



## GOOGLE CLASSROOM: A SUBSTITUTE TO CLASSROOM TEACHING IN ENGINEERING COLLEGES

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Article Received:16/05/2020

Article Accepted: 16/06/2020

Published online: 22/06/2020

DOI: [10.33329/rjelal.8.2.240](https://doi.org/10.33329/rjelal.8.2.240)

### Abstract

It is said that change is the law of nature and education system is not the exception for this law. In old age, the education was given in the **Gurukul** under the trees. Then it moved to the classrooms using the chalk and board to express the ideas and impart the knowledge. Now the world is being developed with the new technologies, discovering and manipulating new ideas and concepts of online education are changing rapidly.

Key words: Google classroom, Engineering College, digital tool

### Introduction

It is said that change is the law of nature and education system is not the exception for this law. In old age, the education was given in the Gurukul under the trees. Then it moved to the classrooms using the chalk and board to express the ideas and impart the knowledge. Now the world is being developed with the new technologies, discovering and manipulating new ideas and concepts of online education are changing rapidly. This paper provides analysis and evaluation of the effectiveness of Google Classroom's active learning activities for English subject. Technology Acceptance Model (TAM) has been employed to measure the effectiveness of the learning activities. The responses of the students who enrolled English subject are used in this study. The results indicates that majority of the students are satisfied with the teaching done by the researcher with the help of Google Classroom.

### Rational for the study

It is a well-known fact that the professors of the Engineering colleges are bound to complete the syllabus of particular semester on time because in India, most of the engineering colleges are affiliated to the particular university. The university has its own schedule to conduct the exam and all the affiliated colleges have to follow that. In Bihar, Engineering Colleges are affiliated to Aryabhata Knowledge University, Patna.

Most of the Engineering Colleges in Bihar are far away from the main city. To reach the college on time is depending on the road situation. Due to this, there are many problems suddenly stands in front of the college administrations such as Bharat Band, Road Blockage, Heavy Rain fall, rallies, and so on which hampers the academic calendar and leads towards the poor performance of the students in university exam. The solution for this problem is the technology and google classroom is one of them. Google Classroom is a blended learning platform for schools that aims to simplify creating, distributing

and grading assignments. Google Classroom is a free application designed to help students and teachers communicate, collaborate, organize and manage assignments. It was introduced as a feature of Google Apps for Education following its public release on August 12, 2014.

#### **Literature review:**

Jenny Arledge says "Technology can become the "wings" that will allow the educational world to fly farther and faster than ever before—if we will allow it"

Technology innovation as concluded by (Mafa and Desmond, 2017) permits a few exercises for use in and outside of the classroom. It advances community oriented learning and influencing learners to know what is occurring around them and to have the capacity to make future expectations.

Now days it is said that the ever growing learning management systems are Google Classroom, a component of Google Apps for Education, a free suite of productivity tools including Gmail, Drive, Docs, and so forth. Ease of use, time saving, free, flexibility, mobile friendliness, and cloud-based nature have been described as benefits of Google Classroom.

So far, to the best knowledge of the researcher, all the research conducted on Google classroom have indicated a positive response from the students. None of the research has focused on taking into account the study of Gaya college of Engineering, Gaya. Bihar.

#### **Discussion**

The researcher is working with the research project named "Use of Integrated Pedagogies to Enhance the Communication skills of the Engineering Students in Bihar" approved by AICTE and Sanctioned by MHRD-NPIU. During the research he studied many innovative ways of teaching communication skills. He had come across with the word (Virtual classroom) google classroom.

The researcher found that many students from the First Year are using smart phone with internet. It has been thought why should not be the mobile phones converted into the class (virtual

class). He talked with the students about the google classroom. Students had not the idea about this new virtual classroom. Students were surprised and showed interest to participate in this new classroom. The researcher gave thorough information about how to use the google classroom.

At first, the researcher downloaded the google classroom app from the google play store and registered the class with the subject name English. The students were enjoying the holidays and the researcher was busy in his innovative idea. The researcher created one whatsapp group of the students and used it to instruct. The students have been directed to download the google classroom in their mobile phones. Most of the students gave positive response. After that, the students have been provided the class code to join virtual class.

After joining the class, the researcher welcomed all the students. Step by step, he started to teach some modules from the syllabus given by Aryabhata Knowledge University, Patna for the First Year Engineering with the help of the google classroom. Every day, some study material had been created along with some questions with the purpose to check whether students are getting the concept. Many videos were recorded related to the topics like word formation, active voice and passive voice, direct and indirect, writing an application along with resume building etc. For elaborating and clearing the concepts, the videos which were already were in YouTube were used. The study materials from different web sites were used.

