

STUDENTS' EVALUATION OF USING GOOGLE CLASSROOM IN PROJECT-BASED LEARNING IN FACULTY OF ENGLISH, HANOI NATIONAL UNIVERSITY OF EDUCATION

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Abstract: Traditional classroom has so far been a common place for learning almost all school subjects and courses of different fields. In language teaching and learning within the 21st century context, the use of Google Classroom is not new, so is the research on the benefits and barriers of this virtual academic place. Being used as a supportive device for teaching and learning in several subjects over the past semesters, "Google Classroom" has become a familiar term among English majors in the Faculty of English, Hanoi National University of Education. This proposed study will explore the applications of this virtual academic environment in project-based learning, focusing on investigating students' perspectives on its advantages and disadvantages, as well as their expectations and suggestions for an optimal use.

Keywords: 21st century, blended learning, Google Classroom, project-based learning.

1. INTRODUCION

Google Classroom has allowed Google users to create and teach a class since April, 2017. This application ties many other tools of Google together including Google Drive, Google Docs, Sheets and Slides, and Gmail to help educational institutions go to a paperless system. (Wikipedia, 2018).

Initially used by 60 major students in the Faculty of English, Hanoi National University of Education in project-based learning, this application has been considered for use in other subjects in the following academic years. Additionally, in learner-centred approach, learners' decisions about what they want and need to learn, how they should learn, and what they should learn through or with are of great importance (McGrath, 2013). Thus, it is vital for the researchers to find out the advantages and disadvantages of using this kind of application from learners' perspectives and to consider their thoughts to see how far it meets their needs and expectations. Then strengths can be increased, and drawbacks can be minimized so that Google classroom can be used more usefully and effectively in the following courses.

This study was carried out to have a better insight into the students' perspectives of using Google Classroom in project-based learning. The objectives are:

- To find out the advantages and disadvantages of using Google classroom in project-based learning.
- To find out what students expect for using Google classroom in project-based learning.

To achieve the above aims, the following research questions were addressed:

- (1) What are the advantages and disadvantages of using Google Classroom in project-based learning?
- (2) What are the students' expectations for using Google Classroom in project-based learning?

2. LITERATURE REVIEW

Over the past decade, blended learning, an education program that combines online digital media with traditional classroom methods, has become more popular and more widely used in many educational institutes, especially at university level. Thanks to this combination, blended learning can bring more positive impact on teaching and learning process and minimize the ineffective problems in language classrooms. (Pekanbaru, 2018). One of the applications that can create such virtual classes is Google Classroom.

Google Classroom has become popular in many countries throughout the world and essentially drawn researchers' attention. Various issues have been investigated, for example, functions of Google Classroom (Iftakhar, 2016), benefits and barriers of using Google Classroom in language learning (Ashari, 2016) and effectiveness of using Google Classroom in collecting students' assignments (Pekanbaru, 2018). However, it seems to have little research on advantages and disadvantages of using Google Classroom in project-based learning from the learners' perspectives to see how far it meets their needs and expectations. Consequently, this research aims to have a deeper investigation into this gap.

2.1. Blended learning and Google Classroom

2.1.1. Definition of blended learning

As defined in Online Cambridge Dictionary, blended learning is “a way of learning that combines traditional classroom lessons that use computer technology and may be given over the Internet”. Additionally, Reay (2001) and Ronney (2003) share the same point in defining the term blended learning when stating that it is considered a method of combining online instruction and face-to-face instruction.

In other words, blended learning combines both online and in-person learning experiences when teaching students. In a blended-learning course, for example, students might attend a class organized by a teacher in a traditional classroom setting, while also independently doing online assignments of the course outside the classroom.

2.1.2. Definition of Google Classroom

“Google Classroom is a blended learning platform which has been developed by Google Inc. that means to simplify creating, distributing and grading assignments in a paperless way” (Pekanbaru, 2018, p.144).

Google Classroom is defined as “one of the best platforms out there for enhancing teachers’ workflow” and “an ideal tool” with “a set of powerful features” to use with students. It helps teachers save time, organize classes and enhance communication with students. (Iftakar, 2016).

2.2. Project-based learning

2.2.1. Definition

Definitions of PBL have been proposed in a number of research papers. According to Blumendfeld et al. (1991), PBL is “a comprehensive perspective” which focuses on “engaging students in investigation” (p.371) and involving students in the learning process through solving problems, posing questions, making hypotheses and drawing conclusions.

2.2.2. Essential elements of project-based learning design

In the era of technological advancement and globalization, PBL seems to be a perfect key to meeting the challenges towards 21st-century citizens. That is to say, PBL is essential to help develop critical thinking, communication, collaboration, and creativity.

