

## **Students' Perception and Satisfaction of Google Classroom as Instructional Medium for Teaching and Learning**

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### Abstract

The global crisis brought on by the COVID-19 pandemic paved the way for a new normal. As a result, the higher education system has opted for a delivery model based on flexible learning. To help with the implementation of flexible learning, Google Classroom was used. Google Classroom, as learning management system, is part of the online Google Apps for Education suite of productivity applications for teachers and students in flexible learning. The goal of this study is to assess the perception and satisfaction of college education students on Google Classroom as a teaching and learning tool. This research employed a descriptive method, with the students responding to an online survey questionnaire. The sample for this study was drawn using stratified random sampling and Slovincs' formula was used to determine the number of samples drawn from the total population, which consisted of 321 students enrolled during the first semester of the school year 2021–2022. In order to answer research questions frequency count, average, percentile, and inferential statistics such as the independent-samples t-test and one-way ANOVA were used. The findings from the survey showed that majority of the college education students agreed that Google Classroom is easy to access, useful, supports communication and interaction and instruction delivery in flexible learning. When asked about their level of satisfaction, the respondents were very satisfied with the Google Classroom as instructional medium for teaching and learning. Moreover, results revealed that Google Classroom supports flexible language learning through the following: (a) assists them in completing their assignments on time; (b) helps them to be interactive in participating and engaging in fruitful discussion; and (c) motivates students to manage time. Therefore, it occurs that Google Classroom, as an educational interactive tool, has the potential to contribute to the effective delivery of flexible language teaching and learning. Furthermore, an independent sample t-test revealed that there is no statistically significant difference of the respondents' perceptions on the utilization of Google Classroom when grouped according to their profile. In addition, one-way Anova analysis of the data revealed no statistically significant differences in student perceptions and satisfaction when classified by profile. On the other hand, when the respondents' courses are taken into consideration, there is a statistically significant difference in their satisfaction with Google Classroom. This study concludes that Google Classroom as instructional medium for teaching and learning contributes to effective flexible learning. It is recommended that professional development and capacity-building programs in college majors and courses should be tailored to the current teaching and learning environment and also to help the transition into other learning management systems used in higher education, undergraduate students should be exposed to free web-based

learning applications like Google Classroom.

Keywords: Google Classroom, Students' Perception and Satisfaction, Flexible Learning, Teaching and Learning

### **Introduction**

The Covid-19 pandemic has had a significant impact on education systems worldwide. Governments worldwide have closed schools for a short time to stop the spread of the Covid-19 virus. Most countries have closed their schools for short periods during the two pandemic years that followed the virus's first appearance to keep the virus from spreading and reduce the number of infected people (UNESCO, 2020). Over 1.2 billion students around the world, as well as 28 million in the Philippines, were affected by this decision (UNESCO, 2020). As of September 18, 2021, there were 2.37 million cases in the Philippines. This number is always going up (DOH, 2021). More than 219 million people worldwide have been affected by this (Worldometer, 2021). Educators have come up with a new standard of education because of these incidents. Students and lecturers have been forced to do home-based learning and work from home in many countries because of community lockdowns and quarantines. It has led to the development of online learning tools. Lecturers had to use modular and digital tools to teach from home because public and private schools were closed to protect the health of students and lecturers. Department of Education started using the Learning Continuity Plan (LCP) during the 2020-2021 school year. This plan helps students stay on track with their education. The Commission on Higher Education (CHED) gave higher education institutions the right to teach what they wanted (HEIs). Undergraduate students can learn independently, use e-learning, and use other ways of getting their education (CHED, 2020). Several universities have put into practice their plans for teaching and starting classes, which is how it looks now. Schools in Cagayan de Oro City, the second-largest city in the country, chose a flexible learning framework that allows students to work at their own pace. This framework allows students to use mobile data to connect to the internet with the help of Globe Telecom and other networks. Since the pandemic, lecturers, and students from different institutions have used a variety of online platforms to complete their courses. Flex learning is one of the learning methods they use.

The world is now in the era of globalization, which means there is much competition to learn, make, and use new technology. One of the best ways to improve education is to use technology in the classroom. The best way to get around the problems with distance education is to use educational apps, like google classroom. As with many new applications, google classroom has a unique look and feel. Google Classroom is part of the online Google Apps for Education (GAPE) suite of productivity apps for lecturers and students learning online. These apps help them do their jobs better. This app makes it easy to communicate with students give them feedback and homework. Google Classroom

has a significant impact on how students learn because it helps lecturers be better, students use technology better, etc. A Learning Management System (LMS) called Google Classroom is a tool that Google gives to lecturers. There is a single app where students can talk, ask questions, and make assignments. Today's more digital world helps digital learners with their online learning activities. As a result of this method, lecturers can make their classrooms unique to their teaching methods. Google Classroom is a free online program with many features that make it easier for students and lecturers to communicate in an online class. All the Google for Education tools is combined into one virtual and interactive platform for students to use as a virtual classroom. When teaching, it is easier for students and lecturers to talk to each other inside and outside the classroom. This kind of e-learning is easier to set up and run. The teacher does not have to set up a class and invite students and helpers to join in. Google Classroom lets students share information, tasks, announcements, and questions, which saves time and paper. In this platform, lecturers can use Google's integrated tools like Google Docs and Google Drive to help students work together, keep track of their work, and analyze it online. As a result, students get more attention, encouraging them to ask questions, talk, and come up with new ideas. Also, Google Classroom is easy to use and saves time and money. It is mobile-friendly, flexible, professional, and authentic in teaching and learning. Because of these benefits, Google Classroom is now used at many schools and universities to teach and learn.

