

ACCEPTANCE OF GOOGLE CLASSROOM AMONG COLLEGE LEARNERS DURING THE PANDEMIC

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Abstract

The learning environment changed drastically from face to face to virtual due to the pandemic because of this a free platform, Google Classroom became the tool of the teachers in the teaching and learning. In this regard, the acceptance of the students in using the Google Classroom was surveyed using an adopted instrument with the permission of the author. There were 6,871 respondents who were randomly chosen by convenient sampling. Descriptive correlational design was employed to determine the acceptance of the respondents on the Google Classroom. Both PE (Perceived ease of Use) and PU (Perceived Usefulness) have a beneficial impact on respondents' behavioral intentions when they perceive Google classrooms to be simple and practical, and they are highly motivated to use such pedagogical tools into their learning process. As recommended, Higher education institutions should provide students with training opportunities so that students' capacity to discover the comprehensive and effective features of Google classrooms is more apparent and widely used.

Keywords: Google Classroom, LMS, E-learning, TAM

1. INTRODUCTION

Students nowadays should have a 21st-century learning mindset to be able to take the challenge of IR 4.0. They should not only master the 3Rs - reading, writing, and arithmetic, but rather demonstrate the 3Cs - communication, collaboration, and creativity. Aside from these, they should also showcase digital literacy since education is borderless; therefore, anytime and anywhere students can access information like, open-source software and virtual tools that create borderless learning territories for students.

Learning does not have to be confined to the classroom or one-size-fits-all because nowadays classrooms are borderless because of the kind of technology that we have right now. Access to information is easy because of the technology that we have in this computer era, which is the internet. Students should maximize the usage of technology. Imagine, just a click of a mouse you can access all the information that you need, but adjustments on the part of the students is needed for them to cope up with the trends in education. This trend, in particular, is the use of Google Classroom in the learning process. Daud, (2020) said that students should embrace technology to enjoy E-learning.

E-learning continues to grow providing increased access to students (Allen & Seaman, 2008.) because it is a computer-based and web-based learning that uses different technology, and it uses virtual classrooms coupled with digital collaboration. The shift in the learning

environment made the students realize that they enjoy this virtual environment compared with face-to-face classes (Hannay & Newvine, 2006).

Also, e-learning is encouraged in this time of pandemic because it allows learning to take place since it has no physical boundaries even students who are living in far flung places can access learning at the comfort of their own home. Amidst the COVID19 crisis educational institutions especially in the Philippines were forced to shift from face to face to online. The constraints in learning because of the current situation around the globe, prompted the higher institutions of learning to require educational institutions to take advantage of Internet technology. With the present situation and with the lack of preparation some of the educational institutions, especially in the Philippines decided to use a platform that is already available and free. This platform is the Google Classroom Google is a popular Web 2.0 tool that offers a lot of interesting facilities and applications. Is used as a tool to deliver instruction because it offers social interactions, technological affordances, and pedagogical (Wang, 2012). It was introduced in 2014. Teachers can create classes, organize lectures, give home works, communicate with their learners, and provide information. It is a learning management system that makes us always connected with each other (Abedalaziz, 2013); engages us in several activities (Aldiab et al., 2019), and helps teachers organize the online courses (Lonn, 2009).

The following studies proved the following about Google Classroom (GC): effective to enhance students learning (Daud, 2019); improves the pedagogical process (Jeya & Brandford ,2019); improves classroom dynamics (Heggart and Yoo, 2018);increases student participation (Jeya & Brandford ,2019); increases engagement levels (Clay J.R et al., 2019); highly accepted by the students (Daud, 2019)makes learning easy (Christiano & Triana, 2019); accessible anywhere and encourages collaboration (Ramadhani et al., 2019).

Moreover, the results of the following studies are congruent to the results of the current study. Abedalaziz et al., (2013) said that higher education encouraged the use of online education because instructional materials can be accessed asynchronously any time and instructors and course mates can be easily communicated. Users of GC view it as useful and helpful (Al-Mekhlafi, 2020; Albashtawi & Al Bataineh, 2020; Sepyanda, 2018). Google Classroom was highly accepted by nursing students because of its usefulness and playfulness (Huang, Liu, Chen, and Tsai, 2021). Gour, (2018) and Iftakhar, (2016) said that students accepted Google Classroom because it is accessible, flexible, time-saving, fun, and usable.

In an e-learning environment, one should embrace technology (Teo, 2010) especially now that we are in the new normal setting. Students should accept the fact that the situation that we are facing because of the pandemic calls for the use of technology whether they like it or not because of the situation that each one is facing even though this is the scenario still one of the state universities in the Philippines was able to manage the use of Google Classroom.

The present study investigated the students' acceptance of Google Classroom as the platform for learning. This study found out the students' acceptance on this application indicating whether using Google Classroom is useful. The result of this study on the acceptance of Google

Classroom will help us understand the minds of the students on the usefulness of GC, and it will widen the understanding of the features of GC if ever a teacher will use the platform.

