

Engagement and Satisfaction Towards Blended Learning during Online Distance Learning (ODL) Among Physical and Health Education Students

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Accepted: 15 June 2021 | Published: 1 July 2021

Abstract: *Study aim: This study aimed to explore the engagement and satisfaction towards blended learning during online distance learning (ODL) among Physical and Health Education (PHE) students. Materials and methods: The participants comprised of 37 male and 55 female PHE students participated in this study. A Student Satisfaction Survey Form (SSSF) (14-questions) was used to assess frequency of interaction among students and lecturers and to evaluate level of satisfaction between gender towards Google Classroom. Descriptive analysis was used to find out mean frequency of interaction between lecturer and PHE students. T-test was used to evaluate the mean, frequency, and standard deviation (SD) level of satisfaction towards Google Classroom between gender. Results: Male and female participants had a positive attitude toward blended learning and perceived blended learning during online distance learning as a success to their course related task. The transmission to blended learning using suitable platform give clear understanding to the students. Data analysis revealed that Google Classroom has made a significant impact on overall frequency of interaction between lecturers and male and female participants. Both male and female participants perceived Google Classroom application positively. Male students had greater mean changes in level of satisfaction towards Google Classroom than female students did ($p=0.328$, $p>0.05$). There was no statistical difference between gender in level of satisfaction towards Google Classroom. Conclusion: Blended learning can be conducted effectively with the aid of Google Classroom to promote collaborative learning, organize assignments and reduce inconvenience during online distance learning.*

Keywords: blended learning, e-learning, engagement, motivation, teaching and learning

1. Introduction

According to the World Health Organization, WHO (2020), at the end of the year 2019, the Coronavirus 2019 (COVID-19) first appeared in Wuhan, China. Henceforth, the WHO announced that the disease has broadened to 200 countries and has since been declared a worldwide pandemic. Since the Malaysian government imposed the Movement Control Order, the public were instructed to pursue courses and studies using any good online platform beginning in April 2020 (Yusuf, 2020). The pandemic stemmed from the disease has resulted in severe measures in significant parts of the world. The COVID-19 has broad-spectrum aftermath on commercial transactions run electronically on the internet, technology, official journeys, economy, and education. The pandemic has causes death to many individuals. As a means of restraining COVID-19 from happening, every country took on a quarantine plan of actions and Malaysia has also embraced a similar measure.

The perception of education had undertaken a great move, in present-day, from teacher-centric to learner or learning-centric and vice versa. Previously, educators acted as a knowledge provider; these days, their responsibilities has developed (Umamah, 2019). Fitriningtiyas et al. (2019) conducted research on the study of Google classroom: as a media of learning history, it found that teaching has contradicted the old traditional teaching style which traditional setting promotes teacher-centered while modern practices have made many changes. The instruction does not usually comprise teaching students only, listening obediently, and observing what they perceived. Instead, they provided each of the students with a rich, engaging and fulfilling learning experience.

Technology promotes improved student participation (Northey, Bucic, Chylinski, & Govind, 2015), and crucial for achieving the desired learning goals (Bolkan, 2015). Al-Marroof, R. A. S., & Al-Emran (2018) stated that Google Classroom is a medium of combining face-to-face learning initiated in 2014. It functions as a web-based medium that appears for a vital and in-demand class management application in higher education. Up to now, far too little attention has been paid on engagement and satisfaction towards blended learning during online distance learning among Physical and Health Education students specifically during this pandemic. Although some research has been carried out on the effectiveness of Google Classroom, there is still very little scientific understanding on determining other factors that may influence the engagement and satisfaction of Google Classroom highlights on Physical and Health Education students.

The focal goal of this study was to identify students' engagement and satisfaction towards blended learning during online distance learning (ODL) among male and female participants during COVID-19 pandemic. Firstly, this research instigated the students' perception towards blended learning during COVID-19 pandemic. Precisely, this research explored the frequency of interaction between students and lecturers in the current online distance learning situation. This study also aimed to identify students' satisfaction level in utilizing Google Classroom platform during blended learning amidst the COVID-19 pandemic. The findings would lead to recommendations of methods and approaches that may act as a tool to help educators and administrators improve online courses environment to promote better learning among the students.

2. Literature Review

The advantages of blended learning in enhancing academic outcomes have ultimately reined in on the platform of online learning. The primary purpose of this section was to explore and shed light on how the Google Classroom affects the learners' usage as a blended learning platform.