This study aims to find out the perception and satisfaction of college education students with Google Classroom as a teaching and learning tool. Before switching to Google Classroom, the students at the institution used its e-learning platform to run e-learning classes like Facebook Messenger, Facebook Group Page, Zoom, Kahoot, and Edmodo to run e-learning classes like Kahoot and Edmodo. There will be a class called Google Classroom later on. Google Classroom is still used by lecturers more than a year after they first started. The school administration makes sure that lecturers and students can use e-learning as a direct medium for teaching and learning. The administration also needs to come up with new ways to help them. The use of Google Classroom in the school has a lot of different things to think about, like what the goal is, what the topics are, how to do it, and how easy it is to get new things. The connection between lecturers and students at this school makes it possible to learn effectively online. However, based on what the author saw, there were some problems with Google Classroom while learning how to use it. Many students do not use Google Classroom because they do not have an excellent connection to the web. Many of the students did not know how to use Google Classroom. Students need to know what they think of Google Classroom as a learning tool to figure out how well they learned during pandemic covid-19.

### **Research Questions**

1. What is the profile of the respondents in terms of:

- Sex,
  - Course,
  - Year,
  - Usage of internet,
  - Purpose of Internet Usage?
2. What is the respondents' perception of the utilization of Google Classroom in terms of:
    - Ease of Access,
    - Usefulness,
    - Communication and Interaction, and
    - Instruction Delivery?
  3. What is the level of respondents' satisfaction with Google Classroom?
  4. Is there a significant difference of the respondent's perception on the utilization of google classroom when grouped according to their profile?
  5. Is there a significant difference in respondents' satisfaction when grouped according to profile?

### **Hypothesis**

Problems 1, 2, and 3 are hypotheses-free. For problems 4 and 5 the null hypotheses were tested at 0.05 level of significance.

H01: There is no significant difference of the respondent's perception on the utilization of google classroom when grouped according to their profile.

H02: There is no significant difference in respondents' satisfaction when grouped according to profile.

### **Methodology**

This research employed a descriptive methodology, with the student responding to an online survey questionnaire about the research's objectives and needs. The researcher presented the questionnaire's results quantitatively, including frequency tabulation and mean presentation. The quantitative data were then described and interpreted, while qualitative discussion was used to condense raw textual material into a concise summary

style. During the first semester of the school year 2021–2021, 1613 (N) students were enrolled in the college of education. The school currently enrolls 670 first-year students, 473 second-year students, 386 third-year students, and 84 fourth-year students. Students from the college of education are chosen for their Google Classroom experience.

The sample for this study was drawn using stratified random sampling. It is a sampling technique that ensures that each element (individual) in the population has an equal chance of being chosen as a sample member. By randomly selecting individuals from a strata list, stratified random sampling can ensure that specific groups are adequately represented in the sample, if not proportionately (Sharma, 2017). Additionally, it is more complex than simple random, requiring more effort; strata must be precisely defined (Tipton et al., 2014). According to Creswell and Zhang (2009), this method is used when a population contains a member or element that is not homogeneous and therefore cannot be stratified proportionally. By establishing layers, proportionate stratified random sampling is accomplished. Following that, a random number of subjects is assigned to each layer. The research sample is composed of the number of subjects in each of the study's strata. The study's target sample of students was determined using a 5% error rate. Slovin's formula was used to determine the number of samples drawn from the population. Slovin sampling is a statistical technique that ensures the selection of samples is unbiased. Slovin developed the formula in 1960 to assist in determining the appropriate sample size, particularly when the population's behavior is unknown (Altares, 2003). Because the typical target is the community, it is impractical to survey every member of its population due to financial and/or time constraints, and it is also impractical for its staff to acquire initial statistical knowledge about the target community's population behaviour, such as the mean. As such, using Slovin's formula as a starting point is strongly recommended. The number of samples in this study was determined using a 5% error rate. As such, the sample for this study consisted of 321 (n) students enrolled in a college of education during the first semester of the school year 2021–2022 (See Table 1).

Table 1: The data calculation of proportionate stratified sampling

Year Level	N	n
1st Year	670	133
2nd Year	473	94
3rd Year	386	77
4th Year	84	17
Total	1613	321

The instrument used to collect the data was adapted from Shaharane et al.'s (2016) questionnaire. It was used as a guide for students' perception and satisfaction. Instead of floating the questionnaire to the students using paper, Google forms were used to answer

the questionnaire but prior to distribution, the instrument was reviewed by six (6) experts to ensure its content validity. The experts were chosen based on their knowledge and experience in the fields of online education and learning. Several minor revisions were made in response to their recommendations, including paraphrasing, deleting items, rephrasing sentences, and renumbering items to fit the local context. Additionally, a pilot study was conducted to ensure the validity of the results. It involved thirty students enrolled in a college of education. Based on the results, Cronbach's alpha is greater than 0.9.

Pilot testing and data collection were conducted in Google Classroom and submitted to a separate classroom folder accessible only to the researcher. Finally, under data privacy laws, questionnaires submitted via Google Classroom were disposed of and deleted after a week or immediately after raw data was tabulated and significant themes were identified. The result was generated from the Google forms used to interpret the data. The CSV format data was exported for pivot analysis using Google Sheets.

Three sections comprise the survey questionnaire, which contains 33 questions. Part I of the survey required respondents to provide personal information such as their sex, course, year, internet usage, and the reason for their internet usage. Part II, on the other hand, contains 24 question statements organized into four domains: Domain 1 consists of six questions that probe students' perceptions of Google Classroom's ease of use; Domain 2 consists of seven questions that probe students' perceptions of the application's usefulness; Domain 3 consists of six questions that probe students' perceptions of the application's communication and interaction capabilities; and Domain 4 consists of five questions that probe students' perceptions of perceived instruction delivery. On the other hand, Part III consists of four questions about students' satisfaction with Google Classroom. Additionally, items 6–24 were scored on a four-point scale ranging from 1 (strongly disagree) to 4 (strongly agree), which can be shown in Table 2, 3, 4, and 5, whereas items 25–28 were assessed using a Likert type question with a scale ranging from 1 (very dissatisfied) to 4 (very satisfied), which can be shown in Table 6.

