



AN EFFECT OF APPLICATION GOOGLE CLASSROOM IN LEARNING ENGLISH: A CASE STUDY IN ACCOUNTING STUDY PROGRAM AT MIND DEVELOPMENT UNIVERSITY

Yossy Fadly^{1*}, Doni Efrizah², Dedi Purwanto³, Yurika Aulia⁴

^{1,2,4} Accounting Department, Universitas Pembangunan Panca Budi, Indonesia

³ Computer System Department, Universitas Pembangunan Panca Budi, Indonesia

*Corresponding author: yossyfadly@dosen.pancabudi.ac.id

ARTICLE INFO

Date received : 21 Oct 2022
Revision date : 22 Nov 2022
Date received : 29 Nov 2022

Keywords:

Google Classroom, Learning Model, English

ABSTRACT

This research relates to the application of Google Classroom in learning English in the Accounting Study Program at Pembangunan Panca Budi University. The aim is to determine the effect of using Google Classroom in supporting Accounting learning. Respondents consisted of active students from class 2019, 2020, 2021 and 2022 who had used Google Classroom in semesters 1 and 2. The data collection method used was a research questionnaire whose data was analyzed using the SPSS program. The results of the research will later be published in the SINTA National Journal which has previously been presented at a national seminar, and for additional output a book/monograph with an ISBN will be published on the development of teaching models for courses in the Accounting study program.

INTRODUCTION

Today's developments cannot be separated from information technology (IT), which is also growing. Information technology is one of the many tools that managers use in anticipating change (Laudon and Laudon, 2014). With the development of IT, many people innovate to create IT that can be used to make it easier for other people to carry out their daily activities, from sending messages, tasks and communicating online, searching and buying goods online, ordering tickets and modes of transportation online and so on. Therefore, many aspects of human life are influenced by developments in information technology, one of which is related to the learning process in education.

The current learning process is different from in the past where classes were always held face to face. With the development of IT, there are many applications and websites that can be used as supporting media to replace the learning process in the classroom. An example is the Virtual Class at the Panca Budi Development University (UNPAB). Virtual Class itself is a website developed by UNPAB as a learning support medium which can be used to collect assignments given by lecturers when the class is empty, as well as distribution of material by lecturers to students. But now Virtual Class is rarely used and replaced by E-learning at Pembangunan Panca Budi University or Google Classroom, which has more complete features.

Google Classroom is a learning management system for schools with the aim of facilitating the creation, distribution and assessment of paperless assignments. Google Classroom acts as a media or tool that can be used by teachers and students to create online classes or virtual classes, where lecturers can make announcements or assignments to students that are received in real time (real time) by these students. What distinguishes Google Classroom from Virtual Class is that with Virtual Class students cannot find out the information conveyed by lecturers directly (real time) because the system of Virtual Class itself uses a website, so students must log in first to find out if there is any information or the latest assignments from lecturer. For Google Classroom,



According to research conducted by Izenstark and Leahy (2015), the design of Google Classroom is familiar to students because they already use several products from Google via their Google Apps account. Students really like how the connectivity is between Google Classroom and Google Drive accounts. They don't need to worry about saving documents on class computers because the autosave feature and the use of Drive make assignments easier to store and organize.

Based on the results of research conducted by Nabiyeu in Filippova's research (2015), online learning has several advantages and disadvantages. The advantages are learning at their own pace, availability of learning for everyone, getting feedback, workability of the learning process, social equality, individual approach and learning that is cheaper. However, there are also some disadvantages of online learning such as the lack of direct communication (face to face) between students and teachers, individual conditions that are not considered in distance learning, direct access to the source of the material being taught, no training conducted and the need for Internet access. and supporting devices (computers or smartphones).

Based on research conducted by Aparicio et al. (2016), they indicated that students see online learning systems (e-learning) as being able to increase productivity and facilitate their assignments. For this reason, the use of online learning has a positive impact on the success of the university as a whole. Research conducted by Marfuatun et al. (2013), said that the level of implementation of cooperative learning methods online is quite good, but there needs to be adequate support for both computers and e-learning servers.

