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TECHNOLOGY IN ELT CONTEXTS: DOES GOOGLE CLASSROOM PROVIDE SATISFACTORY ONLINE CLASSROOMS CLIMATE FOR UNIVERSITY STUDENTS?

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Abstract : For more than two decades, online learning has been employed to replace ftf instructions. GC has widely recognized to manage digital learning environment. While extensive research has investigated digital classroom mediated by Google Classroom (GC), there is paucity of research exploring participants' views about GC-mediated online learning situated in Indonesian higher education (HE) contexts. We employed a sequential-explanatory research (Creswell, 2018; 2014) intended to explore in-depth the undergraduate students' perceptions about the in-class use of Google Classroom in EFL settings. There were six (N=6) undergraduate students from private Indonesia university consented to participate in this study. We administered a web-based five-point Likert scale questionnaire to collect any necessary data. Also, a semi-structured interview was conducted to explore their in-depth feelings to the selected participants. The results indicated that GC offered enormous potential benefits for organizing online teaching-learning processes. Implications, conclusions, limitations, and recommendations were then discussed.

Introduction

Technology has been widely recognized for its huge potential benefits in education. For teachers, technology can facilitate classroom instructions so that it can accommodate students' needs (Currie, 2016). A contemporary research (Gülbahar, 2007; Lan & Sie, 2010) has recognized technology as potential means for anytime-anywhere learning that can rapidly create effective learning environment. Moreover, the effective use of technology in educational side and its successful integration increases the productivity of instructional processes (Christensen, 2014; Erişti & Kurt, 2012). Nevertheless, technology integration has become a daunting task for all educational stakeholders that require a very special attention in terms of preparing this technology-mediated classroom.

In the last few decades, mobile devices have also been gradually infused into educational context. Numerous studies have acknowledged that mobile learning (M-learning) has dynamically transformed traditional learning (henceforth, T-learning) as it offers many interactive learning opportunities in language learning. Prominent scholars

have claimed that it supports learners by providing an instant learning access to various learning resources without constraining by time and location (Elaish et al., 2017; B. A. Kumar & Chand, 2018; Lam et al., 2010; Martin & Ertzberger, 2013; Wu et al., 2012). It also offers a wide range of possibilities to collaborate and facilitate knowledge sharing among teachers and students (Al-emran et al., 2016). It can also stimulate social interact ions between students and between students and instructors in the virtual learning environment (VLE) (Kukulska-hulme et al., 2014; Sarrab et al., 2018).

Moreover, many existing academic literatures have recognized the vital roles of mobile devices for technological-based language instructions, particularly in EFL settings (Al-emran et al., 2018; Lyddon, 2016; Sarrab, 2015; Yousafzai et al., 2016). More specifically, this mode of learning has been recognized as greatly helpful in many areas of EFL teaching-learning scenarios; for example, in writing (Andujar, 2016), speaking (Lee et al., 2019; Moreno & Vermeulen, 2015), listening (Azar & Nasiri, 2014), vocabulary (Alemi et al., 2012; Klimova & Berger, 2018), and grammar (Klimova & Toman, 2020). Yet, despite its huge potential benefits, some contemporary research reported the contradictory findings. Miangah and Nezarat, (2012), for instance, claimed that geographical areas become one of the shortcomings for integrating mobile devices into EFL classroom. Hence, there are still open issues to be explored in the realm of EFL settings.