Table 2: Scoring table on students' perception on ease of access

Scale	Mean	Description	Interpretation
4	3.26-4.0	Strongly Agree	Very Easy
3	2.51-3.25	Agree	Easy
2	1.76-2.50	Disagree	Not Easy
1	1.0-1.75	Strongly Disagree	Not Very Easy

Table 3: Scoring table on students' perception on usefulness

Scale	Mean	Description	Interpretation
4	3.26-4.0	Strongly Agree	Very Useful
3	2.51-3.25	Agree	Useful
2	1.76-2.50	Disagree	Not Useful
1	1.0-1.75	Strongly Disagree	Not Very Useful

Table 4: Scoring table on students' perception on communication and interaction

Scale	Mean	Description	Interpretation
4	3.26-4.0	Strongly Agree	Very Interactive
3	2.51-3.25	Agree	Interactive
2	1.76-2.50	Disagree	Not Interactive
1	1.0-1.75	Strongly Disagree	Not Very Interactive

Table 5: Scoring table on students' perception on instructional delivery

Scale	Mean	Description	Interpretation
4	3.26-4.0	Strongly Agree	Highly Delivered
3	2.51-3.25	Agree	Delivered
2	1.76-2.50	Disagree	Poorly Delivered
1	1.0-1.75	Strongly Disagree	Very Poorly Delivered

Table 6: Scoring table on students' satisfaction

Scale	Mean	Description	Interpretation
4	3.26-4.0	Strongly Agree	Very Satisfied
3	2.51-3.25	Agree	Satisfied
2	1.76-2.50	Disagree	Dissatisfied
1	1.0-1.75	Strongly Disagree	Very Dissatisfied

The frequency count, average, and percentile were used to answer research question 1. The results were then presented in Microsoft Excel tables for easy interpretation and discussion. The mean and standard deviation were used to answer research questions 2 and 3. Tables were used to present the information gathered. Finally, inferential statistics such as the independent-samples t-test and one-way ANOVA were used to answer research questions 4 and 5. SPSS Statistics 20 was used to analyze the data and identify significant themes that emerged from the raw data.

### Results and Discussions

1. What is the profile of the respondents in terms of:
  - Sex,
  - Course,

- Year,
- Usage of internet, and
- Purpose of Internet Usage?

Table 7: Frequency distribution of the respondents' characteristics

Characteristics	Frequency ( <i>f</i> )	Percentage (%)
Sex		
Male	41	13%
Female	280	87%
Total	321	100%
Course		
BACOM	7	2%
BECED	15	5%
BEED	211	66%
BSED-English	57	18%
BSED-Filipino	31	10%
Total	321	100%
Year Level		
1st Year	133	41%
2nd Year	94	29%
3rd Year	77	24%
4th Year	17	5%
Total	321	100%

Table 7 depicts the frequency distribution of respondents' characteristics based on their responses. The majority of the 321 respondents (280, or 87 percent) were female, with 41, or 13 percent, being male. 211 people participated in the BEED survey, which corresponded to 66 percent of the total population. BSED-English has 57 students (18%), BSED-Filipino has 31 students (10%), BECED has 15 students (5%) and BACOM has seven students (2%). Additionally, 133 students (41% of the total) are first-year students, 94 students (29% of the total) are second-year students, 77 students (24% of the total) are third-year students, and 17 students (5% of the total) are fourth-year students. In light of the data, it appears that men are less likely than women to enroll in postsecondary education, as evidenced by the fact that 66 percent of respondents are enrolling in a Bachelor of Elementary Education (BEED) course. Furthermore, it implies that perceptions of teaching as "women's work" have a significant impact on the feminization of the profession (Kelleher et al., 2011; Martino, 2008). According to the World Bank, female lecturers account for 65.73 percent of all lecturers in elementary schools. In 2016, female primary school lecturers made up 87.54 percent of all primary school lecturers (World Bank Data, August 2019). More intriguingly, according to data from the World Bank, the

proportion of women in the teaching profession appears to be steadily increasing. Men are referred to as the "dying breed" in schools because of this phenomenon, which has sparked widespread concern among the general public (Thomas, 2016). As an additional point of reference, Clifford stated that between 1885 and World War I, magazines and professional journals noted that women were taking over the teaching profession and displacing men (Martino, 2008). According to the Zippia database for the United States, the state employs more than 1,759,771 elementary school lecturers. Female elementary school lecturers make up approximately 74.8 percent of all lecturers, compared to 20.8 percent of secondary school lecturers [Zippia, 2021], and approximately 76 percent of public-school lecturers make up 24 percent of all lecturers [Digest of Education Statistics, 2019], with male elementary school lecturers making up a smaller proportion of all lecturers (11 percent vs. 36 percent).