Larmer et al. (2015) confirmed ten elements that fulfill the perfection of PBL. Firstly, with “challenging problem or question”, PBL makes learning become a

meaningful process as students are not only learning but having a purpose to use their knowledge in addressing a problem or question. Also, PBL entails a “sustained inquiry” that requires a long process and therefore employs different sources of information and data collection instruments. Thirdly, PBL is an authentic learning process, with “real-world” context and task. In order to meet the challenge, students have to collect “real” data, experience real-world process and develop genuine products. As a result, students can have a say in a project, i.e. they play the vital role in deciding on the process, the product, the audience, and so on. They also learn from the whole process by “reflecting on what they’re learning, how they’re learning, and why they’re learning.” Another aspect of effective PBL is that constructive feedback from teachers and peers can help improve project processes and products through students’ reflection. Finally, a public product considerably helps make high-quality performance and preparation. It also furthers the chances to exchange whatever students have learnt through the process, as well as to connect with parents and members in the community (Larmer et al., 2015).

2.3. Criteria for evaluation of Google Classroom

Various researchers have suggested different ways to help evaluators become more systematic and objective in their method of evaluation by using a checklist. The checklist of six criteria suggested by ISO 9126 (International Standard Organization) (2001) is chosen in this study.

- **Functionality:** A set of attributes that bear on the existence of a set of function and their specified properties.
- **Efficiency:** A set of attributes that bear on the relationship between the level of performance of the software and amount of resources used.
- **Maintainability:** A set of attributes that bear on the effort needed to make specified modification.
- **Reliability:** A set of attributes that bear on the capability of software to maintain its level of performance under stated condition for a stated period of time.
- **Portability:** A set of attribute that bear on the ability of software to transfer from one environment to another.
- **Usability:** A set of attributes that bear on the effort needed for use and on the individual assessment of such use by a stated on implied set of users.

3. METHODS AND RESULTS

3.1. Research method, participants and data collection instruments

This paper employed a descriptive method intended to focus on the effectiveness and shortcomings of Google classroom in PBL instruction, as well as to investigate users' expectations and suggestions for better application in the future. In order to answer the two research questions, 60 students who are active users of Google classroom throughout a 15-week academic period were invited to participate in the process, together with the two teacher authors of this research. Data were collected in two main ways: (1) a survey questionnaire and (2) semi-structured interviews with six out of these 60 users on their evaluation of Google classroom. The data were then analyzed both qualitatively and quantitatively. The questionnaire was completed within approximately fifteen minutes, with 16 closed-ended items being categorized into one of the three areas: *Academic achievement and motivation, communication and interaction, and information access*. For further data related to participants' perspectives and personal feelings about the use of this application, five interview questions were posted among six randomly chosen respondents within 10 minutes.

3.2. Procedure, time frame of data collection and analysis

The data collection procedure was sequenced as follows. In the first place, the two authors reviewed students' interaction with classmates and instructor on the website, from which the data were analyzed quantitatively.

A well-structured survey questionnaire was simultaneously conducted among the 60 student participants to investigate their evaluation on its effectiveness. From here, the data were supposed to be quantitative, as were the ones collected from subsequent individual interviews with six randomly chosen respondents. The writers' observation and analysis took two days as planned, while the questionnaire was conducted with one successive week. One-to-one interviews were then held within two days. Altogether, the procedure of data collection was due for two weeks and followed by another two weeks of analyzing and discussing the findings.

3.3. Results

As stated earlier, the collected data were analyzed both qualitatively and quantitatively, and were aimed to address the two research questions.

3.3.1. Advantages and disadvantages of Google Classroom in Project-based learning

As shown in Table 1, in response to the first eight survey questions on academic achievement and motivation, all the students supported the idea that GC generated a realistically positive learning environment. Around three fourths agreed GC helped maintain their motivation and acquirement of PBL-related matters. A higher number of 50 students claimed that the employment of GC in PBL facilitated the learning content, improved the monotonous atmosphere of traditional classrooms while, at the same time, developing their self-study skills. In terms of the teachers, those respondents believed that GC also enabled their continuous evaluation of students' progress.

Table 1. Students' reflection on their academic achievement and motivation

Survey questions	Strongly agree	Agree	Can't decide	Disagree
1. I feel highly and constantly motivated with the use of Google classroom in PBL.		44	6	10
2. I feel that Google classroom increases the effectiveness of learning PBL.		37	23	
3. Google classroom helps enrich the learning content.	50	10		
4. Using Google classroom helps develop self-study skills among students.	50	10		
5. Google classroom helps teachers in evaluating the courses continuously.	46	14		
6. Google classroom helps develop important skills of the 21 st century.	24	22	14	
7. Google classroom can be very helpful in facilitating traditional classroom.	52	6		2
8. Google classroom generates a positive learning environment.	60			

