



The Relation of Google Classroom Usage on Student's Learning Outcomes for Elementary School Students

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ABSTRAK

Pandemi Covid-19 menyebabkan berbagai perubahan dalam sistem pendidikan di Indonesia, terutama dalam penggunaan metode pembelajaran daring. Namun, implementasi teknologi baru merupakan tantangan tersendiri, terutama bagi orangtua dan guru siswa sekolah dasar kelas rendah. Salah satu bentuk teknologi yang diterapkan dalam pembelajaran daring adalah Google Classroom. Penelitian ini bertujuan untuk menganalisis hubungan penggunaan Google Classroom selama pandemi Covid-19 dan pengaruhnya terhadap proses dan hasil pembelajaran. Penelitian ini menggunakan metode penelitian kualitatif. Subjek penelitian ini adalah 33 orang tua siswa. Pengumpulan data dilakukan melalui survey dan wawancara terhadap orangtua dan guru. Data dianalisis secara kualitatif, melalui Technology Acceptance Model. Hasil analisis menunjukkan bahwa meskipun teknologi yang diterapkan diterima dengan baik, ada perbedaan antara nilai dan hasil evaluasi kinerja siswa dalam pertemuan tatap muka oleh guru. Learning loss dapat disebabkan oleh orangtua yang terlalu terlibat dalam proses pembelajaran daring, dan kesulitan guru untuk secara tepat menilai kinerja siswa. Implikasinya adalah bahwa metode pendidikan daring tidak efektif dan mungkin telah menyebabkan kerusakan terhadap sistem pendidikan secara umum.

ABSTRACT

The Covid-19 pandemic has caused various changes in the education system in Indonesia, especially in the use of online learning methods. However, implementing new technologies is challenging, especially for parents and teachers of lower-grade elementary school students. One form of technology that is applied in online learning is Google Classroom. This study aims to analyze the relationship between using Google Classroom during the Covid-19 pandemic and its effect on the learning process and outcomes. This study used qualitative research methods. The subjects of this study were 33 parents of students. Data was collected through surveys and interviews with parents and teachers. The data were analyzed qualitatively through the Technology Acceptance Model. The analysis results show that although the applied technology is well received, there is a difference between the scores and the results of evaluating student performance in face-to-face meetings with the teacher. Learning loss can be caused by parents who are too involved in the online learning process and teachers' difficulty adequately assessing student performance. The implication is that online education methods are ineffective and may have caused damage to the education system in general.

1. INTRODUCTION

Learning is an activity or teaching-learning activity. In it, there are two subjects, namely teachers and students. A teacher's primary task and responsibility are to manage to learn to be more effective (Susanti & Hamama Pitra, 2019; Winatha & Abubakar, 2018). Teachers must have awareness and an active role in the two learning subjects, namely the teacher as the initial initiator and director and providing guidance (Satria & Shahbana, 2020; Wijanarko, 2017). At the same time, students are objects who experience and are actively involved in obtaining self-change in teaching. Teaching itself is a systematic and systemic activity that consists of many components. Teachers must consider all aspects and strategies of teaching, designed systematically, conceptually but practically, realistically, and flexible, concerning the

problem of classroom management interactions, teaching, and assessment in teaching (Lin et al., 2019; Wijaya et al., 2019; Zetriuslita et al., 2020). However, at this time learning activities must be carried out online because of Covid-19. Covid-19 was declared as a pandemic by the World Health Organization on March 12, 2020. Soon after, on March 24, the Indonesian Ministry of Education and Culture issued a National Education Policy during the COVID-19 emergency period (Adawiyah et al., 2021; Jowsey et al., 2020; Laksmi & Suniasih, 2021). With that, the education system in Indonesia officially used the long-distance learning method. Face-to-face classes that require teachers and students to be in the same room were replaced with the freedom to learn from anywhere. This regulation was implemented at all levels, including elementary schools (Andarwulan et al., 2021; Ferri et al., 2020; Nugroho et al., 2021). As a result, more than 400 thousand schools from early education to universities were closed (find doc), and the education system relied on online learning methods.