Table 8: Frequency distribution of the respondents' internet usage

Internet Usage	Frequency (f)	Percentage (%)
Less than 1 hour		
Male	3	7%
Female	11	4%
1-2 hours		
Male	14	34%
Female	52	19%
3-5 hours		
Male	7	17%
Female	89	32%
More than 5 hours		
Male	17	41%
Female	128	46%

Table 8 shows the frequency with which respondents used the internet, based on the number of responses. According to the data, 46 percent of female respondents and 41 percent of male respondents use the internet for more than 5 hours per day, while only 4 percent of female respondents and 7 percent of male respondents use the internet for less than an hour per day, respectively. The findings show that both male and female students are familiar with the internet and other forms of online media, according to the research. This outcome is expected as a result of the flexible learning approach that is being implemented in higher education institutions, which maximizes the use of both digital and non-digital learning resources. A greater reliance on online resources and platforms than ever before has resulted from the educational shift away from traditional face-to-face instruction and toward blended learning environments and online courses. During the course of the teaching and learning process, online communication becomes an increasingly important link in the interaction between lecturers and students.

Table 9: Frequency distribution of the respondents' purpose of internet usage

Purpose of Internet Usage	Frequency (f)	Percentage (%)
Entertainment	27	8%
On-line learning	221	69%
Social Media	73	23%
Total	321	100%

Table 9 depicts the frequency distribution of the respondents' reasons for using the internet, as indicated by their responses. In response to a question about why they go online, 69 percent said they do so for online learning, 23 percent said they do so for social media, and 8 percent said they do it for entertainment. Among the findings are that the majority of respondents are familiar with the internet and have spent more than 5 hours per week on online learning; additionally, it demonstrates how physical separation during the pandemic has influenced students' perceptions toward using the internet for online learning in the face of adversity such as the COVID-19 pandemic. A further conclusion reached by Gorra and Bathi (2016) was that the majority of students in Philippine state colleges and universities are likely to use technology in the classroom for beneficial purposes, corroborating the view that technology can help enhance learning-related activities in the classroom.

2. What is the respondents' perception of the utilization of Google Classroom in terms of:
  - Ease of Access,
  - Usefulness,
  - Communication and Interaction, and
  - Instruction Delivery?

Table 10: Respondents' perception of the utilization of google classroom on ease of access

Statements	n	Mean	SD	Description	Interpretation
1. I find it easy to sign on to the Google Classroom.	321	3.36	0.66	Strongly Agree	Very Easy
2. I can easily access the attachments in the Google Classroom	321	3.23	0.69	Agree	Easy
3. I can easily send and receive documents to and from Google Classroom.	321	3.27	0.73	Strongly Agree	Very Easy
4. I find it easy to submit my assignment on Google Classroom.	321	3.35	0.71	Strongly Agree	Very Easy
5. I find it easy to navigate the interface of Google Classroom.	321	3.22	0.68	Agree	Easy
6. I find it easy to understand the Google Classroom interference.	321	3.25	0.66	Agree	Easy
Total	321	3.28	0.60	Strongly Agree	Very Easy

Table 10 shows the perceptions of the utility of Google Classroom in terms of ease of access as expressed by the respondents. With a mean score of 3.36 (SD = 0.66), the respondents strongly agreed that they find it very easy to sign into the Google Classroom. According to the data, students' perceptions of the application's ease of use indicate that it is very easy to use. It follows from these students strongly agreed that this platform is relatively ubiquitous in terms of their educational activities, given that it can be accessed via laptops or smartphones running a wide range of operating systems. Users can access Google Classroom by downloading the Google Classroom application from either the Google Play Store or the Apple App Store on their mobile devices. This application can be accessed from a desktop computer by visiting [classroom.google.com](https://classroom.google.com). It is possible for users to log into the system using their Google email credentials. Whenever a new class is created, lecturers invite students to join by sending them a unique code that is made up of letters and numbers (Rae & A'Malley, 2017). But it was also discovered that the component responsible for navigation has the lowest mean value, with a mean of 3.22 (SD=0.68). Students' responses varied in this component as a result of their varying levels of exposure to the application, which was particularly prevalent among those who participated in online courses, due to the availability of their gadget. As a result, lecturers must be readily available to provide technical assistance to learners or conduct online walkthroughs as needed to ensure that they meet the needs of their students. Additionally, they should take into account the students' access to technological devices.

Table 11: Respondents' perception of the utilization of google classroom on usefulness

Statements	n	Mean	SD	Description	Interpretation
1. Google Classroom makes quality of learning activity excellent.	321	3.17	0.67	Agree	Useful
2. Google Classroom ensures social interaction (lecturer vs students and students vs student).	321	3.14	0.66	Agree	Useful
3. Google classroom helps me submit assignment on time.	321	3.47	0.66	Strongly Agree	Very Useful
4. Google classroom allows me to download class notes, slides, references, and review materials.	321	3.21	0.66	Agree	Useful
5. Google Classroom feedback from the teacher is useful.	321	3.35	0.59	Strongly Agree	Very Useful
6. Google Classroom grading system helps me monitor my performance and understanding in the subject.	321	3.38	0.61	Strongly Agree	Very Useful
7. Google Classroom ensures the consistency of learning objectives, learning content and assessment.	321	3.26	0.61	Strongly Agree	Very Useful
Total	321	3.28	0.52	Strongly Agree	Very Useful

Based on the responses, the respondents' perceptions on the utility of Google Classroom in terms of its usefulness are depicted in Table 11. Data showed that respondents strongly agreed that Google Classroom assists them in completing their assignments on time ( $x = 3.47$ ,  $SD = 0.66$ ). According to this interpretation, students believe that Google Classroom allows them to submit the assignment because it enables them to complete and submit the assignment electronically, saving them both time and effort in the process. And they can learn how to monitor their lecturers' exercises and projects through the use of Google Classroom (Sukmawati & Nensia, 2019). Students can use Google Classroom to store documents and other materials, and they can also learn how to monitor their lecturers' exercises and projects (Richards, 2015). Some lecturers also liked to post materials

presented in class for review after the lesson was completed, so that students could access them even after the classroom learning session was over. As a result, it is beneficial to activate the students' prior knowledge before allowing them to participate in the classroom discussion.