Theoretical Framework

The present study used Technology Acceptance Model or TAM (Davis, Bagozzi, & Warshaw, 1989) as the framework of the study to examine the factors that influence Google classroom acceptance among the respondents. The theory was initiated by Fred Davis in 1986. It was founded on the two specific beliefs: Perceived Ease of Use (PEU) and Perceived Usefulness (PU). Perceived Usefulness is the potential user's subjective likelihood that the use of a certain system (Google Classroom) will improve his/her action. Perceived Ease of Use is the degree to which the potential user expects the target system to be effortless (Davis, 1989). Therefore, the behavioral intention to use Google classroom is determined by two main beliefs; perceived usefulness (PU) and perceived ease of use (PEOU).

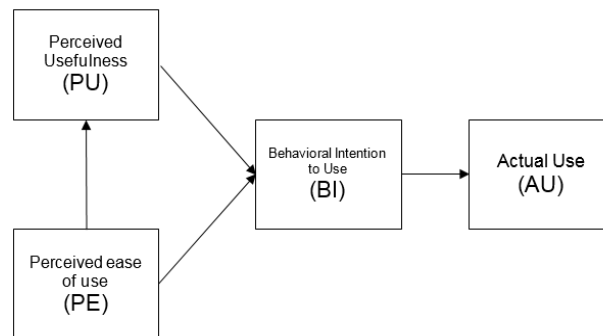


Figure 1: Paradigm of the Study

Statement of the Problem

This study is an attempt to examine the students' acceptance of Google classroom, furthermore the researchers would like to answer the question:

1. Is there significant influence in the usage of Google Classroom when grouped according to:
 - a. Perceived ease of use and Perceived Usefulness;
 - b. Perceived ease of use and Behavioral Intention to Use;
 - c. Perceived Usefulness and Behavioral Intention to Use; and
 - d. Behavioral Intention to Use and the Actual Use.

Hypothesis

- Perceived ease of use significantly influences Perceived Usefulness;
- Perceived ease of use significantly influences Behavioral Intention to Use;
- Perceived Usefulness significantly influences Behavioral Intention to Use; and
- Behavioral Intention to Use significantly influences the Actual Use.

2. METHODS

The acceptability of respondents to Google Classroom was determined using a descriptive correlational design. 6,871 respondents were picked at random among 31,077 students at a certain university in the Philippines. A convenient sampling technique was used to select the respondents. The acceptance of students in utilizing Google Classroom (GC) was surveyed using an instrument developed with the author's permission. An online survey was created using a Google Form, and results were collected in an online spreadsheet. Respondents were contacted by their subject professors. They were provided a link to the survey.

3. RESULTS AND DISCUSSIONS

The total number of respondents in this study was 6,871. Table 1 exhibits the demographic data of the respondents. Moreover, we can observe that the female represents 63.1% while the male represents 36.9%. Furthermore, most of the respondents are on the 17- and 22-years age bracket, which represent 92.3% of the total sample population. As regards to department/campus, 18.6% from COE, 17.9% from CHTM, and 17.8% from CBS are the top 3 participating departments. As regards the year level, it is shown that 36.1% of the respondents are 1st year, 35.7% are 2nd year, 24% for 3rd year, 4.1% for 4th year, and 0.2% for 5th year.

Table 1: Demographic Information

Item	Values	Frequency	Percentage
Sex upon Birth	Male	2,532	36.9%
	Female	4,339	63.1%
Age	17 to 22	6,339	92.3%
	23 to 28	427	6.2%
	Above 28	105	1.5%
Department	Apalit Campus	239	3.5%
	Candaba Campus	47	0.7%
	College of Arts and Sciences	173	2.5%
	College of Business Studies	1,223	17.8%
	College of Computing Studies	393	5.7%
	College of Education	1,278	18.6%
	College of Engineering and Architecture	710	10.3%
	College of Hospitality and Tourism Management	1,227	17.9%
	College of Industrial Technology	331	4.8%
	College of Social Science and Philosophy	354	5.2%
	Graduate School	44	0.6%
	Lubao Campus	192	2.8%
	Mexico Campus	246	3.6%
	Porac Campus	93	1.4%
Sto. Tomas Campus	321	4.7%	
Year Level	1st	2,480	36.1%
	2nd	2,450	35.7%
	3rd	1,646	24.0%
	4th	279	4.1%
	5th	16	0.2%

The item's dependability was determined using the factor loading approach. According to Hair et al., a threshold value of 0.7 or greater for each item's loading is considered credible (2014). The Cronbach's Alpha and composite dependability values should both be at least 0.7. All of the items are dependable and match the set standards, with the exception of PU6 and PU7, which had factor loadings below 0.7, as shown in Table 2. As a result, the construct's structure was abstracted from PU6 and PU7. Furthermore, the average variance extracted (AVE), which is defined as the grand mean value of the squared loadings of the items associated with the concept, is a common metric for determining convergent validity. A notion with an AVE score of 0.5 or higher explains more than half of the variation in its elements (Hair et al., 2014). Table 2 shows that Cronbach's Alpha and composite reliability values are greater than 0.7, while AVE values are larger than 0.5. As a result, the constructs' convergent validity is supported.