These days, several platforms have been founded to be integrated into classroom practices. One of them is the integration of learning management systems (LMSs) to support digital learning environments. Those online platforms (e.g., Moodle, Edmodo, Blackboard, and Google Classroom, etc.) create interactive learning by facilitating students-teacher interactions, file-sharing, and collaborative learning. Google Classroom (henceforth, GC) was launched in 1996 developed by Sergey Brin and Larry Page in an academic research project to examine the importance of a website by checking its backlinks (Lee, 2016). Still in the same reference, he reported that as of 2016, there are 50 million users of Google Apps for Education. 10 million students and teachers are using Google Classroom in 190 countries. It is one of a free-access platforms that allows anyone to create and manage his/her distance learning (Kumar & Bervell, 2019). An empirical research finding claimed that GC has been on top 7 in educational technology software tools which has the advantages of simplify creating, distributing, and grading assignments in a paperless environment using this blended learning platform (Currie, 2016). Abazi-bexheti et al., (2018) reported that GC was adopted as a solution for more than a decade in South East European University. Many contemporary researches carrying out in higher education (HE) settings in Asia reported similar findings that GC offers a quick and easy access to learning materials, secure cloud storage, collaborative learning atmosphere, and facilitate paperless virtual learning environment (Al-maroof Saeed & Al-emran, 2018; Kumar et al., 2020).

Though contemporary studies on GC have been conducted in many different contexts around the world, research investigating the undergraduate students' perceptions of the GC-mediated online learning situated in Indonesian HE realm is still remain under-explored. To address this issue, it is highly required to explore the undergraduate students' perceptions about the integration of GC in EFL contexts. Hence, this research aims to explore in-depth the undergraduate students' perceptions about the in-class use of GC in EFL setting. The present research will have contribution as constructive inputs for software developers to re-design the features of GC for promoting more effective in–class use of GC in the EFL context. Also, it can hopefully provide insights for EFL instructors in particular as inputs for modeling online classroom instructions. Therefore, the research question guiding in this study is "What perceptions do the undergraduate students have toward GC integration in EFL classroom?"

Method

This current research was drawn upon post-positivism and constructivism paradigm (Creswell, 2018). We employed a sequential-explanatory research (Creswell, 2018; 2014; Ivankova et al., 2006) of the HE students with respect to the use of GC in EFL classroom. As the name suggests, it was comprised of a particular sequence in collecting and analyzing both quantitative and qualitative data (Creswell, 2018). In so doing, the author initially gathered the participants' responses through the distributed questionnaire in the first phase. In the second phase, the author collected qualitative interview data from selected participants to flash-out the quantitative result, data analysis result to get deeper understanding about the issues.

Research Context and Participants

We followed ethical procedure proposed by Hammersley and Trainanou, (2012). We asked for participants' permission by sending an email to the head of English education program. He, then, sent an access to the captain as the confirmation that we were allowed to conduct research in this program. We sent a letter of consent to him and asked him to distribute it to their classmates. After signing the letter, there were the 6 third-year undergraduate students in one of a private university in Jember, Indonesia, voluntarily involved as research participants. They were comprised of 18,75 % male and 81,25% female students, ranging from 20 – 22 years of age. The selection of these participants was based on their willingness to respond the distributed web-based questionnaire and carry out in-depth interview about their reactions to GC integration into their virtual classroom. In addition, they admitted that they had several years' experiences in using GC in their learning. In other words, they had excellent skills in using GC. They were therefore appropriate to be involved as research participants in this study.

Instrument

A web-based questionnaire uploaded via Google form was designed as the main instrument to obtain all-necessary data in this current study, following the instructions and procedures as recommended by Manfreda and Vehovar, (2008). The structure of the questionnaire was a modification an d adaptation from several relevant contemporary studies(Al-maroof Saeed & Al-emran, 2018; Kumar & Bervell, 2019). It was intentionally prepared in participants' native language, Bahasa Indonesia, to minimize the possible communication gap.

As suggested by Dörnyei and Taguchi (2010), this web-based questionnaire consisted of two main sections comprised of the several questions to collect participants' demographic information (factual questions) and several items of behavioral and attitudinal questions to gather the data related to their perceptions about GC integration in EFL classroom. More specifically, section 1 was open-ended questions designed to collect the participants' demographic profiles including their gender, age, and experience in using GC. Section 2 was closed-ended questions in the form of forced-choice Likert-type items ranging from 1 (strongly disagree) to 5 (strongly agree). This section consisted of 9 questions in total; 1-items questionnaire about perceived of usefulness, 1-items questionnaire about the ease of use of GC, 1-items questionnaires about GC learning atmosphere, 2-items questionnaire regarding learning productivity, 2-items questionnaires about GC in promoting interactions, 1-item questionnaire related to efficiency and 1- item questionnaire about recommendation of GC. The link of the questionnaire was shared via WhatsApp group of the class and the students then filled in it individually.