This study refers to research conducted by Logofatu et al. (2015) who discussed new educational challenges by conducting trials using Google Classroom at the University of Bucharest. In their research, Logofatu et al. (2015) have an interest in conveying a new way of conducting campus activities using Google Classroom. They explained how to use Google Classroom itself based on the experience of professor Bogdan Logofatu in teaching six master's program classes and one undergraduate class. Logofatu et al. (2015) conducted research at the University of Bucharest in 2015 while in this study the authors conducted research on Accounting students at the Faculty of Social Sciences at Pembangunan Panca Budi University in 2022.

LITERATURE REVIEW

Online Learning

In general, online learning is learning that is carried out electronically using computer-based media, as well as a network. Online learning is also known as electronic learning, e-learning, online learning, internet-enabled learning, virtual learning, or web-based learning (Maulidi, 2015). Based on articles obtained from The University of Edinburgh (2017), online learning is a way of doing learning without having to come directly to campus (class). Meanwhile, according to Hartley (2001), e-learning is a type of teaching and learning that allows teaching materials to be conveyed to students using Internet media, intranets or other computer network media.

From some of the definitions above, it can be concluded that online learning or better known as e-learning is a method used in carrying out the teaching and learning process with electronic supporting media, especially the internet.

Several universities have used online learning to support teaching and learning activities so that students do not need to come to campus because all activities are carried out through an online system. Bina Nusantara University (Binus) implements online learning to encourage students to be self-learning and to design online learning in such a way that students still feel they are learning in class (Rochman, 2014). Binus has developed its own platform to be used as an online learning medium, namely Binusmaya. In this Binusmaya, there are several facilities such as a course room which is used for questions related to courses, a team room as a means for discussing group assignments,

Apart from Binus, there is Trisakti University which has also developed its own platform for online learning, namely Trisakti Electronic Learning (TELL). Based on the official website of Trisakti Electronic Learning (2017), TELL provides teaching and learning facilities virtually by utilizing internet devices by combining 70 percent online learning and 30 percent face to face. With such a learning composition, it is very possible for students who have limited time or are geographically far from the Trisakti University campus location to still be able to attend lectures.

For overseas universities such as the University of Birmingham UK, University of Georgia USA, University of Pretoria in South Africa, Massey University of New Zealand and many more, use the WebCT platform to support online teaching and learning activities. WebCT or Web Course Tool itself is a learning tool used by universities in the world to carry out the learning process online. Based on the results of research conducted by Al-Khanjari et al. (2005), regarding E-Learning under WebCT there are several facilities available in WebCT, namely email tools that can be used by students to communicate with teachers



and other students. Discussion tool that can be used by teachers to manage discussion forums with various topics. Presentation tool that can be used by groups that will be presenting to share presentation materials. A glossary that can be used as a reference tool made by teachers to make it easier for students to find definitions related to the subject in question and a course calendar, which is a form of communication tool used by teachers to make schedules related to teaching and learning activities.

Based on research conducted by Sholahuddin (2004), the application of e-learning using WebCT is very helpful, both in providing material and assessment (assessment) and in using communication facilities very easily.

Google Classroom

Google Classroom or Google's classroom is a blended learning platform for the scope of education that can make it easier for teachers to create, share and classify each paperless assignment. The software has been introduced as a feature of Google Apps for Education which was released on August 12, 2014.

According to the official website from Google, the Google Classroom application is a free productivity tool including email, documents and storage. Classroom is designed to make it easier for teachers (teaching) to save time, manage classes and improve communication with their students. With Google Classroom, it can make it easier for students and teachers to connect with each other inside and outside of school.

Rosemarie DeLoro, a teacher from New York, stated that for 60 years she has never taught using a computer. However, since having a Chromebook and Google Classroom in it, he can easily give digital homework to his students and provide feedback in real time, anytime and anywhere (Biantoro, 2014).

