Is Face-to-Face Learning Better than Online Learning? Teachers’ voice on the Use of Google Workspace

Nuraeni
nuraeni@umma.ac.id
Pendidikan Bahasa Inggris, Universitas Muslim Maros Indonesia

Received: 04 October 2021    Accepted: 13 December 2021
DOI: 10.24256/ideas.v9i2.2176

Abstract
The study focused on teachers’ voices on the use of Google Workspace (G-Workspace) for education amidst the pandemic. The objects of the study were seven participants. All the participants were teachers at Universitas Muslim Maros. The data was collected using a structured interview. The collected data was analysed using Miles and Huberman's analysis. The result showed that from the perspectives of teachers, G-Workspace had been used as a group of applications to portray the real offline classroom. The most used applications were G-classroom, G-Meet and G-Mail. Unfortunately, there were some unpopular applications such as G-Calendar and G-Jamborad. G-Workspace promotes integrated applications and collaborative learning. From the result, the integration of the applications gave advantages to the participants as they could open some applications through G-Classroom. Meanwhile, working collaboratively was not the best option as the result of the lack of knowledge on collaborative online learning as well as the incompatible device from students. Notwithstanding, G-Workspace had helped most participants to achieve their learning objectives and they referred to it as helpful applications for learning. However, some participants believed that even though G-Workspace had been a medium for distance learning, they were not able to ensure students' understanding of the material. Therefore, they chose face-to-face learning as the best way to deliver the teaching material.

Keywords: Distance Learning; Google Workspace; Google Application;
Introduction

It has been more than two years since many countries around the globe including Indonesia have suffered due to the unsolved pandemic called Covid-19. This condition compels the government to take some actions in order to reduce the spread of covid-19. Consequently, education sectors have to undergo government policies to work from home. As a result, Distance learning is chosen as the only way to ensure teaching and learning processes can run (Wang, 2014). However, this sudden change can influence both teachers and students. The teachers need to change their teaching method to deliver material to students as they cannot supervise them directly. Meanwhile, the students need to change their learning environment, learning time and learning instrument to get used to distance learning (Gustiani, 2020).

Distance learning is defined as online classes that were delivered totally over the internet (Nguyen, 2015). It is “a process to create and provide access to learning when the source of information and learners are separated by time and distance, or both” (Honeyman & Miller, 1993, p. 68). In other words, this is the opposite of traditional learning, the process happens distantly and counts on the use of technology (Bušelić, 2012). Thus, distance learning forms characteristics such as (1) teacher-student separation, (2) students’ accountability and independence, (3) teachers’ creativity in managing instructional resources, and (4) using technological innovation as instructional media (Yaumi, 2007).

Due to the radical shift from traditional learning, the implementation of distance learning might lead to the decrease of students’ learning motivation, particularly to students who have never experienced distance learning (Thach et al, 2021). The reality said that students mostly preferred to choose offline face to face rather than online learning. A study from Callaway (2012) found that students have no problems with the online learning environment but encounter challenges with online instruction. The problems mainly come from the failure of interaction between students and teachers as they do not meet face to face (Jang & Kim, 2014; khojasteh et al, 2021) Therefore, in this pandemic era, it is crucial to provide online learning tools that can create the convenience of the online instructions.

