The Role of Google Classroom Application in Improving High School Student Achievement

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ABSTRACT

Achievement is the highest achievement of a series of educational processes taken by students by relying on their intellectual and spiritual abilities. To improve student achievement, teachers can utilize existing technology, including the use of Google Classroom applications. The purpose of this study is to determine the role of the Google Classroom application in improving the achievement of high school students. The research method used is descriptive quantitative by conducting field research and data collection techniques by conducting in-depth interviews where researchers ask several questions to class teachers related to existing subjects, learning methods used, then the function of Google Classroom in the learning process, and things that can improve student achievement. The results of this case study explain that the use of Google Classroom applications can improve student achievement, this matter can be seen from the percentage count taken after conducting research. From the research conducted, it can be concluded that this application can be used as a medium for sending the results of assignments given by educators so that it can help improve student achievement. The limitation in this study is that researchers only know the role of Google Classroom applications in improving student achievement in only one school. Researchers hope that further research can conduct more in-depth research related to the role of Google Classroom applications in improving student achievement.

Keywords: *Achievement, Improving, Role*

INTRODUCTION

The latest technological developments, especially information technology, in the last year have increased significantly. Namely in the field of hardware, software and other infrastructure such as telecommunications signals that support the development of reliable information systems (Fleming et al., 2020; Viriyasitavat et al., 2019). Introduced software and hardware are replaced by new devices, which have better power and skills (Li et al., 2018; Rajapathirana & Hui, 2018). This fact has both positive and negative effects on those who use it. When using technology, each person must be able to adjust and understand its use so that gaps in social and personal life do not occur (Jallow et al., 2021; Pan et al., 2019). The emergence of new technology causes things to respond to users in the form of approval and rejection. But the impact of these technologies on the economy, education and all aspects can be avoided (Hodder, 2020; Oztemel & Gursev, 2020; Sun et al., 2021). Therefore, to know that technology is accepted, the proliferation of the internet facilitates the learning process to be more accessible.

The advancement of information technology in this day and age is growing, characterized by the development of digital systems, and artificial and virtual intelligence (Ahmed & Mahmood, 2019; de Reuver et al., 2018; Topol, 2019). With the development of technology, it has become a good influence for education in the era of the revolution (Alzahrani et al., 2021; Ivanov et al., 2019; Masrifah & Sudira, 2020). Education 4.0 is a needs-oriented event where humans and machines work together to find answers, and solve problems (Buasuwan, 2018; Ciolacu et al., 2018, p. 0; Hariharasudan & Kot, 2018). Basically, education is a way to support someone to grow the ability of learners. Therefore, a person can undergo changes that exist (Astalini et al., 2019; Mourtzis, 2018). Education aims to alleviate human life, foster and cultivate morals, weigh right and wrong, increase human knowledge, recognize self-potential, and be useful in social life (Alqahtani & Rajkhan, 2020; Esfandiar et al., 2019; Salsabila et al., 2021). Education encounters many obstacles and failures, including the low quality of education in the country. Therefore, the existence of failures is an obstacle for school education to develop the quality of education in Indonesia.

The educational environment was rocked by corona disease in early 2020, known as the Covid-19 pandemic (Bezerra, 2020). Therefore, the Indonesian government created a regulation to prevent the spread of the Covid-19 virus, i.e. face-to-face classes have been the mainstream until now, but we must change the way we learn online (network) learning at all levels of education to break the chain (Dwivedi et al., 2020; Goel et al., 2021; Jung et al., 2020; McGuirk et al., 2021). The spread of Corona Virus is very useful because education in the era of the Industrial Revolution 4.0, brings people closer to digital technology to facilitate the transformation phase of traditional learning into online learning (Stockwell et al., 2021). The Covid-19 pandemic has created the need to take precautionary measures in schools, particularly the red zones of Covid-19 spread. Inviting study groups and schools, such as High

Schools, to dismiss their students (Chu et al., 2020; Yudhira, 2021). The problem causes the regular educator's teaching and learning system to be disrupted Classroom instruction disrupts the learning process (Alonso-García et al., 2021; Juliantine et al., 2022). One of the ways that teachers do is by giving assignments to students through Google Classroom media.