The second instrument, focus-group interview, obtained the data by adopting a qualitative approach, as suggested by several early studies (Al-maroof Saeed & Al-emran, 2018; Burner, 2015; Kumar & Bervell, 2019). A focus-group interview was conducted in Bahasa Indonesia with randomly selected participants. According to todays' pandemic situations, the interview was conducted using voice note feature available in WhatsApp. It consisted of 3 open questions focused on understanding students' views about GC integration into EFL classroom. The 3 open questions asked were (a) the strengths and weaknesses of GC, (b) the feature of GC, and (c) technical problems frequently appear in GC. This interview was performed at the end of the semester, as also recommended by Kumar and Bervell (2019)

In the wake of piloting the instrument, a last 9-questionairre online review survey was made for the primary review including these after general classifications: 1-items questionnaire about perceived of usefulness, 1-items questionnaire about the ease of use of GC, 1-items questionnaires about GC learning atmosphere, 2-items questionnaire regarding learning productivity, 2-items questionnaires about GC in promoting interactions, 1-item questionnaire related to efficiency and 1- item questionnaire about recommendation of GC. After the survey and adjustments, to approve the underlying

aftereffects of this instrument, it was pilot with a sample (6 experienced EFL Understudies). They did not include as participants in the primary review

Before administering this instrument to participants, several experts specializing in both ELT field and technology integration were also involved to evaluate the content validity of the initial items of this instrument. Some of the irrelevant items were then deleted based on their reviews, feedbacks, and comments.

Data Analysis

Descriptive statistics using SPSS v.25 software was employed to analyze the data collected from web-based questionnaire. Reliability test was also performed, with the Cronbach's Alpha of 0,896, signaling a reliable internal consistency (Cohen et al., 2007, p. 506). Only then, the results were interpreted by calculating the frequency, percentages, means (M), as well as standard deviations (SD) for each questionnaire item. For qualitative data resulted from focus-group interviews, we analyzed them using Widodo's (2014) data transcriptions framework: (a). Attentive listening to transcribing the data, (b). Shaping the data on transcript layout, (c) Interpreting and communicating interview data, (d) Building data credibility by providing an opportunity to participant to confirm the accuracy of data.

Result

GC in Perceived of Usefulness

The participants were asked to demonstrate their feelings concerning the usefulness of GC in their daily course. The result of participants' responses indicated that there were 66.7% (n=4) agreed that GC is extremely beneficial for their learning. Meanwhile, two of them (33.3%) opted to choose neutral option. Table 1 illustrates their all responses in more details.

Table 1. GC in Perceived of Usefulness

No.	Question(s)	SD (%)	D (%)	N (%)	A (%)	SA (%)	M	Std. D
Q1	I find GC useful for my course	0	0	33.3% (n=2)	66.7% (n=4)	0	3.67	0.516

Note: SD: Strongly disagree, D: Disagree, N: neutral, SA: Strongly agree, A: Agree, M: Mean, Std. D: Standard Deviation.

Ease of use of GC

For the ease of use aspect, there were three (50%) participants admitted that they felt easy to operate GC in there online learning. Unfortunately, a half of participants demonstrated hesitation. Table 2 illustrates this result in more details.

Table 2. Ease of use of GC

No.	Question(s)	SD (%)	D (%)	N (%)	A (%)	SA (%)	M	Std. D
Q2	It is easy to operate Google Classroom	0	0	50.0% (n=3)	33.3% (n=2)	16.7% (n=1)	3.67	0.816

Note: SD: Strongly disagree, D: Disagree, N: neutral, SA: Strongly agree, A: Agree, M: Mean, Std. D: Standard Deviation.