Amidst the pandemic, Teaching and learning innovation enhance rapidly. Many technology developers develop a variety of learning platforms that function to allow the teachers and the students to conduct document collaboration, to meet face to face virtually and many other functions (Romero, 2018). Unfortunately, many of the applications concerned only one function and cannot be integrated with one another (Romero, 2018). One of the well-known platforms which are friendly to use and offer applications in one place is Google Workspace (G-Workspace) for education (previously named Google Suite). It is a set of Google tools and services that are tailored for schools and home schools to collaborate, streamline instruction, and
keep learning safe (support.google.com). These tools provide applications that can assist students to learn such as (1) Gmail: Email system for official communication; (2) Classroom: Environment, where the course groups are created and managed by the lecturers, learning materials and home works, are given and collected for checking; (3) Forms: Part of Google Docs, where a lecturer can create a quiz form. (4) Calendar: Setting up the meeting (online lecture) time and dates with reminding possibilities for the students and lecturers; (5) Drive: Recorded classes (meetings) will be uploaded to the drive folders and shared to the class members; (6) Jamboard, Drawings: The online board tools from Google where the boards and drawings can be shared to the users and do collaboration; (7) Hangouts Meet: Online meeting environment, where the video conference will be held with the capacity of up to 100 students (Basilaia, et.al., 2018, p.103).

Studies about the use of Google applications have been conducted even before pandemic stroke the world as a new phenomenon in the education field. Google Inc. offers many cloud computing applications to promote online learning. The popularity of google applications in education attracted many researchers. A study from Awuah (2015) was conducted to acknowledge the role of google applications towards students’ performance and satisfaction. The result revealed that students were satisfied with their academic performance after learning using google applications for education. In addition, students claimed they were more engaged in online learning than traditional learning methods. Similarly, a result was found from a study conducted by Lindh, Nolin & Hedvall (2016). They carried out the research to find out how to implement these applications in school life. The result showed that the use of the applications was successful and perceived as new dimensions of cloud technology in education.

However, the opposite result was shown by a study by Owayid & Uden (2014). As the popularity of the applications emerged, they conducted the study to perceive the effectiveness of google applications in communication between IT staff and students. The result showed that the use of Google applications to communicate with students was less effective. It is due to the preference of the IT staff to choose face to face interaction rather than online interaction. However, the researchers realized that the findings could not be generalized as the study involved one institution only.

After the pandemic hit the world and distance learning is a requirement to perform the learning process, the research about distance learning became prominent including the use of google workspace applications for education. Zdraveski et.al. (2020) conducted a study to bring to light the benefits and challenges of using G-Workspace applications. In their study, they intended to find out students’ perspectives of the use of the applications. The result showed that most students still believe that traditional learning is the best way to achieve learning.
They find it difficult to run the applications such as user registration, downloading materials and problems with internet access. However, they are able to obtain the benefits of G-Workspace such as the apps being easy to use and the possibility of teacher-student interactions. Mobo (2021) carried out a study about the effectiveness of distance learning using google apps amidst the pandemic. The result showed that Asynchronous applications from google benefited students in distance learning. From the data, students choose to learn using google apps rather than traditional classrooms. For overall perception about distance learning, most students chose to be neutral. However, there were still more to feel satisfied with the distance learning than those who were not satisfied.

From the studies mentioned previously, most of them discussed the effectiveness of G-Workspace in learning from the viewpoint of learners. One study by Lindh, Nolin & Hedvall (2016) involved all academic staff in a school. However, little did the study mention the teachers’ perspective of the application of G-Workspace. Therefore, this paper presents the voices of the teachers in distance learning using G-Workspace applications amidst the pandemic era.

**Methodology**

This is qualitative research using the phenomenology approach. This research used structured interviews. The participants of the research were seven teachers from Universitas Muslim Maros. The data was collected through online interviews using G-Meet. The data was recorded using a recording feature from G-Meet. The recordings then were transcribed then analysed used Miles and Huberman’s (1994) qualitative analysis's flows of activity: data reduction, data display and conclusion.

**Findings**

In describing the data of the research, the researcher used descriptive analysis. Seven questions were asked during the interview session with seven participants. The questions were about teachers’ views on the use of google workspace for distance learning. In Explaining the data, the researcher used charts as follows.

1. **Google Workspace Term**

   ![Figure 1. The familiarity of the term of G-Workspace](image)
The first question was about the term Google Workspace. The researcher intended to acknowledge what the participants know about the google workspace term, what it is and what it is used for. From the pie chart, the result indicated that most of the participants acknowledged this term. One of the participants explained that it was named after Google Suite before it changed into google workspace. Meanwhile, some of the participants apprehended that google space is a place for a group of applications that can be used for education purposes.