Table 2: Measurement Model Results

Constructs	Items	Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Perceived Usefulness	PU1	0.873	0.907	0.931	0.729
	PU2	0.883			
	PU3	0.831			
	PU4	0.879			
	PU5	0.799			
	PU6	0.518			
	PU7	0.624			
Perceived Ease of Use	PE1	0.824	0.891	0.917	0.649
	PE2	0.804			
	PE3	0.863			
	PE4	0.826			
	PE5	0.711			
	PE6	0.795			
Behavioral Intention to Use	BI1	0.876	0.868	0.919	0.791
	BI2	0.899			
	BI3	0.893			
Actual Use	AU1	0.901	0.708	0.872	0.773
	AU2	0.857			

In terms of route analysis, Figure 2 and Table 3 illustrate the path coefficients and p-values for each hypothesis. All of the hypotheses are supported, meaning that all of the pathways between the independent and dependent variables are significant. **H1** ($\beta = 0.710$, $p > 0.05$) explains the association between perceived ease of use and perceived usefulness, suggesting that perceived ease of use increases the perceived usefulness of Google Classroom. **H2** ($\beta = 0.454$, $p > 0.05$) shows a link between perceived ease of use and behavioral intention, demonstrating that perceived ease of use influences the behavioral intention to use Google classrooms. **H3** ($\beta = 0.415$, $p > 0.05$) shows the relationship between perceived usefulness and behavioral intention, demonstrating that perceived usefulness influences behavioral intention to use Google classroom positively. **H4** ($\beta = 0.630$, $p > 0.05$) describes the relationship between behavioral

intention and actual Google classroom utilization, implying that behavioral intention has a significant impact on actual Google classroom usage.

The findings of this study reveal that both PE and PU have a beneficial impact on respondents' behavioral intentions when they perceive Google classrooms to be simple and practical, and they are highly motivated to use such pedagogical tools into their learning process.

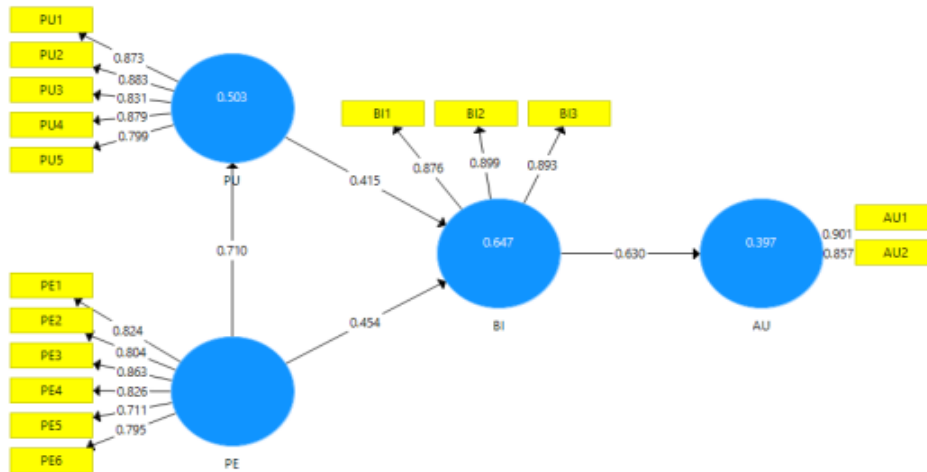


Fig. 2: Path Analysis Results

Table 3. Hypotheses Test Results

Hypothesis	Path	Path Coefficient	p-value	Remarks
H1	PE>PU	0.710	0.05	Supported
H2	PE>BI	0.454	0.05	Supported
H3	PU>BI	0.415	0.05	Supported
H4	BI>AU	0.630	0.05	Supported

4. CONCLUSION

This study uses the Technology Acceptance Model (TAM) to look at the elements that influence DHVSU students' acceptance of Google Classroom. According to the data collected, all of the characteristics have a significant impact on both behavioral intention and actual use of Google classroom. The relevance of familiarity with Google Classroom in terms of utility and ease of use is highlighted, because Google Classroom serves as a facilitator for students to create their learning activities, these two components have a significant impact on the respondents' intentions in the sample selected.

The fact that students who rely on Google classroom technology will be able to use it as a new device for leveraging their educational system is one of the exceptional results that might be of considerable relevance to any decision makers in academic institutions. The respondents'

strong dependence on this LMS, owing to the previously indicated aspects of ease of use and usefulness, supports this conclusion.

As a result of this study's findings, higher education decision-makers should understand the features of Google classrooms and develop their infrastructure accordingly. To implement this LMS, higher education institutions should provide students with training opportunities that make the complete and effective characteristics of Google classrooms more visible and widely used by end users. Additionally, this study contains limitations, and as a result, there are recommendations for future research. It is consequently proposed that: First, the TAM variables be used as-is in this analysis. As a result, additional research should be performed to ascertain additional criteria that may influence Google classroom acceptance. Second, data were obtained exclusively from students. As a result, future study should include faculty members to gain a better understanding of the factors that contribute to faculty adoption of Google Classroom.

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