

# The Impact of Technology on Student Achievement in Schools : The Effect of Classroom

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**Abstract.** This study emphasizes the use of learning by using classroom has a positive impact can be seen from student learning outcomes which are increasing every day through assignments and quizzes. Students' perceptions of subjects conducted online using the classroom application, namely students feel happy using classroom because it is easy and the teacher/educator is not burdensome by giving a lot of assignments, classroom is flexible, which is easy to access anywhere and anytime, constrained internet access from the absence of a data network or smartphone that is used to support all students for the implementation of e-learning learning. The research method used is the literature study method is a series of activities related to the methods of collecting library data, reading and taking notes, and managing research materials.

**Keywords:** Classroom, Impact Technology, online learning media.

## 1 Introduction

In essence, learning is a process to regulate and organize the entire environment around students so that it can grow and encourage students to carry out the learning process. There are two types of learning, namely conventional and online learning[1]. According to Djamarah, conventional learning methods are traditional learning methods or also known as the lecture method, because this method has long been used as an oral communication tool between teachers and students in the learning and learning process. In history learning the conventional method is characterized by lectures accompanied by explanations and division of tasks and exercises.

While online learning is an abbreviation of "in the network" as a substitute for the word online that we often use in relation to internet technology. Along with the development of information and communication technology, a new learning system has emerged, namely online learning. Online learning or online learning is distance learning that uses the internet and several technologies as the media used[2].

To support online learning, a social media platform is needed. Social media is one of the media where users can find information, communicate with each other and make friends online[3]. As is known, there are various types of social media, one of which is Classroom. Classroom enables teaching and learning to be more productive and meaningful by simplifying assignments, increasing collaboration, and fostering communication. Teachers can create classes, assign assignments, send feedback, and see everything in one place[4].

There are quite a number of educational problems in Indonesia, ranging from curriculum, quality, competence, and even leadership competencies, both at the top and bottom levels[5]. Various cases of complaints occurred in the field, both school leaders and educators who regretted the dimensions of leadership such as management, discipline, bureaucracy and administration which were in disarray. Then, no less important, the issue of leadership in schools also plays a role in coloring the face of the implementation of the world of education and widening the gaps and internal conflicts of educators[6].

One solution that can be taken by implementing an online learning system is by utilizing the classroom application. Classroom is a free web service, developed by Google for schools, that aims to simplify, create, distribute, and grade assignments without having to meet face-to-face. The main goal of classroom is to streamline the process of sharing files between teachers and students[7].

There are several requirements that must be met in order to support the teaching and learning process using the classroom application. First, every student and educator is required to have access to a good internet network. Second, the availability of the use of digital-based learning media in every school. Third, educators and students have the ability to use and master, as well as keep abreast of developments in information and communication technology. This application is still rare, not even known by most teachers in Indonesia. This application service is assumed to be an alternative in answering the problems and challenges of learning in the classroom. Such as the limited time available in class, lack of time to discuss in reviewing subject matter, and limited time to correct student assignments[8].

Impact of students learning by using progress technology is very good, because learning to use classroom learning media makes students more enthusiastic in carrying out the learning process, students don't get bored easily and feel more interested. If the teacher carries out the learning process by utilizing current technological advances, students can also more easily understand the learning material. This is done so that online learning using the classroom application can produce effective learning outcomes for students. Through the classroom application, it is assumed that learning objectives will be more easily realized and full of meaning. Therefore, the use of this classroom actually makes it easier for teachers to manage learning and convey information precisely and accurately to students[9].

## **2 Research Method**

The methodology used in this study is a systematic literature review using references. Systematic literature review is the process of identifying, evaluating, and interpreting studies that are relevant to a particular research question, topic, or phenomenon. The steps and stages of the research are as follows:

- a. The process of searching for literature relevant to the objectives and research questions was carried out on 3 journal databases and research articles, namely Scopus, ScienceDirect and ResearchGate.
- b. After the process of searching and collecting (downloading) journals and articles, the next step is to select literature that fits the criteria.  
These criteria are:
  - a. The object of research is the state, government (central and regional), as well as organizations, institutions and institutions under the government.
  - b. The research describes the use of e-government in its implementation and effectiveness.
  - c. The research uses international language and is peer-reviewed. After selecting based on the above criteria, it is obtained as much literature as has been used now.

### 3 Result and Discussion

The success of learning in a course is determined by several aspects including the ability of teachers/educators to design and plan strategies, media, methods and teaching materials in order to achieve an interactive and communicative learning. Research related to the use of the use of classroom has previously existed as discussed in the introduction and the result is classroom. In the current study, the results are not much different because they both use classroom as a means of learning activities. These results were obtained through the process of observation (observation) and interviews with students and literature review.