Learning atmosphere of GC

Table 3. Learning Atmosphere of GC

No.	Question(s)	SD (%)	D (%)	N (%)	A (%)	SA (%)	M	Std. D
Q3	Using Google Classroom is fun, enjoyable, and entertaining compared to traditional classroom.	0	16.7% (n=1)	33.3% (n=2)	33.3% (n=2)	16.7% (n=1)	3.50	1.049

Note: SD: Strongly disagree, D: Disagree, N: neutral, SA: Strongly agree, A: Agree, M: Mean, Std. D: Standard Deviation.

Table 3 clearly describes the participants' responses on GC in facilitating an enjoyable and entertaining learning environment. The results of the descriptive statistics analysis revealed that there were 50% (n=3) participants claimed that they agreed with the statement. Only one participant (16.7%) expressed disagreement; meanwhile, two participants opted to choose indecisive options.

GC in promoting students' Learning productivity

Table 4. GC in promoting students' learning productivity

No.	Question(s)	SD (%)	D (%)	N (%)	A (%)	SA (%)	M	Std. D
Q4	Using Google Classroom increases my learning productivity	0	0	0	100 (n=6)	0	4.00	0.00
Q5	Using Google Classroom enables me to achieve course related tasks more quickly (downloading notes, assignment submission, etc.)	0	0	50.0 (n=3)	33.3 (n=2)	16.7 (n=1)	3.67	0.816

Note: SD: Strongly disagree, D: Disagree, N: neutral, SA: Strongly agree, A: Agree, M: Mean, Std. D: Standard Deviation.

For item 4 the results concerning students' learning productivity indicated very strong agreement (100%), the analysis of Q5 resulted that the percentage of students' agreement showed 50% (n=3) with M=3.67 and SD= .816 indicating that students felt easier to share and access learning materials, and submit the assignment.

GC in promoting interactions

Table 5. GC in Promoting Interactions

No.	Question(s)	SD (%)	D (%)	N (%)	A (%)	SA (%)	M	Std. D
Q6	I use Google Classroom to access online materials and interact with peers and instructor.	0	16.7 (n=1)	16.7 (n=1)	66.7 (n=4)	0	3.50	0.837
Q7	Google Classroom can clearly promote students'- teachers' and students'- students' interaction.			66.7 (n=4)	16.7 (n=1)	16.7 (n=1)	3.50	0.837

Note: SD: Strongly disagree, D: Disagree, N: neutral, SA: Strongly agree, A: Agree, M: Mean, Std. D: Standard Deviation.

Table 5 illustrates the result of statistical analysis on Q6 and Q7. According to the analysis on Q6, the majority of the students admitted that GC provides an easy access to learning materials. In addition, it also facilitated students-students and students-teachers interaction To be specific, more than two-third participants (66.7%) opted to choose positive responses, while the disagreement option was only 16.7%, and neutral option was only 16.7% (Mean = 3.50, SD = .837). For item Q7, there were two participants (33,3%) chose agreement option. Whereas over a half participants 66.7% chose indecisive option.
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Online Classroom Time Efficiency

Table 6. Online Classroom Time Efficiency

No.	Question(s)	SD (%)	D (%)	N (%)	A (%)	SA (%)	M	Std. D
Q8	Google Classroom saves my tim	0	0	33.3 (n=2)	66.7 (n=4)	0	3.67	0.516

Note: SD: Strongly diagree, D: Disagree, N: neutral, SA: Strongly agree, A: Agree, M: Mean, Std. D: Standard Deviation

Regarding students' response on Q8, there were four percentage 66.7% confessed that GC facilitated students' learning efficiently. While the tiny proportion for students felt neutral was 33.3% (n=2) (Mean = 3.67, Std = .516

Recommendation in using GC

Item Q9 reported that a half of students were in neutral option, while the result of analysis also displayed a proportion of 33.3% for agreement, and a tiny proportion (16.7%) students felt disagreement. The data resulted from students' responses on Q9 are displayed in the following table.