Technology Acceptance Model

There seem to be numerous theories/versions of the information system (IS) designed to test the adoption of innovation. One remarkable example is the Technology Acceptance Model (TAM), which Fred Davis created in 1989. TAM was developed using the Reasoned Action Theory (TRA). This section discusses the approach exerted to evaluate the most typically used external variables of the Technology Acceptance Model (TAM) concerning the adoption of e-learning. To perform a systematic review and research, for the past 12 years, a total of 120 published studies have been considered. Thus, triangulation which is a procedure multiple methods or data sources in qualitative research to develop a comprehensive understanding of phenomena (Patton, 1999).

TAM indicates that two fundamental beliefs are determining the behavioral purpose of the students in using Google Classroom; Perceived Utility (PU) and Perceived Ease of Use (PEOU); PU refers to the degree to which an individual feels that the efficiency of his or her job will be improved by using a specific system, while PEOU refers to the degree to which an individual thinks that it would be safe from efforts to use a particular technology (Al-Marroof, & Al-Emran, 2018).

Various researchers have embraced the TAM to study the acceptance and use of technology and across related cases such as E-learning (Almarabeh, 2014) and M-learning (Al-Emran, Elsherif, & Shaalan, 2016), were widely implemented. In this study and its daily academic lesson, the TAM was adopted to test the students' acceptance of Google Classroom as a technology. In this regard, TAM provides a solid background on the effectiveness of new technology. TAM also indicates several factors that can influence their decision to recognize when students are introduced to modern technology.

Current Perception of Online Learning

The worldwide outbreak of this virus has prompted educational institutions' closure to prevent this virus from spreading. Due to COVID 19, institutions induced educational professionals to develop alternative teaching approaches amidst the outbreak (Radha, Mahalakshmi, Kumar, & Saravanakumar, 2020). Digitalization has now assimilated into today's education system where it primarily involves teaching professionals and learners of various levels. Gadgets and modern innovations such as smartphones, laptops, and the internet are fundamental elements of this learning approach. E-learning is steadily developing and has demonstrated to be the finest in all industries, particularly in the education sector throughout this COVID-19 pandemic.

Many studies are focusing on the significance and usefulness of the implementation of e-learning. It is promoted as a teaching tool by several universities worldwide, and learners widely embrace it. There are countless explanations for its general acceptability; few are especially crucial to learners because of its simplicity, accessibility, and better environmental circumstances (Abbasi, Ayoob, Malik, & Memon, 2020). However, despite its many benefits, there are quite a few constraints of e-learning, such as social isolation, lack of engagement between students and teachers, connectivity problems, etc. (Kwary & Fauzie, 2018).

Online education at Chinese universities has increased massively since the COVID-19 outbreak. There has been a shift overnight from standard classrooms to e-classrooms, i.e., educators have changed their entire pedagogical approach to satisfy current market dynamics and adapt to changing scenarios. According to Carey (2020), the question during this challenging time is that online teaching-learning approaches can provide quality education, but how can academic institutions adopt online learning in such a massive way?

Students Perception of Blended Learning

The previous studies examined the effectiveness of the blended approach to learning. They mainly stated that blended learning combines the educational needs of learners such as complacency of knowledge, developing convenience and adaptability, reaching, and enhancing language learning skills, and reinforcing critical thinking skills (Ja' shan, 2015). Few authors mentioned that students portray enjoyable experience and satisfied behavior with this new teaching technique in general concerning blended learning. One of the authors, Bendania (2011), illuminates positive attitudes and the circumstance related to attitudes; most

experienced, certainty, happiness, usefulness, expectation to utilize, inspiration, and whether students had ICT abilities were utterly connected. This is supported by Al Zumor (2013), which takes on a similar stance, exploring the learning styles and satisfaction of Egyptian EFL students using web-based materials. Since the development of benefits such as usefulness, enjoyment, accessibility, convenience, and full of resources, the study discovered highly positive perceptions.

Besides, the gender of students had a certain impact on the choice of students learning style; with web-based materials, it made little difference to them. Adas and Wafa (2011) in their investigation endorsed that the attitudes of the students towards blended learning were positive, particularly on the process, convenience, and content. Past studies by Hwang (2015) reviewed the students' feedback on blended learning and it was found that they had a positive attitude towards blended learning material in which they were engaged more in the discussion sessions. On the other hand, the students who portrayed a negative attitude were found to not be actively involved in online activities.