Although long-distance learning is only recently implemented in Indonesia, it is not a new thing. Blended learning that combines long-distance and face-to-face learning, as well as an online learning method, has been implemented in other educational institutions (Ali, 2020; Bondarenko et al., 2019; Hapsari & Pamungkas, 2019). Previous research on this matter shows that the blended learning method is more effective and positively influences the students' learning outcomes (Hogan & Devi, 2019; Meulenbroeks, 2020; Seage & Türegün, 2020; Wulandari et al., 2020). Research on the fully online learning method mirrors the findings, noting the increase in independence and creativity, as well as learning outcomes (Choi et al., 2021; Yunitasari & Hanifah, 2020). That is due to the fact that students can access learning material from the internet, without being stuck to one location as they usually are in offline learning (Gaba et al., 2021). However, this switch to the online learning method does not only involve the teachers and students, but also the parents (Lau & Lee, 2021; Mansur, 2021). As the online learning method is new to the education system in Indonesia, most teachers also have to adapt to new technology (Hamdani & Priatna, 2020; Kristiantari, 2021). Earlier research done earlier in the implementation of online learning found that the majority of the teachers are not ready to carry out online learning (Andarwulan et al., 2021; Sindiani et al., 2020; Teräs et al., 2020). More recent research is still conflicted, as some found teachers are ready to use technology in online-learning systems, while many still found them less ready (Andarwulan et al., 2021; Wahyuni et al., 2021).

Both teachers and parents brought up several issues that resulted in the online learning system being more challenging, such as limited internet packages and gadgets (Andarwulan et al., 2021; Mailizar et al., 2020). Parents who were not usually involved in the children's learning activity now also have to take the teaching role as students learn from home (Novianti & Garzia, 2020; Syafa'ati et al., 2021; Yamamoto et al., 2016). Parental competence to aid the students in learning is also crucial to ensure that the students get the most out of the lessons without meeting their teachers in person (Syafa'ati et al., 2021). Economic sufficiency, as well as education sources, become an added challenge that especially impacts lower socioeconomic households (Andarwulan et al., 2021; Lase et al., 2021). Meanwhile, the online learning system continues to be implemented throughout the pandemic. Google Classroom, one of the long-distance education platforms, was found to both support education, but also cause less motivation for newer users (Bondarenko et al., 2019). As online learning requires new technology, teachers' participation in the application is crucial. The students also interacted more both with the technology, and their peers (Dahlstrom-Hakki et al., 2020; Gilmore & Halcomb, 2004). Active collaboration between the parents and school is beneficial to help the children, as lack of parental awareness is directly related to poor academic achievement (Ribeiro et al., 2021). To understand how the usage of Google Classroom has impacted education, this research dissects the issue using the Technology Acceptance Model. This study aims to analyze the relationship between the use of Google Classroom during the Covid-19 pandemic and its effect on the learning process and outcomes. With that in mind, researchers seek to learn how parents and teachers adapt to the online learning system. This research is also intended to understand how the implementation has impacted students' learning outcomes, through the perception of both the parents and teachers.

2. METHOD

This study was designed as qualitative research, which implemented both survey and interview in its process. Both methods were chosen as they were predicted to be able to give a clearer answer to the research objective. The subjects of this study are 33 parents, 3 of whom were interviewed, as well as 1 homeroom teacher from the first grade of a public elementary school in Cikarang, Bekasi. The research data are in the form of verbal and written statements that were collected in 2021. Written statements include surveys of 26 parents, whose children are in the same first grade class. There are 11 questions, 3 in the form

of multiple choices, and 8 in the form of scores of 1-5. Score of 1 reflects a very negative view towards the statement, while 5 is very positive. *Technology Acceptance Model* shown in [Figure 1](#).

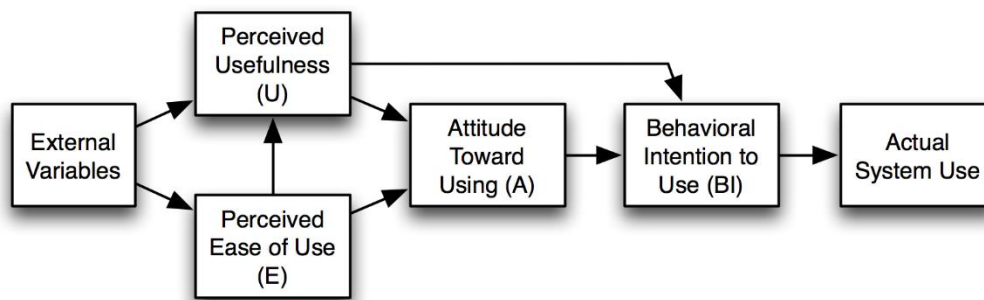


Figure 1. Technology Acceptance Model

The data was analyzed using the Technology Acceptance Model, which is used to understand factors that influence the usage of a new technology (Davis, 1985). Raw data was processed through systematically searching and compiling data obtained from interviews, and surveys by organizing the data into categories, synthesizing composes into patterns, choosing which ones are important and what will be studied, and making conclusions so that they are easily understood by themselves and others (Sugiyono, 2017). The research stages and data analysis should be carried out as a cycle instead of one phase (Miles et al., 2014). The stages include data collection, data condensation, data display, and conclusion drawing and verifying. Data in these stages should interact so the researchers can verify, find patterns, and remove unnecessary data. The three activities run as a cyclical process that runs before, during, and after data collection to ensure that the data presented in this paper is as concise yet rich as possible.