Google Classroom is a custom-made combined learning media and application developed by Google school (Handayani et al., 2021; Hasan, 2020). Educators and learners can use this app on computers or mobile phones (Widiatsih et al., 2020). *Google Classroom* aims to help students in all areas of education to help them gain or overcome learning disabilities, share, and create homework lessons without going to class. (Hapsari & Pamungkas, 2019). *Google Classroom* was created to help teachers create and deliver assignments that include time-saving features like automatic document copying for each student. Google Classroom allows educators to create storage files for exercises and students can remain entirely intact generally. (Putra et al., 2022, p. 19). Students can check upcoming exercises on the assignment page. Learners can start working with a single press. Educators can immediately check for students who are not reading, complete exercises, provide information and provide assessments from the application.

The usefulness of the Google Classroom application as a learning media is mandatory for educators and learners to know the benefits, most importantly regarding learning success (Zailani et al., 2020). The rapid development of information technology has changed the paradigm of education it can be easily obtained without the flow of information technology and knowledge of space and time limits. Organizations are no longer the source of knowledge but can be obtained from unofficial institutions. In the era of globalization, the use of information technology is very helpful and promotes activities. Google Classroom is the hope of all educators and learners to be a solution for this distance learning. This article will focus on the role of Google Classroom application in improving the achievement of Senior High School students.

Based on a significant previous case study on this study conducted by Hasdelyati in 2020 entitled Improving Mathematics Learning Outcomes Using the Google Classroom Application in Straight Line Equation Material in Class VIII.1 at SMP Negeri 18 Bengkulu City in his article explains the positive impact of the online learning process using the Google Classroom application, as a result it can affect the learning gains of students. Another research was also conducted by Suharyadi in 2021 which is entitled The impact of the Google Classroom application and Learning Motivation on Student Achievement during the Covid-19 Pandemic at SMK Negeri 1 Gombong which explains the development of technology and information in the current era is growing rapidly to the point that the Google Classroom application has a positive influence on student achievement and educators can also optimize the use of this media in learning.

While other studies that are relevant to this study are explained by (Hilmi et al.,

2022) The title The Effect of Using Google Classroom on the Learning Outcomes of Class X Students at SMK Lab School Unesa which explains that the use of this application provides good results because it can improve student learning outcomes so that student achievement also increases. This application makes it very easy for educators to deliver learning materials and give assignments to students, with a short time without having to wait a long time. The advantages of using this application are 1) very easy to use, 2) save time, 3) easily accessible anywhere and anytime, 4) free of charge, to open it only through gmail, without having to download anything else, 5) mobile friendly, this application is made to be responsive and easy to use via handpone.

This research was conducted to be able to find out how the effectiveness of using the Google Classrom application as a learning media in improving the achievement of high school students, and to be able to find out the extent of the student's goal to understand and master the Google Classroom media, to be able to see the students are able to the extent of knowledge of learning technology that exists today. Where students who do not know anything about technology can operate and run existing technology to the fullest. This research also has the aim of finding out the obstacles, weaknesses, shortcomings that students feel in using this application. This research is expected to be continued by further researchers in the hope of conducting more in-depth research related to the role of Google classroom applications in improving student achievement. Related to the difficulties experienced by students in utilizing Google classroom, therefore the researcher will explain the extent to which the role of Google classroom application as a learning media in improving the achievement of high school students.

RESEARCH METHODOLOGY

In this study, the method used was descriptive qualitative with several activities carried out surveying students and teachers in several high schools. The interview model was conducted by the researcher because it was in line with the research objectives to find the utilization of the Google classroom application as a learning media to improve the achievement of high school students, as well as to find out the benefits of using this media in an online teaching and learning process carried out by teaching staff (Zulkifli et al., 2020). While the activities carried out with in-depth interviews aim to enable researchers to process complete data. In order to avoid data and information errors or lack of resources when dealing with references and can see the extent of the progress of several high schools in using Google classroom for online learning (Kansal et al., 2021). The location where the research was conducted in several high schools online or filling in the Google Form questionnaire link distributed by the researcher.