Table 12: Respondents' perception of the utilization of google classroom on communication & interaction

Statements	n	Mean	SD	Description	Interpretation
1. I feel comfortable conversing through Google Classroom as medium of communication.	321	3.19	0.67	Agree	Interactive
2. The lecturer helps me to participate and engage in productive discussion.	321	3.24	0.60	Agree	Interactive
3. I feel comfortable interacting with other students during the activity in Google Classroom.	321	3.12	0.69	Agree	Interactive
4. In Google Classroom activities, my point of view is acknowledged by other students.	321	3.14	0.60	Agree	Interactive
5. The lecturers are enthusiastic in teaching and explaining via the Google Classroom.	321	3.14	0.61	Agree	Interactive
6. The lecturers are friendly, approachable and could be easily contacted in Google Classroom.	321	3.21	0.66	Agree	Interactive
Total	321	3.17	0.53	Agree	Interactive

Based on the responses to the survey on Table 12, the following is a breakdown of respondents' perceptions of the utility of Google Classroom in the areas of communication and interaction: As shown by the data, all of the respondents agreed that the lecturer is interactive in terms of assisting them to participate and engage in fruitful discussion ( $x = 3.24$ ,  $SD = 0.60$ ). According to the results, students can interact with one another through the discussion board because they also believe that lecturers are friendly, approvable, and

can be easily contacted in the Google Classroom ( $x = 3.21$ ,  $SD = 0.66$ ), which encourages better collaboration between them. Alim et al. (2019) conducted research at Daffodil International University, focusing on teachers' and students' perceptions of using Google Classroom. Generally, teachers use Google Classroom because it is required by the university and results showed that the use of Google Classroom improves teacher-student interaction. It is followed by the level of comfort with interacting with other participants in this activity, which has the lowest mean value (3.12 standard deviation = 0.69). According to the results, respondents do not believe that interacting with other participants in a virtual world is more comfortable than interacting with other variables. As a result, lecturers should place a greater emphasis on developing an interactive platform for online learning in order to facilitate active online learning. It is consistent with Swan's (2001) assertion that students report higher levels of satisfaction with the course and greater levels of learning when they perceive more interaction with the teacher; this finding supports Swan's claim. GC's chat and discussion features are not as robust or valuable as those found on social media, which allows this to be a possibility. As a result of the inherent characteristics of this medium, students are uncomfortable interacting through it. Consequently, lecturers should place an emphasis on developing an engaging online learning platform in order to ensure that students participate in class.

Table 13: Respondents' perception of the utilization of google classroom on instructional delivery

Statements	n	Mean	SD	Description	Interpretation
1. The Lecturer provides clear instructions on how to participate in Google Classroom activities	321	3.39	0.61	Strongly Agree	Highly Delivered
2. The Lecturer clearly communicated important due dates/ time frames for learning activities.	321	3.44	0.63	Strongly Agree	Highly Delivered
3. The Lecturer clearly communicated important course topics.	321	3.40	0.61	Strongly Agree	Highly Delivered
4. The Lecturer helps me keep on task	321	3.37	0.59	Strongly Agree	Highly Delivered
5. The Lecturer provided clarifying explanations/ feedback that allowed me to better understand the content of the course.	321	3.36	0.62	Strongly Agree	Highly Delivered
Total	321	3.39	0.54	Strongly Agree	Highly Delivered

Table 13 shows the respondents' perceptions of the utility of Google Classroom in terms of instructional delivery, as expressed in their responses to the question. Almost all of the respondents agreed that the lecturer provided clear instructions on how to participate in course learning activities, communicated critical due dates/time frames for learning activities, and assisted course participants in remaining focused on their goals. Additional responses strongly agreed that the lecturer communicated critical course topics clearly and provided feedback that assisted me in better understanding the course's content, which I found particularly encouraging. This indicates that respondents believed lecturers communicated their instructions clearly and that respondents were able to comprehend them better as a result of their responses. It appears that the findings of this study are consistent with those of DiCicco (2016) and Fitrieningtiyas et al. (2019), namely, that students and teachers perceived Google Classroom as an appealing medium for teacher-

student interaction and that the instructions given by teachers and received by students were simple to understand and straightforward. It appears that Shaharane and colleagues (2016) were correct when they discovered that all of the components were consistent.

3. What is the level of respondents' satisfaction with Google Classroom?

Table 14: Respondents' satisfaction with google classroom

Statements	N	Mean	SD	Description	Interpretation
1. Google Classroom helps me meet my personal goals through the medium introduced.	321	3.22	0.70	Agree	Satisfied
2. I would recommend this method of learning to be applied to other appropriate subjects.	321	3.34	0.66	Strongly Agree	Very Satisfied
3. Google classroom is my first choice in active learning compared to other methods.	321	3.27	0.69	Strongly Agree	Very Satisfied
4. I like the Google Classroom as a learning initiative and motivation booster.	321	3.30	0.68	Strongly Agree	Very Satisfied
Total	321	3.28	0.63	Strongly Agree	Very Satisfied