Google Classroom designed for four users i.e. teacher, student, guardian and administrator. Teachers can use it to create and manage classes, assignments, grades and provide real-time input. Students can monitor class materials and assignments, share materials and interact in class streams or via email, send assignments and get real-time feedback and grades. For guardians, it can be used to get email summaries regarding student assignments. This summary includes information about missed assignments, upcoming assignments, and class activities. However, guardians cannot login to the class directly. Guardians receive email summaries through other accounts. For administrators to be able to create, view or delete classes in their domain,

Based on the official website from Google, Google Classroom provides several benefits such as: 1) Classes can be prepared easily; teachers can set up classes and invite students and teaching assistants. Then within the class stream, they can share information such as assignments, announcements and questions; 2) Save time and paper; teachers can create classes, assign assignments, communicate and manage, all in one place; 3) Better management; students can view assignments on the assignments page, in the class stream or on the class calendar. All material is automatically stored in the Google Drive folder; 4) Improving communication and input; Teachers can create assignments, send announcements and start class discussions right away. Students can share materials with each other and interact in the class flow via email. Teachers can also quickly see who has and hasn't completed an assignment, and immediately provide real-time grades and feedback; 5) Can be used with the application you are using; the class works with Google Docs, Calendar, Gmail, Drive and Forms; 6) Safe and affordable; classes are provided free of charge. Classes contain no advertisements and never use student content or data for advertising purposes. classes are provided free of charge. Classes contain no advertisements and never use student content or data for advertising purposes. classes are provided free of charge. Classes contain no advertisements and never use student content or data for advertising purposes.

Google Classroom can be accessed in 2 ways, namely through the website and application. The website can be accessed using any browser such as Chrome, FireFox, Internet Explorer or Opera. Meanwhile, the application can be downloaded for free via the Playstore for Android and the App Store for iOS.

English learning

The Accounting study program is one of the study programs in the Faculty of Social Sciences, Panca Budi Development University. In this study program, students are required to complete 144 semester credit units (SKS) before being declared passed and receiving a bachelor's degree. The 144 credits are divided into several sections, namely 16 credits for personality development courses (MPK), 29 credits for science and skills courses (MKK), 12 credits for elective science and skills courses (MKKp), 66 credits for expertise courses. work (MKB), 11 credits for work behavior courses (MPB) and 10 credits for social life courses (MBB).

Learning is a process of interaction between students and lecturers with learning resources (teaching materials) in a learning environment. In carrying out the process of learning English, one lecturer with



another lecturer has a different way of teaching. For courses that have a lot of calculations such as Introductory Accounting, Intermediate Financial Accounting, Advanced Financial Accounting, Accounting for Business Combinations, Cost Accounting, Management Accounting, Financial Management, Taxation and Inferential Statistics requires students to practice more questions. For certain lecturers, it is enough to explain in class and immediately be given assignments to be collected at the end of class. For other lecturers, after being explained and given exercises in class,

For subjects that have little calculations such as Accounting Information Systems, Management Information Systems, Management Control Systems, Entrepreneurship, Introduction to Business and Management, Accounting Theory, Auditing, Business Law, Forensic Auditing, Government Accounting and Public Sector Accounting students will usually be divided into several groups that will be scheduled to make presentations at each meeting. So here it encourages students to study in advance about the material that will be discussed before being explained by the lecturer in class.

Of the several lecturers who teach in the Accounting study program, some use Google Classroom to support their learning process in one semester. With Google Classroom, lecturers can send a syllabus containing learning activity plans for the next semester, can send material that will be received by all students, can give assignments to students with a certain time limit, distribute corrected assignments, hold quizzes, give sudden announcements and so on

METHOD

Population is a group of interesting people, events or things where the researcher wants to form an opinion based on sample statistics (Sekaran and Bougie, 2017). The population in this study were S1 students of the Accounting study program, Faculty of Social Sciences, Pembangunan Panca Budi University. Researchers conducted research on UNPAB Accounting students to find out how the role of Google Classroom as a supporting medium for learning English.