The information received from this research was obtained from students and educators in various high schools who filled out the questionnaire link that was distributed. Researchers used this technique to facilitate students and educators as research sources. Some of the results of the research obtained came from students and

educators after filling out the Google Form questionnaire link that had been distributed by the researcher beforehand (Ruíz-Roso et al., 2020). It can be seen from the questionnaires that have been filled in and answered by students and educators from different high schools. For more actual data and information, interviews were conducted directly with some students.

The survey was conducted to collect data by making a questionnaire on google form beforehand with various questions about the use of the google classroom application as a learning media to improve the achievement of high school students. The researcher then distributed the questionnaire link (Islam et al., 2020). The content of the question is inseparable from the utilization of the Google classroom application as a learning media to improve the achievement of high school participants. After the researcher gets the results from the survey, the research then interviews some students in depth about Google classroom as an online learning media to obtain valid data.

The results of the research in the form of data collected are presented with quantitative methods by presenting using information tables obtained by removing the percentage of each question given by researchers in the google form questionnaire and filled in by several students and teachers (Rutkove et al., 2019). The percentage obtained can be presented through the researcher's thoughts in a tabular model after which it is presented using several opinions of previous researchers and opinions of previous experts with very relevant thoughts. In the discussion the researcher describes his opinion and is developed with the conclusions obtained from previous researchers.

RESULT AND DISCUSSION

After the researchers conducted a survey through filling out a google form questionnaire to students at the Batusangkar area high school that had been filled in. All questions needed in the research have been made by researchers in the questionnaire in the questionnaire distributed generally all students know and know about google classroom and understand its use in the learning process. Many of the students have been able to operate this google classroom application as a means of online teaching and learning in high school. Google classroom is seen and considered very appropriate for use by students and students in the context of online learning in this pandemic condition. There are so many benefits from this application, one of which is motivating students in a lesson and making it easier for students to learn online. Every application and media has advantages and disadvantages including this application, where the advantages do not take up a lot of storage space, can be opened anytime and anywhere. In addition to the advantages, there are disadvantages that exist in this application must be accessed with a good internet network, it is difficult to discuss. This application motivates students to be more active and diligent when learning.

Table 1. Results of research conducted on students who are in different high schools around Batusangkar, SMA N 1 Rambatan, SMA N 3 Batusangkar, SMA N 2 Batusangkar

No.	Questions asked	Answers obtained	Description
1.	Do you know what google classroom is?	(percentage)	all teachers and students are very aware of this google classroom application.
2.	Do you understand the use of this application?	100% very knowledgeable	many high school teachers and students understand the use of this application.
3.	In your opinion, does this application provide benefits to the learning and teaching process?	100% understand	All teachers and students from various high schools in Batusangkar who have filled out the questionnaire link say that Google Classroom provides benefits to the learning process such as saving time and energy, making it easier for teachers to distribute assignments to students.
4.	Do you agree, if this application has advantages?	81.8% very useful	The number of teachers and students who say that there are benefits to this google classroom, then, this application has advantages such as being able to access information anywhere and anytime, reducing student boredom in learning because it uses a new learning system.
5.	Do you agree, if this application has shortcomings?	18.2% useful	Students and teachers who filled out the questionnaire agreed that this application has shortcomings such as having to have a lot of kupta, with a sophisticated cellphone.
6.	Is this application useful for mothers / fathers and colleagues during the Covid-19 pandemic?	72.7% strongly agree	all teachers and students in general feel the benefits of the google classroom application as an online learning media at upper

			secondary level educational institutions is very useful for breaking the spread of the Covid-19 virus that is infected in students and teachers.
7.	What are the obstacles that are felt when using the application during the teaching and learning process?	27.3% agree	The percentage results show that the obstacles felt in online learning have a lot and are felt, such as: 1. Difficulty understanding the material provided by the teacher 2. Constraints on networks and other devices 3. There is no discussion column which makes it difficult for students to ask questions 4.
8.	Does using this classroom media, focus on following lessons using this application?	72.7% strongly agree	Not monitored by the teacher students who follow the learning
9.	Can the google classroom application increase the enthusiasm of all colleagues?	27.3% agree	Most students say the use of the google classroom application in high school is focused, some are less focused and there are also some who are not focused.
10.	After using this application, has the achievement of your students improved from before?	90.9% very useful	The results of the percentage of google classroom research can increase the enthusiasm for learning of these students

The purpose of this table is to collect data obtained from several teachers and students of various senior high schools who have filled out the questionnaire distributed by the researcher. After the link was distributed to students in various schools, teachers and students filled in the anglet, as is the case with the table above. The explanation of the table above is, all teachers and students are very aware of this Google classroom application. Then many high school teachers and students understand the use of this application. All teachers and students from various high schools in Batusangkar who

have filled out the questionnaire link say that this google classroom provides benefits to the learning process such as saving time and energy, making it easier for teachers to distribute assignments to students.