Table 14 summarizes respondents' satisfaction of Google Classroom as a teaching and learning platform. When asked about their level of satisfaction, all of the respondents strongly agreed that they were very satisfied with the Google Classroom as instructional medium for teaching and learning. This implies that Google Classroom provides immediate feedback and is an excellent learning platform due to its features and benefits, which include active participation in online class activities, ease of use when submitting online tasks, easy access to reference materials, and an increase in student motivation as a result of online activities and discussions. According to Okmawati (2020) Google Classroom is free to use and has no restrictions on the number of students who can participate. The vast majority of respondents strongly agreed that Google Classroom is an excellent tool for English learning outside of the traditional classroom setting ( $\bar{x}=3.34$ ,  $SD=0.66$ ). When it came to online learning, the delivery of materials and assignments was quite good. Students were of the opinion that the course materials and assignments that were delivered were appropriate for the course. In addition, teachers led discussion sessions to address the

concerns of the students in the class. Students have stated that they struggled to comprehend the direction and materials provided in the assignments. They have also stated that traditional learning seemed more interesting to them than online learning. They asserted that the face-to-face meeting allowed them to more easily listen to and observe the lecturer's explanation because they were in the same room. Guri-Rosenblit (2006) agrees, stating that humans' need to socialize is critical to their well-being and development. This explains why the vast majority of students prefer classroom instruction over other forms of instruction. According to the findings of the study, students had no difficulty utilizing any of the features of Google Classroom. This resulted in several advantages, including the ability to submit assignments on time, receive feedback from lecturers, comprehend course descriptions, and communicate effectively and efficiently with their instructors. According to the survey results, in general, students were pleased with the use of Google Classroom in their courses. Finally, because Google Classroom is a task-oriented online application, as demonstrated in the preceding discussions, active participation between educators and students is harmed. As a result, faculty members are expected to use a variety of delivery modes and instructional interventions to meet their students' diverse needs to ensure the success of flexible language teaching and learning.

4. Is there a significant difference of the respondent's perception on the utilization of google classroom when grouped according to their profile?

Table 15: Result of independent sample t-test of the respondents' perception on the utilization of google classroom when grouped according to profile

Respondents' Characteristics	Ease of Access					Usefulness					Communication & Interaction					Instruction delivery				
	n	Mean	SD	Test Stat	Description	n	Mean	SD	Test Stat	Description	n	Mean	SD	Test Stat	Description	n	Mean	SD	Test Stat	Description
Sex																				
Male	41	3.28	0.643	t-value: -0.007	Not Statistically Significant	41	3.24	0.421	t-value: -0.516	Not Statistically Significant	41	3.11	0.482	t-value: -0.803	Not Statistically Significant	41	3.34	0.466	t-value: -0.693	Not Statistically Significant
Female	280	3.28	0.587	p-value: 0.995		280	3.29	0.532	p-value: 0.606		280	3.18	0.541	p-value: 0.423		280	3.4	0.551	p-value: 0.489	
Course																				
BACOM	7	2.91	0.674	f-value: 2.433 p-value: 0.067	Not Statistically Significant	7	3.1	0.306	f-value: 1.305 p-value: 0.268	Not Statistically Significant	7	2.9	0.384	f-value: 0.757 p-value: 0.554	Not Statistically Significant	7	3.09	0.324	f-value: 1.000 p-value: 0.408	Not Statistically Significant
BECED	15	3.62	0.396			15	3.44	0.352			15	3.19	0.321			15	3.49	0.489		
BEED	211	3.24	0.595			211	3.29	0.502			211	3.19	0.529			211	3.42	0.541		
BSED-English	57	3.34	0.526			57	3.31	0.577			57	3.17	0.574			57	3.35	0.528		
BSED-Filipino	31	3.34	0.695			31	3.13	0.595			31	3.08	0.598			31	3.32	0.615		
Year Level																				
1st Year	133	3.21	0.62	f-value: 1.386 p-value: 0.247	Not Statistically Significant	133	3.28	0.491	f-value: 0.802 p-value: 0.494	Not Statistically Significant	133	3.18	0.519	f-value: 0.489 p-value: 0.690	Not Statistically Significant	133	3.39	0.555	f-value: 0.333 p-value: 0.801	Not Statistically Significant
2nd Year	94	3.36	0.536			94	3.31	0.495			94	3.21	0.519			94	3.43	0.51		
3rd Year	77	3.28	0.571			77	3.29	0.56			77	3.13	0.554			77	3.36	0.543		
4th Year	17	3.39	0.747			17	3.1	0.655			17	3.09	0.648			17	3.31	0.617		
Internet Usage																				
Less than 1 hour	14	3.23	0.646	f-value: 2.107 p-value: 0.099	Not Statistically Significant	14	3.3	0.402	f-value: 0.680 p-value: 0.565	Not Statistically Significant	14	3.08	0.369	f-value: 0.532 p-value: 0.661	Not Statistically Significant	14	3.31	0.475	f-value: 1.247 p-value: 0.293	Not Statistically Significant
1-2 hours	66	3.14	0.671			66	3.2	0.496			66	3.11	0.543			66	3.29	0.577		
3-5 hours	96	3.27	0.551			96	3.32	0.521			96	3.2	0.55			96	3.45	0.542		
More than 5 hours	145	3.36	0.571			145	3.29	0.538			145	3.19	0.534			145	3.41	0.527		
Purpose of Internet Usage																				
Entertainment	27	3.4	0.557	f-value: 1.429 p-value: 0.241	Not Statistically Significant	27	3.3	0.398	f-value: 0.016 p-value: 0.984	Not Statistically Significant	27	3.06	0.442	f-value: 1.429 p-value: 0.241	Not Statistically Significant	27	3.36	0.484	f-value: 0.311 p-value: 0.733	Not Statistically Significant
On-line learning	221	3.24	0.597			221	3.28	0.512			221	3.2	0.527			221	3.41	0.542		
Social Media	73	3.35	0.59			73	3.29	0.58			73	3.14	0.582			73	3.35	0.561		

