STUDENTS' PERCEPTIONS ON THE USE OF GOOGLE CLASSROOM TO SUPPORT BLENDED LEARNING FOR THE *PENGANTAR LINGUISTIK UMUM* COURSE

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ABSTRACT

Implementing blended learning strategy in higher education requires a learning management system (LMS) that is stable, well-proven, and accessible by both teachers and students alike. Google Classroom is an LMS that meets the aforementioned criteria and it has a steady growing acceptance because of its cross-platform presence, stability, and ease-of-use. Though Classroom has gained many users in K-12 environment, it has not gained the same progress in higher education. To investigate whether Classroom can bring positive impact in a higher education course, a research was conducted by utilizing Classroom as an LMS to support blended learning strategy in a Pengantar Linguistik Umum class for a semester. Research participants' were university students who enrolled in PLU class. Then, the course was conducted by combining face-to-face meeting and online learning facilitated by Google Classroom. Class teacher surveyed students' knowledge and perceptions about blended learning at the beginning of the course and at the end of semester to investigate their perceptions of using LMS in blended learning environment. The Classroom was used to share video podcasts, online quizzes, and assignments. This research showed that Classroom was a satisfying LMS for blended learning in PLU course because of its features, user-friendliness, and appropriateness in higher education program.

Keywords: LMS, blended learning, higher education, ICT in education, perceptions

INTRODUCTION

To acquire maximal knowledge and develop desired skills, effective teachers and learners will use a variety of methods, approaches, and strategies. This practice is called blended learning and the fast growth of internet and mobile technology makes blended learning a necessity to enriched traditional classroom learning with e-learning activities that students can do independently (Marsh, 2012). Internet, at this point, eases the practice of blended learning because it gives various blended learning platforms for teachers and students to choose and utilize. Blogs, wikis, social networks, Learning Management Systems (LMS) or Course Management Systems (CMS) are the common platforms for blended learning

because their online nature makes them accessible by anyone from anywhere at any time.

In the beginning, blogs, wikis, and social networks are the popular platforms for blended learning because they are free and easy to use. Those platforms are also good for small or individualized classes. With blogs, wikis, and socmeds, teachers and students can exchange ideas through content creation, such as, online articles, videos or audio podcasts, and give or collect assignments. Although blogs, wikis, and socmeds can facilitate online discussion, it lacks support for administering, tracking, and documenting curricula. For bigger classes and more demanding needs, teachers and students can use LMS or CMS. LMS is a digital teaching and learning platform for the administration, documentation, tracking, reporting, and delivery of curricula (Watson & Watson, 2007). Just like blogs or social medias, LMS facilitates teachers and students to exchange office documents, distribute audio/video podcast, conduct an online discussion/consultation, and give online assessment. However, LMS does not support content creation because it is only a framework that handles all aspect of the learning process. Parallel to LMS, CMS is a software that manages students' enrollment, track students' performance, supports content creation, and distributes course content (Keeler, 2017). Since LMS and CMS have similar features, LMS is often confused to CMS, which is often used in education setting. Examples of LMS or CMS are Schoology, Blackboard, Canvas, Edmodo, and Google Classroom.

Google Classroom is another blended learning platform that has appeared in 2014 (Luckerson, 2015) and it came into prominence in 2017 ever since Google change its policy from institutional use into individual use (Heijink, 2017). The recent policy enables anybody with a Google account to create a virtual classroom using Classroom for educational purpose. Since its launch on 2014, Classroom has gained a wide acceptance in K-12 education because of its free, ease-of-use, and unlimited capacity. Besides K-12 setting, Classroom has also gained users from higher education institutions, though they are not as many as K-12 institutions (Singer, 2017). According to Google's data, there are 70m users of Google Classroom around the world (Techcrunch, 2017). Unlike LMS or CMS, Google

Classroom is a Google Drive management system that support a blended learning environment to assign and to collect digital work (Keeler, 2015) by integrating other Google products; Google Docs, Google Drive, YouTube, Google Forms, Google Calendar; in one place. This integration allows class teacher and students to send and share office docs or multimedia files, to do collaborative project, to have an online discussion, and to have online assessment.