Yu, Choy, Chan, and Lo (2008) mentioned that blended learning expands the contact hours, and an individual can have with one another. Therefore, through communication, they improve their understanding of teaching and learning. They discovered that through blended learning, both learners and instructors identify the suitable software and e-learning platform in regard of the correspondence, cooperation, management, and regulatory device to improve language abilities. Likewise, another related exploration also affirmed the improvement in students' learning (Hadidi & Sung, 2000). However, one of the significant difficulties is whether the materials suit students' shifted needs and interest. Rastergarpour (2010) affirmed that blended learning is a smart thought, yet affective domain would be absent in such combined guidance.

Google Classroom and Blended Learning Issues

Confusion exists between social media, online learning, and the use of higher education technology, especially in view of the interchangeability of terms. There are also somewhat older terms, such as writing about Learning Management Systems and Web 2.0, which are still commonly used (Oliver, 2001). Besides, other researchers, Zainuddin & Hajar Halili (2016); Pienta (2016) wrote about blended and flipped learning, while Northey, Bucic, Chylinski and Govind (2015) addressed asynchronous learning. From even the shortest evaluation, there is a distinction between platforms and pedagogies: for example, Facebook, Twitter, Moodle, and Blackboard can be categorized as different types of learning platforms, while flipped learning, asynchronous learning and blended learning would be easier to describe as pedagogical inventions. Other researchers have written about 'open' or distributed learning and Massive Open Online Courses (MOOCs; Norberg, Handel & Odling, 2015). This profusion of terminology means that it is difficult for educators to identify the best practice and therefore the use of technology has not been proven to be indisputably successful.

Blended learning is a learning method that combines face-to-face or offline meetings with online packaged functionality (Bawaneh, 2011). It is also known as hybrid learning. The advantages of using blended learning are shown in: (1) Blended learning is more attentive in class than simple virtual learning or face-to-face; (2) Blended learning is more effective in enhancing students' learning achievement; (3) Blended learning, especially during online interactions is able to increase teacher-student communication activities; (4) Blended learning improves students' ability to use information technology; and (5) Blended learning can reduce face-to-face expenses (Dzakiria, Wahab, & Rahman, 2013). Students have expressed a significant difference on the views that they learn more effectively in a blended learning setting

in relation to the blended learning environment, as well as online and face-to-face learning environments (Eryilmaz, 2015).

The success of blended learning in teaching activities is supported by several outcomes of educational research. In this millennial era, it is very relevant to really utilize blended learning (Dziuban, Moskal, & Hartman, 2005). It is capable of increasing students' knowledge to a greater level of thinking. By using blended learning, the management of materials and classes will be better, so the outcomes of student learning significantly increase as well (Singh, 2003). Usage of Google Classroom is one of the examples of blended learning (Iftakhar, 2016), it will be an optimal platform if combined with pages that teachers and students can access easily.

3. Materials and Methods

The research design that applied for this research was mixed-method design that seeks to use both quantitative and qualitative methods in a single study. Mixed-method research is a methodology for leading research involving collecting, analyzing, and coordinating quantitative such as surveys and experiments while qualitative can be in focus group or interview (Wisdom & Creswell, 2013). The researcher adopted a non-experimental research design, which is a method of descriptive case study research.

Instrument

This research employed a semi-structured interview method, where participants were given the freedom to express their point of view. The semi-structured interview questions were constructed based on a prominent study as performed by Tshabalala, Ndeya-Ndereya, & van der Merwe, (2014) on implementing blended learning at a developing university: obstacles in the way.

The quantitative research was obtained by distributing a questionnaire to the respective respondents. The pattern of how questions are formulated is based on a prominent study as exercised by Abou Naaj, Nachouki, & Ankit, (2012) on evaluating student satisfaction with blended learning in a gender-segregated environment, which used 14 items adopted from Student Satisfaction Survey Form (SSSF). The survey will be split into three sections. The first section concentrates on collecting demographic information of the students. The second section is devoted to gathering information on the frequency of interaction between the instructors and the students, and the last section focuses on the satisfaction of students using Google Classroom.

Participants

This sample was students from higher-level educational institutions in university in Selangor. The participants from this selected universities were students currently pursuing bachelor's degree in Physical Health and Education in the Faculty of Education. This study incorporates 55 females and 37 males of participants from second semester until eighth semester within the age of 18 up to 29 years old.