#### **Definition Of Technology Education**

Based on the history of its development, the term educational technology began to be used since 1963, and was officially pledged by the Association of Educational and Communication Technology (AECT) since 1977, although sometimes there is overlapping the use of the term with learning technology. However, these two terms are still used in accordance with the considerations of the users[5]. Finn (1965) revealed that in England and Canada the term educational technology is more commonly used, while in the United States the term learning technology is widely used. But sometimes the two terms are used simultaneously in the same activity. And recently the concept has developed that learning technology is more suitable for use in the context of teaching[10].

Educational technology is now very far developed. With the rapid development of technology, the learning process is faster and more effective. We still remember that getting a book in the form of a book is very difficult, especially in remote places. They can only rely on their teachers as the sole source of material. Unlike now, technological developments have brought many changes to the world of education. Call it technology that plays an important role is internet service. Just type a word related to the information we want to find on a web search engine, then we will quickly get that information[11].

Educational Technology is a complex integrated process that includes people, procedures, ideas, tools and organizations to analyze problems and design, implement, assess and manage problem solving in all aspects of human learning. The formal object of educational technology is solving human learning problems. This is done by analyzing the problem first, then implementing, assessing and managing the solution to the problem [12]. The main purpose of learning technology is to solve problems in learning or facilitate learning to improve the resulting performance.

#### **Classroom**

Classroom enables teaching and learning to be more productive and meaningful by simplifying assignments, increasing collaboration, and fostering communication. Teachers can create classes, assign assignments, send feedback, and see everything in one place. Schools and nonprofits get Classroom as a core service of G Suite for Education and G Suite for Nonprofits for free. Anyone with a personal Google account can also use Classroom for free[13].

#### **Classroom Function**

Classroom is a free web-based tool developed by Google. It was introduced on August 12 in 2014. This app is used by teachers and students, to share files between them[14]. In Classroom, teachers can create assignments for students, and can also collect assignments from them. Both teachers and students can work paperless in this application. Here are some things you can do while studying online with Classroom:

- a. Sharing course material/syllabus
- b. Assign/submit assignments
- c. Hold an interactive Q&A exam/quiz

d. View upcoming tasks via Google Calendar

In addition to the various benefits above, Classroom is suitable as an option for online learning because this platform is free, can be reached by anyone who uses a smartphone, and is relatively safe.

**Classroom Features**

Classroom can be set up easily. Teachers can set up classes and invite students and teaching assistants. On the Classwork page, they can share information—assignments, questions, and materials. With Classroom, teachers can save time and paper. They can create classes, assign assignments, communicate, and do management, all in one place. Classroom also offers better management. Students can view assignments on the Assignments page, in the class stream, or in the class calendar. All class materials are automatically saved in the Google Drive folder[15].

In addition, Classroom allows more effective communication flows between teachers and students or between students. Teachers can create assignments, send announcements, and start class discussions in real time. Students can share materials with each other and interact in a class stream or via email. Teachers can also quickly see who has and who hasn't completed an assignment, and instantly provides real-time grades and feedback. Equally important, affordable and secure Classroom is provided free of charge to schools, nonprofits, and individuals and contains no ads and never uses user content or student data for advertising purposes[16].

**Classroom Impact on Students**

Classroom-assisted online learning is very important for teachers and students because in addition to facilitating teacher and student interactions, it is also a relatively easy learning alternative to support the success of the learning process. Online learning is organized learning through web networks. Each subject provides material in the form of video recordings or slideshows, with weekly assignments to be done within a predetermined time limit and various scoring systems. Online learning eliminates the feeling of awkwardness which in the end makes students dare to experiment in asking questions and expressing ideas independently. free [17].

Online learning is learning that is done without having to meet face to face and can be done anytime and anywhere besides that with this online learning students become brave to express and share ideas so that students are more active and in online learning students use smartphone and laptop facilities that can improve learning outcomes with these facilities online learning runs effectively and efficiently.

**Classroom Impact on Teachers**

By using classroom as an online learning medium, it can make it easier for teachers to prepare classes, can save time, collect assignments in a simple and paperless manner, can make it easier for students to organize assignments and materials that have been given, establish good communication, do not require large funds[2].many use it because classroom is provided free of charge so that teachers and students only need an internet network to be able to access it. This explanation is in line with Pratama's opinion, that the benefits of google classroom are: 1) easy preparation for using it, 2) time saving, 3) paperless collection of simple assignments, 3) can improve organization, 5) improve communication, and 6) cost-effective.