Table 2. Students' reflection on their communication and interaction

Survey questions	Strongly agree	Agree	Can't decide	Disagree
9. GC maximizes the limit of place and time.	60			
10. GC encourages interaction and participation of shy students.		42	10	8
11. GC fosters cooperation in learning among Ss.		20	6	34
12. GC facilitates interaction and communication between Ts & Ss.	40	10	10	
13. GC promotes social interaction among Ss.	10	20	6	24

The second part of the questionnaire was comprised of five questions to enquire about students' reflection on their communication and interaction with the use of GC during the course. It can be seen clearly from Table 2 that GC played a role in increasing space and time, which were usually limited in traditional classroom settings. Although shy students were said to improve their interaction and participation by 42 participants, 8 of them discarded this statement. Furthermore, it is worth notifying their responses to statement 11 (on learners' cooperation) and 13 (on learners' social interaction), to which were disagreed by 34 and 24 respondents, respectively. These figures disclosed dissatisfaction towards GC that should be seriously addressed.

The final three statements were targeted at discovering how students reflected on their access of information via GC. As illustrated in Table 3, positive responses were collected, with all the participants confirming a prompt access to educational materials necessary to the course, and 44 telling that their IT competences were developed to a certain extent. Although 40 out of 60 respondents got immediate feedback from peers and teachers on GC, a noticeable number of 10 did not share the same thought.

With the aim to grab a better picture of the students' reflection, the first two interview questions were developed to investigate their genuine feelings about GC, together with clear explanation for any further pedagogical implications. Considering what make good points of GC, they shared a great variety of reasons, being friendly interface, various source, flexible time of assignment submission, etc. Also, GC enabled them to

make clear procedures for big assignments and fully access with an Internet-connected device. However, reasons for GC to be an ineffective educational tool, according to the six interviewees, included unattractive interface, limited links to various websites, required Internet access, and the temptation of other online activities. In brief, those comments revealed an undeniable fact that something must be done to make GC an efficient tool for language learning.

3.3.2. Students' expectations for using Google Classroom in Project-based learning

Suggestions for better use of GC in Project-based learning were given throughout one-to-one interviews. As for the interviewees' comment on teacher's role, in order for students to feel more motivated and taken care of, teachers should assign both audio and video recordings. In this way, students are given a chance to practice and improve their presentational skills and language use, not to mention a wider variety to the patterns of classroom practice. Another student suggested that teachers provide more instant comments, with clearly stated rules on early and late submissions of online assignments. This would definitely help generate a feeling of fairness among students.

Interview question 4 helped the authors examine how the students would prefer to interact with their classmates on GC, and their responses could be classified into two main points. Firstly, they would rather receive teachers' private comments for certain matters in order to feel personally treated. Also, for better interactions among class members, there should be assignments or lessons

Table 3. Students' reflection on their access of information

Survey questions	Strongly agree	Agree	Can't decide	Disagree
14. I can have prompt and immediate access to educational materials that I need on Google classroom.	60			
15. I can get immediate feedback from peers and teachers on Google classroom.	4	36	10	10
16. Google classroom helps develop my IT competence.	44	10	6	

that are connected to other online sources. The authors absolutely found those ideas worth considering.

Responses to the final question generated invaluable ideas for thoughts. In details, those interviewed generally stated that a project should be divided into a number of stages, which are featured with periodical assignment through the whole process. For a project to be meaningfully fulfilled, students' final products should be freely chosen from the beginning, and widely presented for free public reviews and comments. Finally, more application of group work was also recommended as a way to ensure the quality of a project.

4. DISCUSSION AND CONCLUSION

From all the data discussed above, the authors were thinking of some specific solutions to minimize the weaknesses of GC. The first step to do should be to create a blank document on Google Drive so that all students' typing is publicized, enabling better interaction among students. An initial thought about such educational online tools as Padlet, Kahoot, or Flipgrid should also be taken seriously. More importantly, as some students may not be skilled enough at using GC, there should be a pre-course tutorial on how to use it. This session is also expected to reveal some of students' strengths and weaknesses, expectations and suggestions on this advancement.

Finally, the data provided the two authors with worthwhile information, as well as inspired us to remain applying GC for later courses, certainly with wise adjustment. For further investigation, an action or experimental research on the same scope can be generated to verify how positive or negative changes of use are. If yes, researchers necessarily consider observing students' online performance and responses via the virtual class.

This study investigates the advantages and disadvantages of applying Google Classroom in learning a project from the students' perspectives. The results of this study are of great significance to the evaluation and reflection of the use of Google Classroom as the virtual classroom used in language learning.

The findings raised some important issues for teachers including reconceptualizing the consequences of the mismatch between teachers' practice of applying Google Classroom and their students' expectations, the drawbacks of using Google Classroom in project-based learning in a university context, teachers' need of appropriate adjustments or strategies which are a common trend of English language teacher education these days. Therefore, the findings of the study have

helped improve the qualities of English teaching and learning, and will inspire both in-service and pre-service teachers to adopt Google Classroom as well as technological advances in their teaching career.

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