Sampling strategies for this study widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2002). The researcher would like to estimate the prevalence to within $\pm 7.5\%$ of its true value. According to Rohan (2018), since the population will be a smaller than the researcher would need for a study of a large population, a purposive sample of 92 will give the study a margin error (confidence interval) of $\pm 7.5\%$ in determining engagement and satisfaction towards

blended learning during online distance learning (ODL) among male and female participants during COVID-19 pandemic.

Research Procedure

The questionnaires required for the study were adequately prepared. Researcher handed out questionnaires and participants responded to them by voluntary participation. First and foremost, the researcher spent some time to explain to the participants on the study aims, objectives, benefits before participants completed their consent form. Everything was carried out online due to the COVID-19 pandemic and the researcher need to distribute the questionnaires using Google Forms. In preparing materials for the interview, the researcher has gathered a total of 5 questions that contain element of perception towards blended learning during COVID-19 pandemic. The questions were carefully selected based on the research objectives and research questions. The participants were never force to answer any of the questions and may withdrawn from this study at any time without any consequences. The researcher also stressed all data will be treated as confidential and use only for the purpose of this study.

Then, the researcher relied on the data collected from the Google Forms website after responses are submitted. The data then be analyzed to find the descriptive analysis using the Statistical Package for the Social Sciences 27.0 package. A flowchart detailing the procedures for research is shown below.

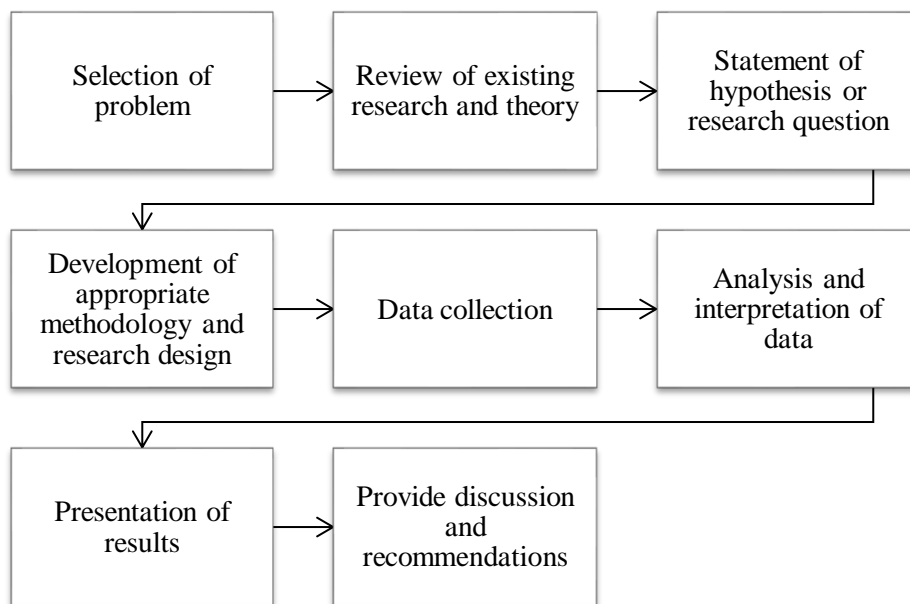


Figure1: Step in the development of research

4. Analysis and Results

This section describes the analysis of three research objectives and findings that address the research questions of this study.

Respondents Demographic

Table 1: Demographic Profile of Participants

Demographic variables	Category	Frequency	Percentage (%)
Gender	Male	37	40.2
	Female	55	59.8
Age	18-20	5	5.4
	21-23	41	44.5
	24-26	43	46.7
	27-29	3	3.3
Semester	Semester 2	5	5.4
	Semester 3	11	12.6
	Semester 4	13	14.1
	Semester 5	6	6.5
	Semester 6	16	17.4
	Semester 7	14	15.2
	Semester 8	27	29.3

Table 1 provides the demographic profile of the participants. This study achieved 100% of response rate. The results revealed that female students (59.8%) were the majority who answered the questionnaires compared to male students (40.2%). The participants aged between 24-26 years old (46.7) were the highest answered the questionnaire, followed by 21-23 years old (44.6%), and 18-20 years old (5.4%). The least amount participated this study within range 27-29 years old (3.3%) respectively. According to the results it portrayed that most of the respondents who answered the questionnaire were from semester 8, which comprised of N=27 with percentage of 29.3% from the total respondents. The second highest of the respondents were from semester 6, in which consist of N=16 with percentage of 17.4% and the least number of respondents were from semester 2 which consist of N=5 with percentage of 5.4% from the total N=92 of respondents.