Nevertheless, more than a third of the participants were blanked when they were asked about this term. One of the participants said that she had never heard this term before. Thus, after being explained about it, they began to understand. This term was necessary to be acknowledged by every participant since the rest of the questions were about the application in google workspace.

2. The most used application for distance learning

The second question was about the application that they used the most. From the result, five applications from google workspace were mentioned mostly (classroom, meet, drive, form and mail). The data showed that all participants always used G-Classroom dan G-Drive as the main application for distance learning. According to participant 07, the use of G-Classroom and G-Drive in teaching activity cannot be separated because the teaching material that had been uploaded to google classroom would be automatically stored in google drive as back data.

“Because we are teachers, we definitely use Google Classroom and Google Drive to store important files. Right, if you upload teaching materials for students on Google Classroom, it will be automatically saved in Google
Is Face-to-Face Learning Better Than Online Learning? Teachers’ voice on the Use of Google Workspace

Drive, so if we want to revisit the teaching materials, we can open them via Google Drive” (Participant 07)

The second-best application according to the data was Google Mail. It showed that almost all participants usually used Google Mail for their daily activity. They said that Google Mail was used not only for teaching but also for daily regular usage. For education purposes, the participants used it to interact with their students to conduct academic consultation such as supervising students’ academic writing. Also, it was used to send bigger data that was not able to be sent through G-Classroom. However, participant 02 did not use G-Mail much. He said that the mail was only for activity notification for other applications such as G-Meet and G-Classroom.

“Sometimes I use G-Mail when I need the students to send me like the task but.. like now... the season of thesis ...we need to supervise. They need to send it using my G-Mail...like students need to send me like.. huge .. the size of data is bigger; so I need them to send me using G-Mail” (Participant 05)

“If you want to send the task, the notification will be sent directly to G-Mail. So email .. just as an account only. If the email itself is rare, because everything must be recorded on Google Classroom. Because that’s the provisions of the campus” (Participant 02)

The third-best application was G-Meet. Most participants always integrated it with Google Classroom. They said that they upload the material in G-Classroom but they still need to do virtual face to face learning using G-Meet in case students did not fully understand the material.

“For Google Classroom, it is provided for teachers to teach online, provide material, then virtual face-to-face which is synchronized to Google Classroom to make students understand better” (Participant 07)

Meanwhile, G-Form was considered as the least used in this most used application. Almost all the participants often used it if they gave them a summative examination. Participant 01 opined that G-Forms was useful for making attendance lists. Then she would set up the due time for filling the attendance. So the students would come on time to the meeting. Meanwhile, Participant 05 said that she only used this application if she wanted to give examinations to students.

“Usually, for attendance lists using Google Classroom, I use a timer.
Because usually there are students who just fill in the attendance lists and do not follow the lecture. So, I used a timer. And after the timer is over, the Google form for attendance lists can be accessed anymore” (Participant 01)

“I use Google form during exams via Google Classroom” (Participant 06)

3. The least used application for distance learning

The third question was about the applications that they sometimes or rarely or never used. Six applications were on the list of the least favourites for teaching and learning purposes (Slide, Docs, Sheets, Jamboard, Calendar and Chat). From the data, it was revealed that G-Slides and G-Chat were not popular at all. All participants never heard of G-Chat, while they also did not use G-Slide for teaching.