With the benefits of Google Classroom, this application has advantages such as being able to access information anywhere and anytime, reducing student boredom in learning because it uses a new learning system. Students and teachers who filled out the questionnaire agreed that this application has shortcomings such as having to have a lot of kupta, with a sophisticated cellphone. Judging from the results of the research, all teachers and students generally feel the benefits of the Google classroom application as an online learning media in high schools is very useful for breaking the spread of the Covid-19 virus that is infected in students and teachers. Then behind the utilization of Google classroom there are obstacles and obstacles faced by teachers and students, from the percentage results show that the obstacles felt in online learning have a lot and are felt, such as:

1. The difficulty of students in understanding the material provided by the teacher
2. Students are constrained by the network and other devices
3. The unavailability of a discussion column makes it difficult for students to ask questions 4.
4. Unmonitored by the teacher of students who follow the learning 4.

Then the results of the survey conducted regarding the Google classroom application show that the use of this application for online learning media exposes 34.6% focus 45.5% less focus 19.8% not focused in learning.

Google Classroom is an app developed by Google that integrates with Drive, G-mail, and more. It enables learning, material provision, test management and grading. This makes learning in Google Classroom more active and productive. Google Classroom is a free downloadable web service from Google that allows the distribution, collection and transmission of work from students to teachers for educational activities or learning processes. A good network is required to access the google classroom application. Google Classroom (google class) is a kind of device that provides a classroom atmosphere and atmosphere in the teaching and learning process.evaluate assignments. From this it can be concluded that the Google Classroom application is a derivative of Google and has certain features to make distance learning more effective and conducive. This application makes the online learning atmosphere feel like a real learning space.

A policy issued by the Indonesian government through the Ministry of Education and Culture is to conduct educational activities and all types of work from home. This regulation explicitly mandates the implementation of distance learning. To enforce this policy, all educational institutions implement and optimize online-based teaching and learning facilities. Among the online learning applications that can be utilized is Google Classroom. In general, all existing educational institutions choose to use this application as a means or medium of learning during the Covid-19 pandemic. Therefore, teachers

and students must be willing to accept and agree to the rules or guidelines that have been set. Basically, whether we like it or not, online learning still happens with Google Classroom and other online learning media.

Basically, the Google Classroom app is already known by teachers. However, not all teachers understand how to use it. Therefore, training to understand and master the application in the teaching and learning process is needed to improve teachers' understanding. Teachers must continue to learn and improve their knowledge of technology and attend training related to the Google Classroom application. Because if teachers want students to understand something, teachers must first seek and try to understand it. Google Classroom is part of the evolution of technology, so even though online learning is no longer common, teachers still need to learn and understand the online learning process.

Basically, learning is not just for students. Everyone should be interested. The same applies when learning to understand technology and online-based learning media. Teachers must be ready to make a big breakthrough in the world of education. The training attended by educators to understand the Google Classroom application must be conducted by experts who are truly experts in their fields. Training activities should also be scheduled regularly, and different applications and technologies should be learned at each meeting. In this way, teachers' ability to teach using online-based learning media such as Google Classroom is enhanced and further developed.

Educators and teachers are not the only ones who need to understand how to use this Google Classroom application in their learning process. Students who are the subject of education also need to understand the learning media they use in their teaching and learning activities. Many students admit that they are bored following online learning and do not understand it. One of the factors is the lack of parental support for online learning. Parents also need to understand and master technology so that during online learning, students can regain their enthusiasm for learning and feel happy when completing tasks. Familiarity, motivation for differences, and willingness to work are factors that encourage students to embrace using Google Classroom for learning. Students need understanding to comprehend the material that teachers share through Google Classroom. If students do not understand this application, their learning process using Google Classroom will be hindered and limited. For students to understand this, parents must accompany them when using this online learning medium. Teachers and parents should work together to ensure that learning objectives can be achieved remotely. Teachers should also ensure that all students understand how to use Google Classroom.