Perception on Blended Learning During Covid-19 Pandemic Among Physical and Health Education Students During Covid-19 Pandemic

The analysis of qualitative data from semi-structured interviews led to development of several categories, out of which four themes emerged.

Theme 1: Definition of Blended Learning

The participants had a positive attitude toward blended learning, as it offered an opportunity to study in their own time and at their own pace, permitting their studies to be adjusted according to their flexibility and responsibilities.

A physical health education student remarked:

“Blended learning for me is learning the subject that been study by using technology and media in learning. By using blended learning, we can have other option to learn rather than traditional learning itself which is face to face only” (PHE-01-Q1).

Theme 2: Connections, communications, and collaborations

The students proposed that communication among lecturers, students must be established on a regular basis, to ensure the effectiveness of implementation blended learning.

One of the physical health educations remarked:

“It is possible to complete the task at Google Classroom. This is because the educator created the platform or task for the student and student complete it within the time given. (PHE -03-Q3).”

Theme 3: Expectations from students

The students were in favor of adapting blended learning during this COVID-19 pandemic according to their preferences and styles of learning. They believed would lead to better educational outcomes and greater learner satisfaction regarding the course content.

One of the physical health and education students remarked:

“Besides, the educators deliver the learning material through slide and video. Then, student can refer to the learning content been prepared by educator and complete the task. I recommend that educator choose the most suitable and appropriate content and task for the student in Google Classroom (PHE -03-Q3).”

Theme 4: Implementation of Google Classroom

The students had concern regarding the implementation of blended learning, as they need to adapt with Google Classroom to keep engage with the course syllabus.

One of the students remarked:

“Learning sessions can be more interesting when educators integrate technology or creative multimedia or videos during teaching. Not only sit and listen but educator must be creative enough to create lovely classroom (PHE -02-Q4).”

Frequency of Interaction Between Lecturers and Physical and Health Education Students Through Blended Learning During Covid-19 Pandemic

Table 2: Means and Standard Deviation on the Frequency of Interaction

No	Items	Mean	Std. Deviation
1	A blended learning session keeps me always alert and focused	3.42	0.940
2	Interaction is adequately maintained with the lecturer when he/she is on the other side of the blended learning classroom	3.49	0.871
3	I am satisfied with the quality of interaction between all involved parties	3.35	0.895
4	I am satisfied with the process of collaboration activities during the course	3.53	0.954
5	I am satisfied with the way I interact with lecturer	3.51	0.871
6	I am satisfied with my participation in the class	3.64	1.012
7	The instructor makes me feel that I am a true member of the class	3.73	0.813
8	I am satisfied with the accessibility and availability of the instructor	3.71	0.778

The second research objectives attempted to determine frequency of interaction between lecturers and male and female participants through blended learning during online distance learning (ODL). The results of descriptive analysis were shown in Table 4.3.1 on the ratings that students made on 8 items of frequency of interaction between lecturers and male and female participants through blended learning. It portrayed an overview of the instructor makes them feel that they were true member of the class (M=3.73, SD=0.813). On moderate scale students were “satisfied with my participation in the class” (M=3.64, SD=1.012); they were satisfied with the quality of interaction between all involved parties (M=3.35, SD=0.895). The least rating given by the students were to the item number 1 in which a blended learning session keeps them always alert and focused (M=3.42, SD=0.940).

The Differences Level of Satisfaction Towards Google Classroom Between Male and Female Physical and Health Education Students During Online Distance Learning

Table 3: Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Satisfaction	Male	37	3.95	.468	.0769
	Female	55	3.83	.680	.0917

Table 4: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Satisfaction	Equal variances assumed	8.468	.005	.916	90	.362
	Equal variances not assumed			.983	89.93	.328

This table provided useful descriptive statistics for the two groups that researcher compared, including the mean and standard deviation. The group comparisons, including the sample size 92 respondents. There were 37 male students and 55 female students in Physical and Health Education. The male group ($N=37$) was associated with a satisfaction towards Google Classroom ($M=3.95$, $SD=0.468$). By comparison, the female group ($N=55$) was associated with a satisfaction towards Google Classroom ($M=3.83$, $SD=0.680$).

To test the hypothesis that male and female were associated with statistically significant different mean satisfaction towards Google Classroom, an independent samples t-test was performed. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test. The researcher wished to determine whether satisfaction towards Google Classroom between male and female students in Physical and Health Education departments, was different. 92 students were purposively selected and by using SPSS, test whether there was a significant difference between male and female satisfaction at 5% significance level.