“google chat? What is that. I don’t know” (Participant 05)
“o... [google chat] this is the first time for me to hear that” (Participant 01)
“I do not use google slide. I use ppt [PowerPoint] in my computer then I present in google meet” (participant 03)

The second-least favourite for distance learning applications were G-Docs, G-Sheets and G-Jamboard. Participant 02 remarked that he sometimes used G-Docs to create a task for the students and also for collaborative purposes. He also added that he occasionally used G-Sheets to create attendance lists for the students. In the meantime, G-Jamboard was not used by many participants as it was difficult to apply...
Nuraeni

*Is Face-to-Face Learning Better Than Online Learning? Teachers' voice on the Use of Google Workspace*

to distance learning. Some participants used it only once for explaining the material. Participant 02 believed that G-Jamboard was ideal for collaborative learning. Therefore, he once tried to use it but all students did not have a tablet, so it was hard to collaborate when he was the only one to have a pen tablet.

"For google documents, it's only for creating assignments and creating collaboration tasks, and google sheets is for creating automatic attendance lists" (Participant 02)

“which almost never is, namely the jamboard. Actually, if you want to use a jamboard, you have to use a pen tablet. Well ... let alone a table, laptops are also rarely owned so they go online via cell phones. So if you want to use jamborad and I'm the only one who use it, it won't be optimal” (Participant 02)

Meanwhile, G-Calendar was not a famous application. Participant 04 said that she knew about this application but did not know how to use it. Therefore, she never used it. However, some participants still used G-Calendar and G-Docs occasionally. One of the participants remarked that he used G-Docs to create a task for the students. He added that he once in a while used G-Calendar as a notification for himself as well as for students if they had a meeting to attend.

“Calender is not really needed and doesn’t know how to use it” (Participant 04)
“Calendar is rare, but it's already integrated automatically as a reminder” (Participant 02)

4. **Google workplace to help students to learn**

![Figure 4. Teacher opinion of G-Workspace](image)

The fourth question was about whether the applications in the G-Workspace can help students to understand learning material. The researcher wanted to
perceive how the applications assisted students in distance learning. From the pie chart, none of the participants said that it was not helpful. However, more than a third of the participants were unsure they could fully achieve the learning outcome of the lesson they taught. One of the participants said that he was not sure if using google education could improve students’ learning. It is due to the fact that students were forced to do distance learning as a new curriculum from the government. He believed that forcing students to study using unfamiliar methods led to unsuccessfulness.

"Actually, if I want to be honest, it's not as effective as face-to-face. Just because of the pandemic, we must use google classroom" (Participant 02)

The other participant also contended that it was difficult to ensure that students could follow the learning material. From her experience using G-Meet, it was hard to ensure that they had understood the material or not. It was because they did not meet face to face. Therefore, she said that the chance for students to understand the material depended on them as they needed to construct their own learning at home. She then added that as a teacher she needed to work hard to find a good learning strategy to achieve learning outcomes.

"If you say that 'they can understand the material better'... it depends of the students. because sometimes they are there but they do not notice the material given by the teacher. I don’t know... It depends on the students. or may be the teacher needs to provide the material in a good way so... students can acquire the material better” (Participant 05)

Nonetheless, more than two-thirds of the participants claimed that the students were able to reach the learning outcomes using distance learning. Most of the participants said that even though teachers and students faced challenges in the initial distance learning era due to pandemic situations, through time, they were used to learning in this way. Thus, the use of G-Workspace for education was able to assist students to learn. Participant 03 shared tips to make the students keep on focusing on learning. She said that when giving learning material, a teacher needed to make it simple. The teacher should shorten out the important parts of the teaching material. Also, the material should be clear and not leave confusion on students when they comprehend the material. Meanwhile, participant 04 said that students became more active when she gave discussions.