The sample collection technique in this study was purposive sampling or purposive sampling. According to Saunders (2012), purposive sampling is a technique that uses certain criteria to obtain research results that are in accordance with what the researcher wants. The criteria in this study are:

1. Accounting students with active status, namely class 2019, 2020, 2021 and 2022.
2. Accounting students who use Google Classroom where they take English courses during semesters 1 and 2.

Davis (1986) argues that acceptance of convenience is related to a person's belief that using a certain system will make that person effortless (free from extra effort). Perceived convenience in this case describes Google Classroom which can make it easier for students to do a number of things related to learning English. Student acceptance of the convenience of Google Classroom is measured by 6 questions based on the theory developed by Davis (1986) with 6 Likert scales.

Venkatesh et al. (2003) said that performance expectancy is related to the benefits or conveniences obtained in working, by using a particular system. Performance in this case illustrates the advantages gained from Google Classroom in carrying out the English learning process. Google Classroom performance is measured with 3 questions based on the theory developed by Venkatesh et al. (2003) which consists of 6 Likert scales.

Expectations in this case are related to the desired expectations with the use of Google Classroom in the English learning process. Google Classroom expectations are measured with 3 questions based on the theory developed by Venkatesh et al. (2003) which consists of 6 Likert scales.

Venkatesh et al. (2003) suggest that social influence relates to a situation where an individual considers it important for others to accept that the person must use the new system. In this case, social influences come from lecturers, teaching assistants, friends and the campus environment which influence students to use Google Classroom in learning English. Social influence on the use of Google Classroom is measured by 4 questions, based on the theory developed by Venkatesh et al. (2003) which consists of 6 Likert scales.

RESULTS AND DISCUSSION

Result

The data collection method in this study used a questionnaire. A questionnaire (questionnaire) is a list of written questions that have been formulated previously where respondents will record their answers, usually in clearly defined alternatives (Sekaran and Bougie, 2017). Collecting data with the questionnaire is a way of obtaining data directly (primary data). According to Sekaran and Bougie (2017), primary data is



information obtained directly (from the first hand) by researchers related to the variable of interest for a particular purpose of the study. In this study, researchers distributed questionnaires in two ways, namely directly to respondents and electronically in the form of a Google Form.

The scale used in this questionnaire is the Likert scale. According to Sekaran and Bougie (2017), the Likert scale is a scale designed to examine how strongly the subject agrees with a statement. The Likert scale score range starts from one to six, namely:

1. Strongly Disagree (STS)
2. Disagree (TS)
3. Somewhat Disagree (ATS)
4. Somewhat Agree (US)
5. Agree (S)
6. Strongly Agree (SS)

Validity test

Validity test was conducted to test the accuracy of the questions used in the questionnaire, in measuring variables. The questionnaire is said to be valid if it is able to reveal the value of the variable under study.

Reliability Test

The reliability test was carried out to measure a questionnaire which is an indicator of the variable. Questions are said to be reliable or reliable when the answers to these questions are consistent or stable over time. SPSS makes it easier to carry out the test by comparing the Cronbach Alpha value with the significance level used in the study. If the Cronbach Alpha value is greater than the significance level used, then the question is considered reliable.

Classic assumption test

The classic assumption test in this study consists of a normality test, multicollinearity test and heteroscedasticity test.

a. Normality test

According to Ghozali (2006), the normality test is used to see whether in the regression model the unemployment variable (residual) is normally distributed or not. In this study, the authors used SPSS to perform a normality test. The way to see whether the residuals are normally distributed or not is to look at the resulting skewness and kurtosis values, by comparing the statistical values and the standard deviation values. If the value is between -2 and 2, it can be said that the data is normal.