When two unrelated groups have the same continuous dependent variable, the independent-samples t-test is used to compare their means, and when two or more independent groups have the same continuous dependent variable, the one-way analysis of variance is used to determine if there are any statistically significant differences between their means (Παπακωνσταντίνου, 2017). Results of the independent sample t-test of respondents' perceptions of the use of Google Classroom when grouped according to sex are shown in Table 15, as is the output of the one-way ANOVA analysis to determine whether there is a statistically significant difference between group means on course, year level, internet usage, and the purpose for which they use the internet in the following questions: When using Google Classroom, the data shows that there is no statistically significant difference in the respondents' sex. The p values for ease of access, usefulness, communication and interaction, and instruction delivery were all 0.995, 0.606, 0.423, and 0.489 respectively. Also, data shows the significance values of ease of access, usefulness, communication and interaction, and instruction delivery are all greater than 0.05 [see test stat on Table 15], indicating that there is no statistically significant difference in the use of Google Classroom between courses, year levels, internet usage, or the purpose of internet usage. Due to the fact that the p value is greater than the threshold of 0.05 significance, the null hypothesis is accepted: H01. There is no significant difference of the respondents' perceptions on the utilization of Google Classroom when grouped according to their profile.

As research findings become available, it is becoming clear that online education has successfully overcome the "no significant difference" phenomenon that has plagued the industry for many years (Shea, & Bidjerano, 2013). Traditional classroom instruction, as well as online education and its predecessor, "distance learning," have been held to produce no statistically significant differences in learning outcomes when compared to those obtained through traditional classroom instruction for more than a decade according to conventional wisdom. A study conducted by Kado and Yonten (2020) compared the opinions of male and female students about the effectiveness of the Google classroom and found no statistically significant differences between them. Additionally, at a statistically significant level of 0.05, there is no statistically significant difference between average students' attitudes toward electronic-learning while studying in a "Google classroom" and students studying in a traditional method between the two groups (Ali & Ghazi, 2019). Conclusion: In order for lecturers or students to consider using Google Classroom when the situation calls for it, it is critical to first determine their perceptions of the utility of Google Classroom in terms of language learning and teaching processes, as well as its accessibility.

5. Is there a significant difference in students' satisfaction when grouped according to profile?

Table 16: Comparison of student's satisfaction with google classroom when grouped according to profile

Respondents' Characteristics	Personal Goal					Method of Learning					Active Learning					Learning Motivation				
	n	Mean	SD	Test Stat	Description	n	Mean	SD	Test Stat	Description	n	Mean	SD	Test Stat	Description	n	Mean	SD	Test Stat	Description
<b>Sex</b>																				
Male	41	3.12	0.678	f-value: 0.822 p-value: 0.365	Not Statistically Significant	41	3.32	0.65	f-value: 0.054 p-value: 0.816	Not Statistically Significant	41	3.27	0.708	f-value: 0.000 p-value: 0.997	Not Statistically Significant	41	3.2	0.715	f-value: 1.168 p-value: 0.281	Not Statistically Significant
Female	280	3.23	0.707			280	3.34	0.664			280	3.27	0.69			280	3.32	0.674		
<b>Course</b>																				
BACOM	7	2.57	0.535	f-value: 2.583 p-value: 0.037	Statistically Significant	7	2.86	0.9	f-value: 3.008 p-value: 0.019	Statistically Significant	7	2.71	0.756	f-value: 2.742 p-value: 0.029	Statistically Significant	7	2.57	0.787	f-value: 3.452 p-value: 0.009	Statistically Significant
BECED	15	3.27	0.594			15	3.6	0.507			15	3.53	0.64			15	3.53	0.516		
BEED	211	3.28	0.692			211	3.39	0.641			211	3.3	0.698			211	3.36	0.67		
BSED-English	57	3.12	0.683			57	3.25	0.576			57	3.28	0.59			57	3.19	0.639		
BSED-Filipino	31	3.06	0.814			31	3.13	0.846			31	3.03	0.752			31	3.19	0.749		
<b>Year Level</b>																				
1st Year	133	3.18	0.705	f-value: 2.278 p-value: 0.080	Not Statistically Significant	133	3.35	0.665	f-value: 2.161 p-value: 0.093	Not Statistically Significant	133	3.28	0.711	f-value: 1.057 p-value: 0.367	Not Statistically Significant	133	3.29	0.672	f-value: 1.622 p-value: 0.184	Not Statistically Significant
2nd Year	94	3.35	0.667			94	3.45	0.616			94	3.32	0.691			94	3.4	0.693		
3rd Year	77	3.17	0.696			77	3.23	0.647			77	3.25	0.632			77	3.25	0.632		
4th Year	17	2.94	0.827			17	3.12	0.857			17	3	0.791			17	3.06	0.827		
<b>Internet Usage</b>																				
Less than 1 hour	14	3	0.679	f-value: 1.264 p-value: 0.287	Not Statistically Significant	14	3.36	0.842	f-value: 1.740 p-value: 0.159	Not Statistically Significant	14	3.21	0.802	f-value: 0.493 p-value: 0.687	Not Statistically Significant	14	3.14	0.864	f-value: 1.544 p-value: 0.203	Not Statistically Significant
1-2 hours	66	3.11	0.726			66	3.2	0.638			66	3.18	0.742			66	3.17	0.692		
3-5 hours	96	3.25	0.711			96	3.44	0.646			96	3.3	0.713			96	3.36	0.682		
More than 5 hours	145	3.26	0.687			145	3.34	0.658			145	3.29	0.645			145	3.34	0.648		
<b>Purpose of Internet Usage</b>																				
Entertainment	27	3.04	0.649	f-value: 1.827 p-value: 0.163	Not Statistically Significant	27	3.33	0.679	f-value: 1.281 p-value: 0.279	Not Statistically Significant	27	3.22	0.751	f-value: 0.962 p-value: 0.383	Not Statistically Significant	27	3.19	0.736	f-value: 1.659 p-value: 0.192	Not Statistically Significant
On-line learning	221	3.26	0.697			221	3.38	0.646			221	3.3	0.69			221	3.35	0.668		
Social Media	73	3.14	0.732			73	3.23	0.698			73	3.18	0.674			73	3.21	0.686		