“very well. So the tips, the important thing is that the material and task
Nuraeni

Is Face-to-Face Learning Better Than Online Learning? Teachers’ voice on the Use of Google Workspace

are clear, simple, don’t be too complicated. Points only. I think the important thing, the material must be clear “ (Participant 03)

“So far, the students are good. If the discussion is more productive than us talking” (Participant 04)

5. Collaboration using google applications

One of the functions of G-Workspace is undergoing collaborative work. Therefore the fifth question was about collaborative work. The result indicated that not many of the participants, unfortunately, were engaged in collaborative online learning since they did not have the knowledge. From all the participants, only a small number of the participants acknowledge how to operate cooperative distance learning. Participant 02 had tried to apply it to the students however it did not work. He did a collaboration using G-Jamboard with the students. Unfortunately, he was the only one to have a pen tablet and the other students were using handphones on laptops. Therefore, the collaboration did not run well. Meanwhile, Participant 05 used google sheets to perform collaborative work with co-workers. Due to work for home regulation, she needed to work at home and used G-Sheets to work together with her colleague at the same time.

“Actually, if you want to use a jumboard, you have to use a pen tablet. Well... let alone tables, laptops are also rare for students, so they only can go online via cell phones. So if I want to use jamborad and I’m the only one who uses it, it’s not optimal, so it’s better to use power point because the goal is jamborad for collaboration like a whiteboard.. for example, I give questions.. They can answer it on the board. But not everyone has a pen tablet, so I rarely use it” (Participant 02)

“Emmm.. google spreadsheet.. Sometimes for my work in the institution,
biro send me (to work) and they ask me to edit based on what I need to edit and we can work it together... I mean from another program study . we can work together at the same time” (Participant05)

6. Teaching strategy for distance learning

The sixth question was about additional teaching strategies to engage students in learning activities. Most participants claimed that they apply a strategy to trigger students to be more active in the learning process. In fact, they shared the same strategy; giving rewards. The participants said that before the online class started using G-Meet, they told the students that they would earn points depending on their active participation during the class. With that in mind, students tried to be more active by asking questions, giving their opinions or answering questions. Participant 03 said that the more the student rose up against their hands and asked or answered or even if they could give an additional opinion, the more score they got. As a result, most students were engaged and took part actively. From this strategy, the learning objectives of the lesson could be achieved.

“ I asked questions in the initial meeting, the score will be taken from being active during the discussion, asking questions in the discussion so they will become active”(Participant 04)

“First I asked them to turn on the camera, at the end of the material there was an assignment. Usually when I explain [the material], I immediately point it out [to students]... for example... ‘who can [answer the question] if you can’t answer, you won’t get a score. So I’ll give you an early
Nuraeni

Is Face-to-Face Learning Better Than Online Learning? Teachers’ voice on the Use of Google Workspace

notification... if you can answer 5 times, it means your score is B and above. If you have answered or objection during the discussion, you have already received a plus point. I asked them to be active. Especially during discussions” (Participant 03)

7. Integrating application

![Figure 7. Integrating Application](image)

The seventh question was about integrating some applications in G-Workspace. From the result, all participants integrated the google application. As educators, all participants integrated G-Classroom, G-Meet, G-Form and G-Drive. They argued that G-Classroom and G-Meet functioned as their main application for teaching. They put the teaching material in the G-Classroom and Used G-Meet to explain it. All participants shared the same opinion that they used G-Form if they gave a formative or summative test to the students. In the meantime, the importance of G-Drive is inevitable as whatever materials were put in G-Classroom as well as the recording result from G-Meet, were automatically stored in G-Drive. In addition, on some occasions, they also integrated the main applications with an additional application from Google that is YouTube.

“example I open google classroom and I embedded the link of google meet. For example, I would like to make a task ... to give a task to the students. I give them google form... so embedded to google classroom too” (Participant 05)

“Log in to google cclas and send a link via classroom to students. Then at the time of learning I was able to directly send the youtube link into the classroom. While learning is taking place, you can directly send the link in classroom. For example, a youtube link...then when I take an exam or there are some quizzes I usually use the google form to fill in the student so I just...so the student just enters the classroom and then clicks according to the schedule that is there” (Participant 06)
"Yes, for exams. Google meet, create a room in google classroom to collect assignments" (Participant 04)

Discussion

This research was conducted to bridge teachers for sharing their views on the use of G-Workspace for education. From the data analysis, the teachers of the participants revealed how G-workspace has assisted them for more than two years since the pandemic. Even though most of the participants did not know much about the functions of G-Workspace, they have been using the applications to help students to learn. Frankly speaking, the G-Workspace for education has purposes for collaboration between teachers and students as well as teachers and teachers, streamlining learning instruction and surely keeping the learning safe by working distantly ((support.google.com).