3. RESULT AND DISCUSSION

Result

Prior to its implementation, Google Classroom, as a learning platform integrated with other Google services, was perceived to have high ease of use. The platform only needs an email address, and although the students are young (around 7 years old), they can still access the lessons using the parents' emails. The homeroom teacher has also introduced the platform prior to implementing it in the class. However, it must be acknowledged that its implementation was forced both by the pandemic, and the government's regulation. Difference between parents' perception of Google Classroom's ease of use at the beginning and after a year shown in [Table 1](#).

Table 1. Difference Between Parents' Perception of Google Classroom's Ease of Use at the Beginning and After A Year

Description	Score (1 is low, 5 is high)				
	1	2	3	4	5
Google Classroom's ease of use (at the beginning)	5	11	6	1	3
Google Classroom's ease of use (after one year)	2	2	10	7	5

At first, the implementation of Google Classroom was challenging for most parents (16 out of 26). This may be attributed to how new the application was for the students, as well as the parents who have had to guide their children throughout the school year. However, after using the platform for almost a year, the graph shifts. Out of 26, 23 parents felt that it has become easier to use Google Classroom. Limited access to a stable internet connection became a challenge, although the school is located in the satellite city of Bekasi. There are also parents who have a hard time providing internet connections for the students due to economic restrictions. The survey shows that 5 out of 26 parents are not able to provide an internet connection at home, meaning the students have to go out to find Wi-Fi. Even so, all the students were able to access Google Classroom through their handphones, as the platform does not have to be accessed through a personal computer. For the lessons, the teacher was also able to easily post photos of textbooks and PowerPoint presentations. Voice notes and videos were also used, although teachers may also use other platforms such as WhatsApp to distribute the materials.

The main concern for parents in this learning system is the limited interaction between the teachers and the students. One of the parents stated in her interview that the interactions are often limited to receiving instructions, assignments, and sending the assignments back to the teachers. Thus, children felt that school was more frustrating. Sometimes the students even cry due to the pressure and feeling that the school experience is limited to tasks, which can be up to 5 tasks every week. Students are also reported to be less enthusiastic and excited about joining the classes compared to when they are in the face-to-face classes. The homeroom teacher agreed as she noticed the gap in the students' behavior during face-to-face classes and online learning. Students were more excited to learn in school, both due to having a group of friends with whom they can interact, and also a sense of competition among their peers. Parents' perception towards the students' learning development, outcome, and their involvement in the learning activities shown in Table 2.

Table 2. Parents' Perception Towards the Students' Learning Development, Outcome, and Their Involvement in the Learning Activities

Description	Score (1 is low, 5 is high)				
	1	2	3	4	5
Assignments help my child/children's learning development	5	11	6	1	3
There is a significant change in my child/children's learning outcome	2	1	11	9	3
I am satisfied with my child/children's learning outcome	1	1	3	1	8
I am involved in my child/children's online learning activities	0	0	1	3	2

Despite the challenges, most parents believe that the tasks have supported their children's development. Both the parents and the homeroom teacher noticed that the online learning method has greatly impacted the students' abilities. Students who are shy usually feel more comfortable at home, and thus have been able to achieve more through online learning compared to face-to-face lessons. However, there may be another reason why the students have higher achievements through online learning compared to in-person classes. Through the internet, it is also possible for the students to get help from various sources when doing their assignments, which makes it more difficult to judge the real ability of the students. The homeroom teacher also noted that in online learning activities, parents' involvement can be too high. In some cases, there is a jarring difference between how the students perform in online classes compared to their performance in face-to-face lessons. That may be due to how parents would help their children work on tasks that the students are supposed to work on their own.

As parents could feel impatient when helping their children learn, it may cause them to be too involved in doing the tasks given by the teachers. Most times, the parents either partly, or even fully work on their children's assignments. The lack of time to properly guide their children, as well as limited access to the gadgets (some students have to share one gadget with their siblings), add pressure on both the students and the parents. This creates a false image of the students' ability, which would make the scoring unreliable at times. That resulted in an untracked learning loss, which would not be discovered until the students come to the school for a face-to-face lesson. According to the homeroom teacher, online learning through Google Classroom has caused the assessment of children's learning outcomes to become less objective and less clear.