This paper aimed at investigating the effectiveness of Google Classroom in supporting learning process in a higher education setting by using the Classroom as an LMS for blended learning approach in a linguistic course at a higher education institution.

Literature Review

Blended learning is a simple but powerful way to extend classroom experience in space and time, combining a broad variety of technology/media with conventional, face-to-face classroom activities (Bersin, 2004; Picciano, 2007). In its nature, blended learning does not have to be based on computer technology because it can also be based on video-watching, kinesthetic, or oral-auditory activities. The goals of blended learning is to enhance knowledge and performance, to increase students' involvement, to encourage collaborative learning, to create a less stressful learning environment, to build learners' autonomy, and to provide personalized learning (Marsh, 2012). From that proposition, teachers use any tool that they find practical and effective and blend it in the learning process. As of today's setting, the best practice of blended learning is achieved by combining traditional classroom meeting (face-to-face session between students and their teachers) and e-learning (learning content and instructions are delivered through Internet) (Brodersen & Mellluzo, n.d.).

In the last two decades, blended learning has become very popular among educators because its environment provides students with choices that lead to improved learning (Jeffrey, Milne, Suddaby, & Higgins, 2014). Through internet, teachers can enrich students with lesson materials that they can access and study on their own using their own computers or gadgets. When students encounter problems

in their study, they can consult their teachers without having to make appointment to see teachers at office or wait for the next class session. Furthermore, assessment can be done anytime and in various forms, such as, individual quiz, collaborative paper, multimedia projects. Teachers can give feedbacks to students conveniently using online channels; LMS or CMS. This condition accommodates students who have different learning preferences and it encourages them to learn in an interactive and collaborative environment, at their own pace and in their own time (Graham, Saltzberg & Polyson in Poon, 2013). Because of that, blended learning is commonly found in higher education or adult education programs (Bowyer & Chambers, 2017)

Though conceptually promising and potential, implementing blended learning in real classroom is demanding because a number of key points should be completed to provide students with meaningful learning environment (Thorne, 2003). Issues that deserve attention in blended learning are LMS that support blended learning, instructional design, teacher's activity, concrete outcomes, learners' satisfaction, peer collaboration, course design, and economy (Mozelius & Hettiarachchi, 2017). When those key points can be handled by teachers, the practice of blended learning will yield positive results (Djiwandono, 2013; Rohani, 2016; Purnawarman, Susilawati & Sundayana, 2016; Kintu, Chang & Kagambe, 2017).

Djiwandono (2013) found that blended learning approach in his classroom improved students' vocabulary mastery and the students found online learning favorable in vocabulary classroom. In a research about using Edmodo as a medium of online learning in a higher education institution, Rohani (2016) concluded that Edmodo, an LMS, had features that supported a blended learning class because Edmodo facilitated communication between the class teacher and her students via online mode and it facilitated online assignment of various kinds. Her findings showed that students had positive perceptions towards Edmodo as an LMS that complement face-to-face meeting in a blended learning classroom. Another finding on the use of Edmodo as a platform to teach writing skill in a blended learning setting (Purnawarman, Susilawati & Sundayana) was that Edomodo supported students' cognitive process during their writing exercises and assignments. The

Note menu in Edmodo allowed students to work collaboratively in groups, made them aware about the quality of their work, and made them responsible to do their part in learning process. In the study of blended learning effectiveness in an Ugandan higher education setting, Kintu et al (2017) reported that blended learning approach helped learners to develop self-regulated learning and they had positive perceptions about blended learning. Learners interactions in blended learning improved too because students could work collaboratively online.

As a blended learning platform, Google Classroom is designed by Google and it was launched in 2014 (Siu, 2016). It is a part of G Suite for Education (GSE) and its use was restricted to institutions which subscribe to GSE. By 2017, Google allows any personal Google user to create and teach a class using Classroom. Classroom can be accessed at www.google.com or from its mobile app, available on Appstore and Google Play. This LMS has potential features to help teachers and students in digital collaboration and those features are cross platform presence (mobile and desktop), user friendliness, multimedia support, content sharing, effective feedbacks, paperless form, and integration with other Google products (Keeler, 2014; Pappas, 2015; Luckerson, 2015; Google, 2017).