b. Multicollinearity Test

According to Ghozali (2006) the multicollinearity test was used to test whether the regression model found a correlation between the independent (independent) variables. In this study, the authors used SPSS to perform multicollinearity tests. This can be done by looking at the VIF value or the resulting Tolerance value. If the VIF value is less than 10 then there is no multicollinearity problem. If using a tolerance value, then see whether the tolerance value is above or below 0.01. If the tolerance value is above 0.01, then there is no multicollinearity problem.

c. Heteroscedasticity Test

According to Ghozali (2006) the heteroscedasticity test is used to see whether in the regression model there is an inequality of variance and residuals from one observation to another observation remain. In this study, the authors used SPSS with a scatterplot graph to detect the presence or absence of heteroscedasticity. If the results show a certain pattern such as dots forming regular patterns such as wavy, then it can be said that there is heteroscedasticity. However, if the resulting pattern is not clear, such as spreading above and below the number 0 on the Y axis, then heteroscedasticity does not occur.

Multiple Linear Regression Analysis

This analysis is used to find out how student acceptance of the convenience of Google Classroom, Google Classroom performance, students' expectations of using Google Classroom and the social influence of using Google Classroom on Accounting learning. The regression model used is as follows:

$$PBI = \alpha + \beta_1KGC + \beta_2PGC + \beta_3HGC + \beta_4PSGC + e$$



where :

PBI	: English learning
α	: Constant
$\beta_1, \beta_2, \beta_3, \beta_4$: Regression coefficient
KGC	: Student acceptance of the convenience of Google Classroom
PGC	: Google Classroom performance
HGC	: Expectations on the use of Google Classroom
PSGC	: Social Influence on the use of Google Classroom
e	: error

Hypothesis test

Testing the hypothesis in this study using multiple regression analysis with the t test, using the SPSS program. The t test is basically used to show how far the influence of the independent variables individually explains the variation in the dependent variable. To see the effect between variables, researchers compared the t-statistic values from calculations using SPSS with t-table values. If the value of the resulting t-statistic is greater than the value of the t-table, then H₀ is rejected and H_a is accepted. However, if the value of the t-statistic is smaller than the value of the t-table, then H₀ is accepted and H_a is rejected.

REFERENCES

- Al-Khanjari, ZA, NS Kutti, and HA Ramadhan. 2005. "E-Learning under WebCT." *Journal of Computer Science* 1 (4):488–94. <https://doi.org/10.3844/jcssp.2005.488.494>.
- Aparicio, Manuela, Fernando Bacao, and Tiago Oliveira. 2017. "Grit in the Path to E-Learning Success." *Computers in Human Behavior* 66. Elsevier Ltd:388–99. <https://doi.org/10.1016/j.chb.2016.10.009>.
- Bawack, Ransome Epie, and Jean Robert Kala Kamdjoug. 2017. "Adequacy of Utaut in Clinician Adoption of Health Information Systems in Developing Countries: The Case of Cameroon." *International Journal of Medical Informatics* 109 (October 2017). Elsevier:15–22. <https://doi.org/10.1016/j.ijmedinf.2017.10.016>.
- Cech, Pavel, Vladimir Bures, and Vita Nejdleho. 2004. "E-Learning Implementation at University," no. Rosenberg 2003.
- Davis, Fred D, and Richard Bagozzi. 1989. "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models." *Management Science* 35 (8):982–1003. <http://www.jstor.org/stable/10.2307/2632151>.
- Filippova, Tatiana. 2015. "Priority Fields of E-Learning Development in Russia." *Procedia - Social and Behavioral Sciences* 206 (November). Elsevier BV:348–53. <https://doi.org/10.1016/j.sbspro.2015.10.063>.
- Ghalandari, Kamal. 2012. "The Effect of Performance Expectancy, Effort Expectancy, Social Influence and Facilitating Conditions on Acceptance of E-Banking Services in Iran: The Moderating Role of Age and Gender." *Middle-East Journal of Scientific Research* 12(6):801–7. <https://doi.org/10.5829/idosi.mejsr.2012.12.6.2536>.
- Ghozali, Imam. 2006. *Multivariate Applications with the SPSS Program*. Semarang: Diponegoro University Publishing Agency.
- Hsu, Meng Hsiang, and Chao Min Chiu. 2004. "Internet Self-Efficacy and Electronic Service Acceptance." *Decision Support Systems* 38 (3):369–81. <https://doi.org/10.1016/j.dss.2003.08.001>.
- izenstark, Amanda, and Katie L. Leahy. 2015. "Google Classroom for Librarians: Features and Opportunities." *Library Hi Tech News* 32 (9):1–3. <https://doi.org/10.1108/LHTN-05-2015-0039>.
- Laudon, Kenneth C, and Jane P Laudon. 2014. *Management Information Systems: Managing Digital Firms*. 13thed. New Jersey: Pearson Education Inc.



