Response	Frequency	Percentage
1	Interactive	82	43,85
2	Less Interactive	87	46,52
3	Very Interactive	7	3,74
4	not Interactive	11	5,88
	Total	187	

In table 7, it showed teaching activities were less varied (30.69%), unvaried (4.76%), very unvaried (2.12%). Surprisingly, 49.21% students thought teaching styles varied and 13.23% students thought very unvaried.

Table 5 Teaching Activities

No	Response	Frequency	Percentage
1	Less Varied	58	30,69
2	Very Varied	25	13,23
3	Very unvaried	4	2,12
4	Not Varied	9	4,76
5	Varied	93	49,21
	Total	189	

4. The implementation of E-Learning

Table 8 The Use of E-Learning

No	Response	Frequency	Percentage
1	Very Effective	2	1.06
2	Effective	35	18.52
3	Less Effective	130	68.78
4	Not Effective	15	7.94
5	Very Not Effective	7	3.70
	Total	189	

In table 8, 80.42% students had bad impression on the use of e-learning in whih students thought it was less effective (68.78%), not effective (7.94%), and very not effective (3.70%). Meanwhile, students thought the use of e-learning was effective (18.52%) and very effective (1.06%).

The implementation of e-learning, based on students' perspectives, was less effective. It was influenced by some inhibiting factors such as unavailability of facilities (61.29%), incomprehensible teaching material (27.96%), less students' ability in using e-learning (4.84%), less teaching ability in using e-learning (3.76%), less teacher explanation (1.08%), unrelax teaching atmosphere (0.54%), and inappropriate teaching schedule (0.5%) as seen in table 5.

Table 9 Inhibiting Factors

No	Response	Frequency	Percentage
1	Unavailability of Facilities	114	61,29
2	Incomprehensible Teaching Material	52	27,96
3	Unrelax teaching atmosphere	1	0,54
4	Less Teacher Explanation	2	1,08
5	Inappropriate teaching schedule	1	0,54
6	Less Teaching Ability in Using E-Learning	7	3,76
7	Less Student Ability in Using E-Learning	9	4,84
	Total	186	

In addition, to specify the unavailability of facilities which challenges students in using e-learning, students mentioned some obstacles in suing e-learning such as internet access (58.70%), internet package (33.70%), electricity (4.35%), headphone (1.63%), and laptop (1.63%) as seen in table 6.

Table 10 Obstacles in Using E-Learning

No	Response	Frequency	Percentage
1	Internet Access	108	58,70
2	Hand phone	3	1,63
3	Internet Package	62	33,70
4	Laptop	3	1,63
5	Electricity	8	4,35
	Total	184	

To strengthen the students' perspectives in using e-learning. Students were asked whether they want to use e-learning after Covid-19 pandemic. Students' response were no (67.73%) and yes (32.28%) as seen in table 7.

Table 11 Recommendation to Use E-Learning after Covid-19

No	Response	Frequency	Percentage
1	No	128	67,72487
2	Yes	61	32,27513
	Total	189	

In addition, students were also asked whether they want to recommend e-learning to others. Consistently, students' response were no (54.44%) and yes (46.56%)

Table 12 Recommendation to Others

No	Response	Frequency	Percentage
1	No	101	53,44
2	Yes	88	46,56
	Total	189	

E. Conclusion

The research concluded that the implementation of e-learning among the university students was not optimal. Most of the e-learning process used asynchronous mode by emphasizing more on cognitive participation, not personal participation. In addition, majority of e-learning design model used class type. The application of e-learning did not promote learning anlytics in which the learning process was less interactive. Furthermore, internet access, and internet quota and budget were the major inhibiting factors. This research expects the educators and stakeholders evaluating the implementation of e-learning and provides comprehensive trainings for educators on e-learning.

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