Even though Classroom has been present for almost four years, a few research have been done to evaluate its effectiveness in supporting blended learning. One study by Iftakhar (2016) showed that teachers and students found Classroom very effective in supporting blended learning and collaborative work. With Classroom, teacher could share course syllabus and learning materials to their students and students could accessed those anytime and anywhere. Another study by Pradana and Harimurti (2017) also found Classroom beneficial in improving the result of students' learning process. Furthermore, both studies (2016 and 2017) stated that students perceived Classroom as a positive IT tool in supporting teaching and learning process in both inside and outside classroom. In addition, Clark and Avrith (2017) recommended Classroom because it blends Google tools in one place that anyone with a Google account can use. Teachers are able to distribute lesson materials or assignments directly to each student or the whole class. On the other side, students can submit assignments or post questions directly to class teacher and

get feedback without the necessity of meeting face-to-face. Grading students' works and giving feedbacks are easy because teachers can do those works via internet.

Students' Engagement in ICT

Student engagement has always increased when ICT is used in combination with traditional face-to-face instruction. Robinson and Hullinger found that asynchronous instructional technology gives plenty of time for leaners to develop critical and reflective thinking which stimulates higher order of thinking such as analysis, synthesis, judgment, and application of knowledge (Chen, Lamber & Guidry, 2010). That finding is also supported by Duderstadt, Atkins, and Houweling (Chen et al) who also found that online learning promote higher orders skill among students in an online learning class. Thurmond and Warbach stated that an increase of collaborative work is found among students who took online courses (ibid). In addition, Delialioglu (2012) reported that blended learning helped students to be more active and spent more time on academic activities that are put in blended learning environment.

This research was done to investigate about students' perceptions of using Google Classroom as an LMS to support a course in higher education institution. The questions that would be answered by this research were:

1. What are students' perceptions of Google Classroom after using it for a semester?
2. What features in Google Classroom that students' find beneficial?
3. Is Google Classroom a recommended LMS for higher education courses?

METHODS

Data for the research was collected from a class that consisted of 30 students who took PLU (*Pengantar Linguistik Umum*), a mandatory course for all first-year students. The class was taken as the group on which the experiment was performed.

Since the research used pre and post experiment design, the data for this research is collected by means of online questionnaires that were given in the first

session and in the last session of the semester. Online survey was chosen as the medium of questionnaires because of its ease in making, distribution, filling, and calculating results. Knowing that the research subjects may not have the same English competency, the questionnaire was created in Indonesian to ease them in filling it out.

The research subjects were high-school graduates that belonged to 17-20 age group and they were students of PLU. In this course, students learn basic concepts of English linguistics, from Phonology to Syntax and the course uses just one textbook. Though students have learned English since Elementary school, they have never studied its linguistic aspect. Thus, PLU was a novel subject for these students.

Treatments

PLU virtual class in Classroom was created prior to the start of semester. The class was filled by lesson materials; videos, video podcasts; that were related to PLU course and they were accessible by any student who had joined the class. Lesson materials prepared for Classroom were mostly self-made video podcast, videos from YouTube, and the rest of the materials took form in downloadable PDF files. The materials were arranged to appear sequentially following the order of class discussions that had been planned in syllabus.

At the first meeting, the students were told that they were going to have blended learning approach in PLU class whereby students would experience learning in face-to-face mode and in virtual classroom, using Google Classroom. Students were instructed to download Classroom app from Appstore or Google Play, depending on their smartphone platforms, and asked to join PLU class by typing a class code. Within less than 24 hours, the majority of students have joined PLU virtual class and the rest joined a week later.

The first thing that students did in Classroom was filling an online questionnaire that was designed to identify students' knowledge and perceptions of blended learning. The questions were self-made and not a copy of other ready-to-

use questionnaires. There were ten questions, in Indonesian language, and the questionnaire was in the form of multiple choice.