Table 7. Recommendation in using GC

No.	Question(s)	SD (%)	D (%)	N (%)	A (%)	SA (%)	M	Std. D
Q9	I intend to continue using Google Classroom in the future.	16.7 (n=1)	0	50.0 (n=3)	33.3 (n=2)	0	3.00	1.095

Note: SD: Strongly disagree, D: Disagree, N: neutral, SA: Strongly agree, A: Agree, M: Mean, Std. D: Standard Deviation.

Result from the Students Interview

For cross-checking the students' perceptions toward GC, the semi-structured interview were performed with 2 students (1 males, 1 females). Findings from the analysis revealed 3 major themes with regard to the in-class use of GC Application in EFL setting: (1) What is the strength and weakness of GC according to you?, (2) What do you think about the Features of GC in your learning?, (3) Do Technical problem frequently appear in GC while in use of learning?

When the participants were asked to describe the strengths and weaknesses of GC Implementation in learning, they mentioned that it is attractive, and easy to operate. Moreover, the weakness was just simple feature in recording students' attendance. They shared:

GC is easier to operate, for example: when I first used GC, I didn't have much difficulty operating it. It's different from other applications that I felt difficulties to use. (Student 1)

If we want to enter GC, we don't need to use a username and password because the username and password are only used once when we want to create an account. (Student 2)

In Google classroom, we can't be absent like in other applications such: the absence of GC, we have to type attendance while in other application we just click on the absence. (Student 2)

From the interview, email notification was found to be the main contributing factor to GC implementation. As one of the participants claimed:

In my opinion, Google classroom can provide notifications via our email that is different with other applications. For example, when a lecturer starts a class through google classroom and asks students to be absence. (Student 1)

Google classroom provides notifications via my email also the notification is very important, because with that notification I'm never late for an absence, and it's not too late to know if there's an assignment. (Student2)

In terms of technological problem in GC, the interview responses indicated their considerable to use GC again and The GC usage, most of the students reported that they were very keen to use GC for their learning.

When I was still starting to use other applications, I had a hard time uploading my assignments, because in other applications is not easy as GC for uploading my assignments. (Student1)

Discussion

This current review expects to give an in-depth description of EFL understudies' view of the in-class utilization of GC in university. By and large, the discoveries showed the positive reactions concerning GC into the EFL classroom on the parts of beneficial of GC. The empirical data resulted from the analysis on statement 1 indicated that GC could assist participants in their online course. The results of data analysis reveal that GC provides an easy access to share learning materials. This findings were in line with previous articles, (Alqahtani, 2019; Heggart & Yoo, 2018; Hussein et al., 2020; Izenstark & Leahy, 2015; J. A. Kumar et al., 2020; Syed Ahmad et al., 2020) reporting that the participant felt that GC is easily accessible for both uploading and downloading learning materials.

The next statement 2, "easy to operate", the analysis reveal based on the data GC were easy to use in the activity of online learning. Moreover, Kumar et al., (2020), claimed that GC usage could assist several aspects: easy to navigate, Learnability, Easy access to learning contents, easy to operate on their learning and social networking activities in mobile learning technology and etc. Also regarding the enjoyment of using GC, nearly the responses (50.0%) Presumed that they were all the more enthusiastically drew in while utilizing GC in the classroom setting, which is same line with past works(Abazi-bexheti et al., 2018; Gupta & Pathania, 2020).

The consequences of the examination on Q4 there were essentially demonstrated that there is convincing evidence of very high level (100%) based on GC, in conditions of cultivating understudies toward learning productivity. This information proposes that this stage is seen as a guarantee instrument to help the two instructors and understudies to reinforce intuitive learning conditions. This finding confirm with several recent literature (Kumar et al., 2020; Kumar & Bervell, 2019). This result was Similar to responses on item 5 indicated that the half of participants (50.0%) confessed this platform could create more effective features such downloading notes, assignment submission, etc. that makes student felt easy in learning. This finding substantiated previous academic

publications, (Hegart & Yoo, 2018) in saying that GC can effectively the platform encourages collaboration, especially between students.