From the variety of applications, G-Classroom is the main application to run online classes. Interestingly, some other applications such as G-Mail, G-Meet, -Form, and -Drive are integrated and can be opened from inside G-Classroom. All participants agreed that they needed to integrate some applications to achieve their learning objectives. This finding is in line with Mobo's (2020) study who said that in the learning process, G-Meet is used as a place for a virtual live discussion, then G-Form is used for an assignment related to the discussion material and stored in G-Classroom.

Indeed, all the applications in G-Workspace for education have their own functions that can support the best distance learning. Some are unquestionably necessary to teach distantly as mentioned previously. However, due to a lack of knowledge of how to run the applications, some are rare or even never used. The unfavourite applications are G-Jamboard, G-Chat and G-Calendar. G-Chat is the newest application and they do not know the benefit of it. G-Calendar is less significant to be implemented as G-Classroom has a due date that can remind students and teachers from scheduled classrooms. G-Jamborad is also ineffective because it needs a special pen to operate it maximally. One of the participants tried to implement it in the classroom to promote collaborative learning but failed. The reality showed that not many students have tablet devices with a pen. Thus, the use of G-Jamboard is not effective. Even though, G-Jamboard can be the best application to promote collaborative learning as it can be used for sharing board and drawing between the students and the teacher (Basiaia, et.al., 2018 p,103)

Nonetheless, the presence of G-Workspace for education amidst the pandemic benefits teachers around the globe. Some of the main applications like G-Classroom and G-Meet are labelled as easy to use applications (Lindh, Nolin &
Is Face-to-Face Learning Better Than Online Learning? Teachers’ voice on the Use of Google Workspace

Hedvall, 2016). Most of the participants gained benefits from the applications. Some participants claimed that the use of integrated G-workspace could assist students to achieve learning outcomes. This finding has similarities with Awuah’s (2015) study who found that students’ performance improved after the use of Google applications. In addition, asynchronous applications also give a positive impact on the delivery of teaching material (Mobo, 2020).

Oppositely, some participants also claimed that it was not easy to supervise students virtually since students were forced to study virtually which promoted autonomous learning. This sudden change left students in confusion about where to start from as they never underwent distance learning before (Thach et al., 2021). From the data, some participants believed that face to face interaction was still the best way to teach the students. Zdraveski et.al. (2020) said that traditional face-to-face classrooms could never be fully replaced with distance learning.

Conclusion

Despite the fact that working from home is obligatory and distance learning is the only best way to continue learning progress, many teachers and students still experienced difficulties following this new way of learning. G-Workspace offers the best applications in education to work in one place and replace traditional learning. The benefits of the application were expected to reach the best practice. For instance, undertaking Integration can simplify the use of the applications, e.g. the use of G-Classroom can be integrated with G-Meet, -Form, -Drive, -Calendar, and -Docs. One of the main functions of the G-Workspace is carrying out collaborative learning. Collaborative work is possible in some applications such as G-Docs and G-Jamboard. These collaborative applications try to portray an offline collaboration in a remote way. The students and the teachers can work together while discussing at the same time even though they work distantly. Unfortunately, the result of the findings showed that remote work collaboration was not an option due to the lack of knowledge on how to use them as well as the incompatible device for maximal usage. Therefore, traditional learning is considered the favourite way of learning.
References

Awuah, L. J. (2015). Supporting 21st-Century Teaching and Learning: The Role of Google Apps for Education (GAFE). Journal of Instructional Research, 4, 12-22.