Table 1. Summary of pre-semester survey

	Ya	Tidak		
Apakah Anda pernah mendengar blended learning?	60%	40%		

	Ya	Tidak		
Pernahkan Anda belajar dengan metode blended learning	73%	26.7%		

	Ya	Tidak		
Apakah Anda tertarik mencoba metode belajar blended learning	93.3%	6.7%		

	Schoology	Edmodo	Google Classroom	Facebook Group	Blogger
Apakah Anda pernah menggunakan Learning Management System (LMS)? LMS manakah yang pernah Anda pakai	55.6%	22.2%	20%	6.7%	13.3%

Throughout the semester, students learned PLU in a combination of face-to-face session and blended learning using Classroom. The routine were students attended lectures according to class schedule learnt in traditional way in which they listened to lectures, had a discussion in classroom, and received assignments. After class session, students received extra lesson materials regularly in the form of video podcasts, which was a slideshow of lectures that they had received in the real classroom. On three occasions, students did not have face-to-face session and they were assigned to watch video podcasts, made by the lecturer. Besides video podcasts, students got extra materials of videos, from YouTube, which gave explanation of chapters that they had covered in their textbook and PDF files about the sounds in English language.

Evaluation on students' progress was done by two means, traditional and online assignments. With traditional assignment, students were given a task to do the exercise provided in each unit of the textbook. Students were instructed to complete the exercise by typing their answers in a Word doc and submit it online

to Classroom. In online assessment, students were invited to watch a video, posted an opinion in Classroom, and asked to answer two questions posted by the lecturer. Students gave their answers in the comment section of the video post. In addition, students received two regular assessments that are given as Mid-semester and Final-semester examinations, both were physically conducted in a classroom. To help students keeping track of their assignments throughout the semester, a document was created and it contained students' scores of every assignment that they had done.

At the end of semester, students were asked to fill an online questionnaire that was designed to investigate their perceptions on Google Classroom after using it for a semester at PLU. The questionnaires consisted of questions about students experience of using Classroom for a semester.

RESULT AND DISCUSSION

At the end of semester, another survey was done to investigate students' opinion and perception about Google Classroom after using it for a semester in PLU class. The survey was an online and it was distributed by posting it in Classroom, enabling PLU's students to do it with their own gadgets. To help students in doing the survey, the questions were presented in Indonesian to help their comprehension.

Unlike the pre-semester survey, this time only 2/3 of the class did it. It was probably caused by students' shifted attention to final exam. Though the survey was presented online and was accessible for two weeks after the exam period, only 18 students who filled the online survey. Just like the first survey, all questions were presented in Indonesian to tackle the problem of not comprehending the questions if the had been presented in English. Usually, first semester students have not developed good English competency. The survey consisted of three parts; The first part was about students gender and age group. The second part was composed of eleven questions about students opinion of PLU course and the implementation of Classroom as LMS in the course. The final part was an open ended question related to their personal opinion about the use of Classroom as LMS to implement blended learning approach in PLU course.

Question 1: What do you think about PLU course?

55.6% of the students thought it was a difficult course for them but 39% thought the other wise, choosing easy.

Question 2: Do you like PLU?

67% of the class population apparently liked the course and this contrasted the result of the first question. Though half of the class thought PLU was difficult, some of them probably had positive opinion about the content or the way the course was delivered.

Question 3: What is your opinion about the implementation of blended learning in PLU course?

The majority of the class (66.7%) had a positive opinion about blended learning in PLU course. They rated the approach as very good and 16.7% deemed it as good. Only 11% of the class showed moderate opinion about blended learning approach.

Question 4: Does Google Classroom supported you in the learning process in PLU course?

The responses were very positive because 50% rated Classroom as strongly supporting and 44.4% rated it as supporting. This showed that Classroom was an LMS that supported students in blended learning approach.

Question 5: What content of Classroom that you found very supporting in the learning process?

The survey provided students with a list of contents provided by lecturer in Classroom and they were video Podcast, online assignment, online discussion, lecturer feedback, and nothing. Students could choose more than one option as their responses. Of all the choices, half of the class (50%) chose online assignment as the best part of Classroom. Video podcasts were the second popular thing among the students (44.4%). The third useful content (33.3%) in Classroom was lecturer's feedbacks for students' assignments.

Question 6: What is your opinion on using Classroom? Is it easy or difficult to use?