As presented in table 5, a vast majority participant (66.7%, versus only 16.7% who expressed negative responses) admitted that GC activities assisted the students in discussing online material. This finding in relation to initial literature (Gupta & Pathania, 2020; Izenstark & Leahy, 2015; Perrotta et al., 2020) which affirm that, worried in conversation online material GC could worked with curators who work with enormous courses or numerous areas of a course in virtual classroom to guarantee that all are getting similar connections, materials and support by having a similar class code with those understudy. The results of the seventh statement demonstrated that participant's interaction with both student-student and student-teacher significantly increased. From the analysis of Q7, it can be highlighted that incorporating GC in the classroom can promote an interactive environment among the teacher and the students. In educational context, the teacher-student interactions have been acknowledged as a crucial factor for the students to meet the demands of cognitive and affective learning outcomes in virtual meeting (Chuaphalakit et al., 2019; Ebadi & Rahimi, 2017; Perrotta et al., 2020). Recent research has also recognized that such interpersonal connectedness can positively affect the students' L2 motivation.

In the light of the participants' views on item 8, it could be strongly indicated that GC offers huge potential benefits for teaching-learning especially for time-saving activities for users such as: file-uploading features, online submission assignment, and grading system. These potential benefits are also acknowledged by a recent study (Iftakhar, 2016) admitting that GC powerful to promote time saving activities. As regards the GC advice, 33.3% acclaimed that they proposed GC be fused all the more frequently in educating learning processes, which is significantly higher than disagreement responses (16.7%) and 50.0% of those who chose neutral option. These participants' reactions affirmed a few past investigations (Al-maroof Saeed & Al-emran, 2018; Gupta & Pathania, 2020; Hussein et al., 2020), which likewise showed a solid consent to prescribe this stage to be carried out more frequently in online learning climate

In regard to survey from this current review's findings, it tends to be firmly demonstrated that GC offers colossal possible advantages for getting sorted out web-based educating learning processes. Besides, the teachers ought to likewise think about how to incorporate this application appropriately to make and foster significant learning for their understudies. Since it enormously affects understudies' commitment, motivation, social cooperation, and assignment, it is the instructors' obligation to re-conceptualize of how it will be incorporated to successfully animate the understudies' retention.

Conclusion

As beforehand, this current review was embarked to address the examination question about the understudies' perspectives on Technology in ELT contexts: Does GC provide satisfactory online classrooms climate for university students?. Generally, in the wake of performing cautious examinations on the information accumulated from web-based questionnaire, it was clear that the findings give solid signs that the participants had an undeniable level acknowledgment perceiving GC as the promising application to upgrade the English-language learning process.

To be more specific, they for the most part felt that it could create constructive outcomes on classroom elements, producing the understudies' advantage and fixation, just as learning execution. In any case, prominent inborn limits ought to be accepted into contemplations. First, the participants deliberately engaged with this review were exceptionally restricted (n = 6). Thus, there is a fundamental prerequisite to do enormous scope research.

Second, the information assembled in this review doesn't cover a wide geological region as it includes the participants generally situated in the eastern areas of Java, Indonesia. Future researchers could rotate around researching the EFL educators' showing experience utilizing GC in various foundations in various topographical areas so the more precise portrayal of information would be accomplished.

Third, since this review explored the EFL understudies' insights in advanced education setting, the discoveries couldn't be summed up to different settings in various degrees of instruction. The perspectives of EFL university instructor remain under-explored. Subsequently, center around researching EFL teachers at advanced education level. Investigating GC from the instructors' point of view would be urgent for creating just as planning advanced educational task situated educating rehearses.

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