Learning outcomes are an inseparable part of existence interaction, process, and evaluation of learning. Student learning outcomes are not all the same, there are students who get satisfactory results, and some have unsatisfactory results. This is inseparable from the ways, methods and learning models used by a teacher to explain the lessons given. The methods, methods and learning models must be made as attractive as possible so that students are interested in the lessons given. Classroom is actually designed to facilitate the interaction of teachers and students in cyberspace. Teachers have the flexibility of time to share scientific

studies and give independent assignments to students besides that teacher can also open discussion rooms for students online[5].

### **Impact Of Use of Classroom On Learning Objects**

Classroom is a structured classroom in the current learning process is the learning process through classroom is very easy to do, assignments are very easy saves time because the teacher gives paperless assignments. Besides that teaching materials can still be accessed even though the students are not there class again[1]. Classroom can be operated via mobile phones (HP), desktop computers, or laptops, the use of the classroom can make alternative solutions in overcoming learning problems in the classroom and the quality of learning outcomes can be achieved if you can utilize learning resources properly, such as learning through classroom[12].

### **Classroom Advantage**

For those of you who have used Classroom, of course you will feel the benefits and advantages of this application compared to other applications:

a. Simple

Google designed the classroom application with very simple integration with G suite for education, so that with this technology educators can focus on carrying out their duties as educators.

b. Safe

In addition, Google also guarantees a high level of security when using the Classroom application because this service is integrated with the Gmail service, which has a very good reputation in terms of security. This technology also functions as a storage medium or digital archive for students or educators which, if needed, can be accessed anytime and anywhere.

c. Broad Integration

Classroom is also integrated with several other learning applications from Google, such as class craft, Pear Deck, Quizizz, Tynker, Kami, and Little SIS. The collaboration between Classroom and the application will greatly assist educators in providing learning materials.

d. Cross Platform

The next advantage is that this application can be accessed on a PC (personal computer) or smartphone. So that educators and students can study, do assignments, and see announcements anywhere without having to meet face to face. So it is very efficient in delivering learning materials, assignments and announcements.

e. Easy To Use

The next advantage is its very friendly use. Starting from creating a new class to personalizing the class. All can be done with very simple steps. So that educators can focus on the goal of making the class. Educators are not preoccupied with the complexity of personalization of an application they use.

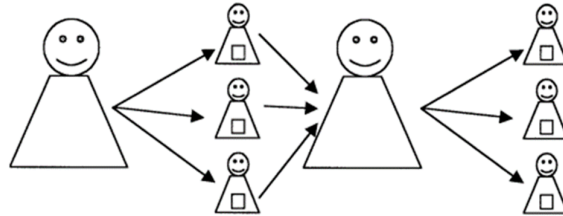
In addition, Classroom is also economical in terms of internet quota usage. This is because this application focuses on learning, both in delivering material and in giving assignments. Although there is a material link that is shared, the link can be accessed offline after participants download the material or assignment. The last advantage of Classroom is that educators and students can still communicate even under any conditions. Because the Classroom application can be accessed anywhere and anytime. In addition, Classroom also has a mutual comment feature to further improve communication between educators and students.

### **3.1 Traditional Versus Networked Classroom**

a. Traditional Classroom

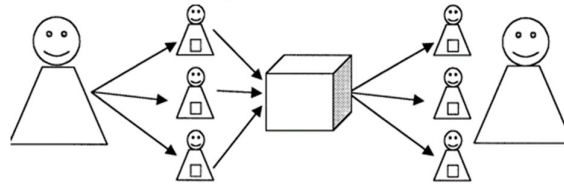
- The teacher gives assignments to students.
- Students complete, work on and submit assignments to the teacher.

- The teacher evaluates, assesses and returns the results of the assignment.
- Students see the results of the assessment of assignments.



b. Networked Classroom

- The teacher gives assignments to students.
- Students work on, complete and submit to a network of connected classes or classrooms.
- Students and teachers view assignments that have been sent in the classroom.



## 4 Conclusion

Based on the analysis of the discussion above, it can be concluded that the learning process was carried out well using classroom. This is because online learning through classroom in learning activities can be easily accessed by both teachers/educators and students according to the needs of learning activities.

Utilization of learning by using Classroom has a positive impact as can be seen from student learning outcomes which are increasing every day through assignments and quizzes. Students' perceptions of subjects conducted online using the classroom application, namely students feel happy using classroom because it is easy and the teacher/educator is not burdensome by giving a lot of assignments, classroom is flexible, which is easy to access anywhere and anytime, constrained internet access from the absence of a data network or smartphone that is used to support all students for the implementation of e-learning learning.

Thus, the conclusion is that the use of the classroom application in subjects is proven to be effective because it can improve student learning outcomes through planning, processes, results and student learning evaluations.

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