Since the probability (p-value=0.005) for F values in table shown is less than 0.05, reject the null hypothesis of equal variances. Therefore, the SPSS output in the row of the equal variances not assumed should be used. According to the independent sample T-Test by the SPSS output shows that its probability, p-value is 0.328. since the probability values is greater than $\alpha=0.05$, we reject the null hypothesis. Thus, there is no significant difference in satisfaction towards Google Classroom between male and female in Physical and Health Education students.

5. Discussion

The study attempted to examine the perceptions of male and female participants using blended learning during online distance learning. As a result, the following conclusions were drawn. Firstly, the result portrayed students perceived blended learning during online distance learning was a successful to their course related task. The transmission to blended learning need to be revised to ease understanding of this concept including a selected suitable platform, good interface, and rationale for this new norm during this COVID-19 pandemic. Male and female participants started using Google Classroom before COVID-19 pandemic happened and now they were familiar with the use of it since the university has subscribed G-suite. Thus, male

and female participants clarified that blended learning can be essential to this pandemic since teaching and learning session still need to be conducted without having face-to-face learning.

The analysis of the questionnaires revealed that Google Classroom has made a significant impact on overall frequency of interaction between lecturers and male and female participants through blended learning during online distance learning (ODL). Findings obtained from study strongly supports the literature as mentioned by Jordan and Duckett (2018). Participants of the study showed a positive attitude towards integrating Google Classroom in blended learning. Authors such Alim, Linda, Gunawan, and Saad (2019) all supported the fact that Google Classroom has contributed to develop each students' skills and abilities. They can learn on their own through instructions and Google Classroom has become a supplement for them to achieve their course related task. This study demonstrated that students were able to discover new things by demanding them to participate actively via Google Classroom.

The third research objective focused on difference of students' level of satisfaction towards Google Classroom between male and female students of PHE during COVID-19 pandemic. In reviewing the literature, no data was found on the association students' level of satisfaction towards blended learning between male and female participants during online distance learning (ODL). Google Classroom adaptability among male and female participants' perspective of male and female seems not having any significant impact. This finding was consistent with that of Gupta & Pathania (2021) who mentioned in their findings that it was evident that there are no gender differences between male and female students in their Google classroom learning environments.

6. Implications of Theory

All the relationships postulated in this study were important and better clarified the intricate relationships between the different predictors of behavioral intentions towards the uptake of Google Classroom. This allowed other antecedents of the prime predictors of intentions within the model to be further examined. This implies that it is imperative to include all the variables mentioned above with in models that research Google Classroom based on Technology Acceptance Model (TAM). The results obtained from this study have practical effects for designers of e-learning programs, educators, and school management or administration. First of all, this research discovered that behavioral values such as perceived usefulness and perceived ease of use have significant impact on how students perceived learning assistance and community building assistance. This portrays that designers should produce e-learning systems that are effective and straightforward to use in order to affect students' learning outcomes.

Regarding theoretical implications, the adaptation of blended learning by using Google Classroom shows positive effect. The variable of perceived usefulness and perceived ease of use has positive impact on the use of Google Classroom as supporting blended learning lectures. The results mainly supported by authors such as Dalimunthe and Wibisono (2014), that students feel all the features provided is easy to use, easy to access to complete the task lecturers assigned. These two variables which are perceived usefulness and perceives ease of use have great influence with the clarification probably most students are accustomed to using information technology, so that they are already aware of the benefits provided by the Google Classroom.

7. Suggestion for Future Research

A similar study can be conducted in other education sectors such as primary or secondary schools to compare if the findings would be consistent with this study. Future research can also incorporate different methodology approach such as observation, focus groups or experiments to get more in-depth information and data collection in strengthening the validity of the findings. The current study based on analysis of interviews from students, it will be fascinating to consider the perceptions of educators, instructors, lecturers and compare those with students' perception. A comparative study can also be conducted by comparing the satisfaction and engagement of Google Classroom with other educational platforms.

8. Conclusion

Male and female participants perceived Google Classroom application positively and it has been proven that they were adapting new norm very well during this pandemic. Students found it effective to promote collaborative learning, organize assignments assigned, and reduce problem. As long as the students have internet access on their smart devices (e.g., desktop, laptop, mobile phone) Google Classroom can be accessed anywhere.

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