- Lee, Younghwa, Jintae Lee, and Yujong Hwang. 2015. "Relating Motivation to Information and Communication Technology Acceptance: Self-Determination Theory Perspective." *Computers in Human Behavior* 51 (PA). Elsevier Ltd:418–28. <https://doi.org/10.1016/j.chb.2015.05.021>.
- Logsofatu, Bogdan, Andreea Visan, and Camelia Ungureanu. 2015. "Google Classroom - The New Educational Challenge. Pilot Test within the Department for Distance Learning." *The Role of the Internet in Education – Change and Transformation*, 199–205. <https://doi.org/10.12753/2066-026X-13-131>.
- Madigan, Ruth, Tyron Louw, Marc Wilbrink, Anna Schieben, and Natasha Merat. 2017. "What Influences the Decision to Use Automated Public Transport? Using UTAUT to Understand Public Acceptance of Automated Road Transport Systems." *Transportation Research Part F: Traffic Psychology and Behavior* 50. Elsevier Ltd:55–64. <https://doi.org/10.1016/j.trf.2017.07.007>.
- Marfuatun, E Widjajanti, and Suwardi. 2013. "Development of Online Cooperative Learning Methods in Chemistry Physics II Lectures." *Journal of Mathematics and Science Education*, 125–33.
- Maulidi, Ahmad. 2015. "Definition of Online Learning." Knowledge Channel. 2015. <https://www.kanal.web.id/2015/09/pengertian-belajar-online.html>.
- Oliveira, Tiago, Miguel Faria, Manoj Abraham Thomas, and Aleš Popovič. 2014. "Extending the Understanding of Mobile Banking Adoption: When UTAUT Meets TTF and ITM." *International Journal of Information Management* 34 (5):689–703. <https://doi.org/10.1016/j.ijinfomgt.2014.06.004>.
- Rochman, Fathur. 2014. "Binus Online Learning, College Without Having to Go to Campus." Kompas.com. 2014. <http://edukasi.kompas.com/read/2014/10/02/14094781/Binus.Online.Learning.College.Without.Must.go.to.Campus>.
- Saunders, Mark, Philip Lewis, and Adrian Thornhill. 2012. *Research Methods For Business Students*. Sixth. England: Pearson Education Limited.
- Sekaran, Uma, and Roger Bougie. 2017. *Research Methods for Business: Skills Development Approach, Book I*. 6th ed. Jakarta: Salemba Empat.
- Sholahuddin, Asep. 2004. "Implementation of E-Learning in a Higher Education Using WebCT Software." Jakarta: Proceedings, Computers and Intelligence Systems.
- "About Tell - Trisakti E-Learning." 2017. Trisakti Electronic Learning. 2017. http://www.tell.trisakti.ac.id/about_tell.php.
- Trybou, Jeroen. 2017. "Performance Expectancy, Effort Expectancy and Social Influence as Factors Predicting The Acceptance of (Non-) Fluoroscopy- Guided Positioning for Radiographs, and the Relationship with Leadership," 2016–17.
- "What Is Online Learning?" 2017. The University of Edinburgh. 2017. <https://www.ed.ac.uk/studying/postgraduate/degree-guide/online-learning/about>.