For this question, the result was unanimous in which 100% of the class population had the opinion that Classroom was easy to use.

Question 7: How long did it take you to understand how to use Classroom?

Consistent with the previous question, the result showed that 55.6% of the class was able to use the LMS in just one day and another 22.2% needed a week to comprehend how to use it. The rest of the class (22.2%) spent a semester in trying to understand how Classroom worked. Though the students did not receive special training in using LMS, they were able to grasp how it functions with little guidance from lecturer.

Question 8: Did the lecturer used Classroom effectively and efficiently?

94% of the students agreed that the lecturer used Classroom effectively and efficiently.

Question 9: Is Classroom appropriate for PLU course in the next semester?

All students thought that Classroom is the right LMS for PLU course in the next semester.

Question 10: Do you think Classroom can be implemented for other courses in STBA LIA?

15 students thought Classroom is a good LMS for carrying blended learning for other courses in STBA LIA's curriculum. Three students did not share the same opinion because they chose "No".

Question 11: Is there a better LMS than Google Classroom?

In this item, students were presented with four options of common blended learning medium in the market which are Edmodo, Schoology, Facebook, and Blogger. The last option was "I don't know". From 18 respondents, 77.8% (14) chose Edmodo as another alternative to Classroom and 1 respondent chose

Facebook as an alternate blended learning medium. The other three students had no idea of an alternative medium.

The 14 students who chose Edmodo as an alternate LMS to Classroom might have had experience using it in their previous education. They must have had experience in using Edmodo as blended learning medium which they probably had in high school.

Question 12: Please write your personal opinion about the use of Classroom as LMS in implementing blended learning approach in PLU course. Your opinion can be your impression or suggestion for a better use of Classroom in the future.

In this last item, students' opinions on Classroom were generally positive. They felt Classroom worked well as an LMS that delivered lesson materials to students without the constraints of time, space, and gadget platform. Classroom also allowed students to interact with each other for a discussion among themselves or with the lecturer. With video podcasts that the lecturer created, students found them satisfying but they prefer to listen to live lecture than watching the video version.

Table 2. Most frequent comments about Classroom as LMS in PLU course

No.	Comments
1.	*Menurut saya, penggunaan google classroom sangat bagus karena apabila dosen ingin menyampaikan materi yang akan di bahas minggu berikutn nya dapat menggunakan media google classroom ini dan mahasiswa jadi mengetahu apa yang akan di bahas di pertemu berikut nya.*
2.	*Sangat mudah dan mengerjakan tugas di google classroom lebih praktis dan kita bisa mengerti soal 2 kesan saya pakai google classroom kita bisa tukar pikiran seksama antara dosen dan murid*
3.	*Video membantu, tetapi terkadang mahasiswa/i lebih suka mendengarkan penjelasan dari dosen langsung*

Discussions

This study claims that Classroom positively supports blended learning strategy in a high-ed course. Similar to studies by Iftakhar (2016) and Pradana and Harimurti (2017), Classroom supports blended learning approach in PLU class. Also, students found Classroom supported their learning process in and outside the

physical classroom. Since the LMS is cross-platform, as both web and mobile app, students did not have difficulty in accessing it from wherever they were. The sharing feature of Classroom allowed the students and their lecturer to exchange document in common digital formats (DOC, PDF, JPG) thus reducing the necessity to print documents and the risk of losing documents.

In terms of facilitating interactions, students were not very keen in using Classroom as a means to do that because they like instant messenger better than Classroom. Messenger apps like Whatsapp or LINE are convenient to use and they felt messenger app reduces the formality of Classroom. Students viewed Classroom more like as an app for educational purpose only, no for communication. As have been experienced by the lecturer, discussion between lecturer and students existed solely when they wanted to ask question or because the lecturer was going to score the discussion.

CONCLUSION

As a relatively new LMS in blended learning environment, Classroom has many features that are as good as other LMSs that have been around longer before it and more future researches are needed to explore other benefits and weakness in Classroom. Additionally, this study enriches previous studies about Google Classroom in education and helps us think about using LMS in higher education program and its effectiveness to assist teacher and students in the learning process using blended learning approach.

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