Basilia, G., Dgebuadze, M., Kantaria, M., & Chokhonelidze, G. (2020). Replacing the classic learning form at universities as an immediate response to the COVID-19 virus infection in Georgia. International Journal for Research in Applied Science and Engineering Technology, 8(3), 101-108.

Bušelić, M. (2012). Distance Learning–Concepts and Contributions. Oeconomica Jadertina, 2(1), 23-34.

Callaway, S. K. (2012). Implications of Online Learning: Measuring Student Satisfaction and Learning for Online and Traditional Students. Insights to a Changing World Journal, 2. Distance Education, 35(3), 345-359.

Google Support (2021) Retrieved from https://support.google.com/a/answer/7370133?hl=en

Gustiani, S. (2020). Students’ Motivation in Online Learning During Covid-19 Pandemic Era: A Case Study. HOLISTICS, 12(2).

Honeyman, M. & Miller, G. (1993) Agriculture Distance Education: A Valid Alternative for Higher Education? Proceedings of the 20th Annual National Agricultural Education Research Meeting (67 – 73)

Jang, H. W., & Kim, K. J. (2014). Use of Online Clinical Videos for Clinical Skills Training for Medical Students: Benefits and Challenges. BMC medical education, 14(1), 1-6.

Khojasteh, L., Karimian, Z., Nasiri, E., Sharifzadeh, S., & Farrokhi, M. R. (2021). E-learning-Based Medical Education during COVID19 Pandemic From Medical Students’ Viewpoints. Research Square. DOI:https://doi.org/10.21203/rs.3.rs-234844/v1

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook. Sage.

Mobo, D. F. D. (2021). Effectiveness Of Asynchronous Distance Learning Amidst The New Normal. International Journal on Orange Technologies, 2(12), 54-56.

Nguyen, T. (2015). The Effectiveness of Online learning: Beyond No Significant Difference and Future horizons. MERLOT Journal of Online Learning and Teaching, 11(2), 309-319.

Lindh, M., Nolin, J., & Hedvall, N. K. (2016). Pupils in The Clouds: Implementation of Google Apps for Education. First Monday

Owayid, A. M., & Uden, L. (2014, September). The usage of Google apps services in higher education. In International Workshop on Learning Technology for Education in Cloud (pp. 95-104). Springer, Cham.

Romero, E., Artal-Sevil, J., Mir, J., & Artacho, J. (2018, March). Improving Learning through G Suite for Education. Use of ‘Google Universe’Apps in the Classroom. In Proceedings of the 12th International Technology, Education and Development Conference, Valencia, Spain (pp. 5-7).

Sudarsana, I. K., Putra, I. B. M. A., Astawa, I. N. T., & Yogantara, I. W. L. (2019). The Use of Google Classroom in The Learning Process. In Journal of Physics: Conference Series (Vol. 1175, No.
Is Face-to-Face Learning Better Than Online Learning? Teachers’ voice on the Use of Google Workspace
1, p. 012165). IOP Publishing.

Thach, P., Lai, P., Nguyen, V., & Nguyen, H. (2021). Online Learning Amid Covid-19 Pandemic: Students’ Experience and Satisfaction. Journal of e-Learning and Knowledge Society, 17(1), 39-48.

Wang, Y. D. (2014). Building Student Trust in Online Learning Environment. Distance Education, 35(3), 345-359.

Yaumi, M. (2007). The Implementation of Distance Learning in Indonesian Higher Education. Lentera Pendidikan: Jurnal Ilmu Tarbiyah dan Keguruan, 10(2), 196-215.

Zdraveski, D., Janeska, M., Sotiroski, K., & Manceski, G. (2020). Student's Perceptions on Benefits and Challenges of Using Google Cloud-Based Tools for E-Learning. Proceedings of the 1st international conference Economic and Business Trends Shaping the Future. 1(1), 260-271.