Of course, using Google Classroom as an online-based learning media is very useful and suitable for teaching even in high school. The main reason for choosing Google Classroom as learning media is the simplicity and usability of the distance learning system. Google Classroom has several advantages that make teachers happy and choose it over other online-based learning apps and media. Google Classroom is more efficient as it takes less time to access and open materials distributed by teachers.

It also allows teachers to share and complete assignments easily, so teachers don't waste time grading each assignment they receive. The Google Classroom application also provides a way or access to discuss remotely or online through the discussion column available in this application feature.

The Google Classroom app is free to download, easy to access, ad-free and secure. The ease of access to Google Classroom and the ease of communication and interaction are the benefits that students feel from Google Classroom. Google Classroom is a vehicle and method for learning ICT. This online learning media is useful for distributing or distributing assignments from teachers to students, categorizing assigned tasks, and crediting assignments submitted by students. The increasing use of Google Classroom in the learning process will affect the development of information and communication technology. This is because it takes place online and you can invite students to sit directly in your online space and include all students. Develop the skills to control technology easily by not limiting yourself to a small space and receive learning materials. The benefits of using Google Classroom as an online-based learning medium are numerous. Google Classroom is space-agnostic, simplifying the online learning process.

The Google Classroom application also provides more stimulation and encouragement to students in teaching and learning activities. The application requires educators to create a learning atmosphere that saves you time and energy. Students who were previously bored and lacking in offline or face-to-face learning systems will be more motivated to learn with this Google Classroom application. It cannot be denied that students, especially junior high school students, are always interested in new things. Of course, behind the many benefits of using the Google Classroom application, there are also several disadvantages and weaknesses. The main obstacle to learning with online learning media is network or signal limitations. Not all locations are accessible via the Internet. The use of online-based learning media such as Google Classroom reduces face-to-face or face-to-face interactions between teachers and students. Mainly because students studying online find it difficult to study and play during class. Differences in the intelligence and intelligence of each student also become obstacles to the success of online learning activities and the achievement of educational visions and goals.

Various cultural factors also hinder the success of online learning activities.

There are many shortcomings and weaknesses found in the Google Classroom application and researchers can draw conclusions from the results of the research conducted and find their own errors. The disadvantage of Google Classroom is that it cannot be accessed and used if your cellphone, laptop or computer has a bad internet network. As a result, the online learning process is hampered and goals are not achieved. In the Google Classroom application, there is only one discussion column where you can send messages and comments during class in chat format, making it difficult if student input is too long and disrupts the discussion process. When a new message arrives in the class discussion column, it cannot be sent directly to the student's

phone if the student remains on the page. Therefore, students must first exit the application in order to access and enter their latest comments and messages. Finally, in order for Google Classroom to send and receive assignments in the form of files, videos, photos, etc., your phone must have at least 4 GB of free space.

Although there are many pros and cons to using Google Classroom as an online learning medium in high school, this application has had a huge impact on both students and educators. Google Classroom is an application specifically developed to be used during the teaching and learning system to foster and encourage students' enthusiasm for learning, thereby improving their academic performance and intellectual intelligence. The Google Classroom application makes teaching and learning activities that were previously done manually more interesting and enjoyable. The development of this application is still very much needed to further increase the benefits of its use as well as to cover and mitigate some of the shortcomings found in Google Classroom.

CONCLUSION

The role of Google Classroom as an online learning medium in high schools is in line with the aims and desires of researchers regarding the demands made by the public on the government in order to overcome the invisible disease Covid-19 virus which is currently spreading. This application is simply already known to the public. lots of students from various regions and teaching staff from all over the country, especially high schools. Google classroom has the benefit of making it easier for students to interact with their lecturers in the learning process so that learning can run conducively. And Google Classroom also has obvious shortcomings when used, it requires a lot of quota to access the material, assigned assignments and a strong network, so students experience difficulties and complain because their pocket money runs out. Therefore, the role of the Google Classroom application as a learning medium in improving high school student achievement is in line with expectations.

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