\*Significant at ( $\alpha \leq 0.05$ )

In statistical analysis, the one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences in the means of two or more unrelated (independent) groups (although it is more commonly used when there is a minimum of three, rather than two groups). Information in Table 16 shows the results of the one-way ANOVA analysis and whether or not there is a statistically significant difference between the means of our two groups. On the basis of sex, year level, internet usage, and the purpose of internet usage [see test stats on Table 16], we can see that the significance value of indicators such as personal goals, methods of learning, active learning, and learning motivation when grouped together is greater than the test significant level of 0.05 [see test stats on Table 16]. As a result, there is no statistically significant difference in satisfaction with Google Classroom based on any of the characteristics examined in this study. The null hypothesis is accepted because the p value is greater than the threshold of 0.05 significance, which means that the following is true: When students are divided into groups based on their profile, such as sex, year level, internet usage, and purpose of internet usage, there is no statistically significant difference in their satisfaction. Individual indicators such as personal goals ( $p = 0.037$ ), methods of learning ( $p = 0.019$ ), active learning ( $p = 0.029$ ), and learning motivation ( $p = 0.009$ ), on the other hand, have p values that are less than or equal to 0.05. As a result, when the respondents' courses are taken into consideration, there is a statistically significant difference in their satisfaction with Google Classroom. The null hypothesis is rejected as a result of the fact that the p value is less than the threshold of 0.05 statistical significance. When students are divided into groups based on their profile, there is no statistically significant difference in their satisfaction. This implies that each course has a unique set of activities as well as a unique method of instruction for each course when Google Classroom is applied to the appropriate subject. A more radical approach to different activities on Google Classroom is taken by Izenstark and Leahy (2015), who identify five benefits of learning activities that can be found on the platform. Setup is quick and simple; time savings are realized; collaboration and communication are improved; data storage is centralized; and resources are shared quickly. The variety of activities available on Google Classroom, it could be concluded, allows students to receive timely updates about the current lesson, improve their comprehension of the material, and gain access to multimedia equipment that enhances their eLearning experience (Anshari et al., 2017). Various Google Classrooms can be created for students to join based on their individual needs. A lecturer can then categorize their posts by subject or topic, for example, art, English, or mathematics. For example, students can then select Maths to view only Maths-related posts (Pepper, n.d). As a result, lecturers must consider the possibility that students who require additional support or who face additional challenges can join a Google Classroom class focused on a particular topic.

### **Conclusions**

As a result of the findings of this study, the following conclusions have been reached: The use of Google Classroom, as demonstrated in this paper, is a successful active learning tool on a large scale. It is also demonstrated that students are generally satisfied with the use of Google Classroom. Through observations, polls, and evaluations of student demographics and course design, the researcher discovered that we should be constantly trying to figure out what factors contribute to increased student satisfaction with the learning process, as well as how we can learn new information more effectively, in order to improve our overall learning outcomes. According to the results of the survey, the vast majority of respondents, both male and female, spend more than 5 hours per day on the internet, according to the findings. Because of the advancement of technology, the use of the internet in the educational process is becoming increasingly important in today's world. In the first place, the overwhelming majority of those who responded expressed a strong belief in the ability of Google Classroom to support instruction delivery in the classroom. In terms of potential benefits of Google Classroom in terms of accessibility, usability, and student satisfaction, a similar level of agreement was reached, all of which were discussed. One of the most frequently expressed positive impressions of Google Classroom among students was that it was both useful and simple to use. They also appreciated how easily it could be reached. It turns out that when students are divided into groups based on their profiles, there is no statistically significant difference between how they perceive the subject matter and how they perceive it. Those who are divided into groups based on the course report a statistically significant difference in their levels of satisfaction with the course overall. Our goal is to train online lecturers and develop educational support systems that will allow students to thrive in an online environment, which will benefit everyone involved. Resources from Google Classroom should be integrated into the teaching and learning process in appropriate subject areas rather than being used as a convenient utility tool, according to the organization. It is also an educational tool that will help to improve the overall quality of teaching and learning between lecturers and students, which is particularly significant.

### **Recommendations**

In light of the findings, the following suggestions are made: First and foremost, higher education must address the need for excellent internet access in the area in order to provide students with uninterrupted teaching and learning. Second, the study's key findings suggest that higher education institutions adopting a flexible learning approach should include Google Classroom as part of their online and/or blended learning strategy. ICT instructional materials must also be identified and prepared to maximize the potential of any online learning application. Third, professional development and capacity-building

programs should be tailored to specific college majors and courses, as well as the current teaching and learning environment. Faculty capacity-building programs in higher education institutions must include training in ICT integration, such as how to use Google Classroom for effective and efficient distance learning. Fourth, in order to create a more dynamic and interactive digital class, teachers must provide a variety of resources – images, videos, and links to websites – in the Google Classroom application. Other messaging apps combined with Google Classroom could help improve the delivery of instruction and the learning process in a flexible learning environment. Furthermore, when using web-based learning applications like Google Classroom to create a learning-oriented rather than task-oriented flexible learning experience, educators' creativity, active presence, and meaningful interaction are required. Fifth, to help them transition into other learning management systems used in higher education, undergraduate students should be exposed to free web-based learning applications like Google Classroom. Finally, more research should be done on a larger scale and using a variety of research techniques, such as experimental, interviewing, and observation, among others.

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