Discussion

In general, the main problem of an online learning system does not come from the platform that is used in the process (Dombrowski et al., 2018; Simanjuntak & Budi, 2018). This research shows that while the ease of use of Google Classroom increases over time, challenges to the online learning process persist. Meanwhile, the experience of the online learning process may vary according to geographical location and socioeconomic levels, as research on online learning has shown that students with lower socioeconomic households struggle more with online learning, even more so in rural areas (Andarwulan et al., 2021; Hafidz et al., 2020). Internet connection, which was never demanded in the face-to-face learning process, is now an obligation. However, one out of five parents in this research was not able to provide internet access in their homes. That condition is not uncommon, with previous research showing the same problem in their respective research locations (Hafidz et al., 2020; Oyedotun, 2020; Wan Hassan et al., 2020; Widikasih et al., 2021).

Meanwhile, research done in higher education levels found that the online learning method has the support of everyone involved, citing increased independence (Hanik, 2020; Patricia, 2020; Sangsawang, 2020). Yet, in lower education levels, online learning methods seem to do the opposite. Our research found that online learning increases the students' dependence, albeit unintentionally. Research done at the elementary school level found that students are less comfortable with the online learning process (Hamdani

& Priatna, 2020; Widikasih et al., 2021). Children generally see the home as a place to play and rest instead of study, making the shift to online learning more challenging for them, and their parents who need to put more effort into making their children learn (Novianti & Garzia, 2020).

As we found, first-graders are not usually familiar with the technology, they rely on their parents and/or siblings throughout their lessons, which adds another factor to the students' achievements. Home education resources, as well as parents' level of education, digital competence, and involvement with the school, play a role in determining the achievement of the students (Di Pietro et al., 2020). If done well, parental involvement in the children's education correlates directly with the students' achievements (Novianti & Garzia, 2020; Nugroho et al., 2021). Parents can get too involved in the students' learning process. Some research also found that parents would not stop at guiding their children through the lessons, but also work on assignments and even tests (Khurriyati et al., 2021; Lase et al., 2021).

Many factors may cause parents' over-involvement in the students' learning process. In cases of students with siblings, they may need to share the gadget, causing less time available to learn (Hilna et al., 2020; Lase et al., 2021; Tan, 2021). This research also found that parents may cite impatience, both due to their own already crammed schedule as well as the perception that their children are lazy, which are also discovered in previous research, to be the reasons why parents take over the students' tasks (Khurriyati et al., 2021; Lase et al., 2021). A similar issue is also found in this research, to a point that the teacher noted the gap between the students' performance in online and offline classes. Online learning, at the end, has made it more difficult for teachers to assess their students properly (Erawati et al., 2021).

In light of those findings, learning loss has become a real cause of worry for the educational system (Donnelly & Patrinos, 2021; Engzell et al., 2021). Since the online learning method in Indonesia has been ongoing for two years, that is also two years of possibly massive learning loss due to limited internet infrastructure, economic constraints, and parental inability to guide their children at home. Children's learning motivation and abilities have continued to decline (Khurriyati et al., 2021; Lase et al., 2021). Thus, a multi-pronged approach needs to be done, targeting different issues at the same time to ensure that the online learning method will be better. The government, specifically the Education, Culture, Research, and Technology should act strongly through their branches at the local level to ensure that education can be accessed by students in the lower socioeconomic level. Meanwhile, the school should boost the relationship between them and the students' parents, to help the parents find a more effective way to assist their children in their lessons. The primary role of the parents is still needed, but only through clear communication between students and teachers, students and parents, as well as parents and teachers, can an effective online learning method be realized. Looking back at previous and similar research, the researchers found that there are conflicting results based on the level of education, as well as their socioeconomic background. Meanwhile due to limited resources, this research was also limited in its scope, where only the members of one class was researched. Thus, further research on this matter is necessary to paint a more complete picture of the educational system in Indonesia, especially regarding the learning loss that was caused by the pause in offline learning during the two years of Covid-19 pandemic.

4. CONCLUSION

This research found that Google Classroom in and of itself is only a platform used in online learning methods. It serves its purposes only with a slight hitch at the beginning as parents learn how to use the platform. However, the issues come from external factors such as limited internet access, a limited number of gadgets, as well as the ineffective guidance of the parents; all of which may contribute to learning loss.

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