#### **Findings**

It has been found that more than 108 students of second semester had enrolled for the virtual classroom that is google classroom out of which 82 (88.56%) students actively participated. Every day, students studied the study material, completed the given homework. Many students mate to the deadlines of the submission of the assignments. While going through the study material if students found any difficulty, they pasted the problem in comment box. The teacher tried to reply all the questions.

At the end, the researcher circulated the feedback form for collecting the information about the experience and satisfaction in learning with the google classroom. Out of 108 students of Civil engineering and Mechanical Engineering, 63 students submitted their feedback out of which 9.5% are females and 90.5% are male. In the feedback form, the researcher asked the information about student’s satisfaction under five heads -Very Poor, Poor, Can’t say, better and best. Students provided their feedback according to their experience.

The researcher got very surprising data. 44.4% students found the Google classroom provides the instruction in best way, 50.8 % students found it in better way and 1.6% students replied for Can’t Say. If total positive response is calculated, it is 96.8% and just 3.2% students give negative feedback. 54% students found best in access of the

learning material from the google classroom, 38.1% Better and 4.8% students say ‘Can’t Say’. Here also, if the calculation of positive response is done, it is 96.8%. Just 3.2% students go for Very poor and poor heads. In the same way 94.2% (Best=39.7%, Better= 46%, Can’t Say= 9.5%) students admitted that the videos send by the teachers (self-prepared and taken from Youtub) were accessible. 96.7% students found satisfactory in getting quick feedback of result of quiz, assignment, questions and test. 93.6% students found easy for submitting the assignment, Test Paper and quiz by using Google Classroom was convenient. 96.8% students found their experience of the learning with Google Classroom is Can’t say, Better and Best. Reply for the question that “should other teachers also use Google Classroom?” 69.8% students gave positive reply but 25.4% students said May Be but 4.8% students replied No.

Sr. No.	Information asked	Average(n= 63)
1	Number of Students participated	<p>A pie chart showing the gender distribution of the 63 participants. The chart is divided into two segments: a large red segment representing 90.5% (Male) and a smaller blue segment representing 9.5% (Female).</p>
1	Google classroom provides the instruction given by the teachers? (Your experience)	<p>A pie chart showing the satisfaction levels regarding the instruction provided by teachers. The chart is divided into five segments: 50.8% (Better, green), 44.4% (Best, purple), 1.6% (Can't say, yellow), and very small segments for 1.6% (Poor, orange) and 1.6% (Very Poor, blue).</p>
2	Access of The learning material	<p>A pie chart showing the satisfaction levels regarding the access of learning material. The chart is divided into five segments: 38.1% (Better, green), 54% (Best, purple), 4.8% (Can't say, yellow), and very small segments for 1.6% (Poor, orange) and 1.6% (Very Poor, blue).</p>
3	Access of the videos send by the teachers (self-prepared and taken from Youtub)	<p>A pie chart showing the satisfaction levels regarding the access of videos sent by teachers. The chart is divided into five segments: 39.7% (Best, purple), 46% (Better, green), 9.5% (Can't say, yellow), and very small segments for 1.6% (Poor, orange) and 1.6% (Very Poor, blue).</p>

4	Getting quick feedback of result of quiz, assignment, questions and test.	
5	Submitting the assignment, Test Paper and quiz by using Google Classroom was convenient	
6	Your experience of the learning with Google Classroom	
7	Do you think that other teachers also use Google Classroom	

**Limitations and future scope of the study:**

This study was carried out in one Engineering college and only English subject has been taught for the branch of Civil Engineering and Mechanical Engineering First Year only. Further study may involve all subjects of the college. Limited questions were asked through the questionnaire. Questions were asked only with the students and not the teachers.

**Conclusion**

Teaching in the 21<sup>st</sup> century does mean teaching 21<sup>st</sup> generation where the role of a teacher is to experiment the digital technologies. In many Engineering colleges, digital boards have been fixed to use for teaching learning process. Students are also interested in learning with new methodology. Virtual classroom (google classroom) is the best option to help the student better understanding of the subject as well as completion of the syllabus on time.

**Acknowledgment**

I express my thanks to the central government of India for implementing TEQIP-III project due to which I got the opportunity to work in Gaya College of Engineering, Gaya Bihar and experiment above research. I take this opportunity to express my thanks to all Teaching Faculty members of the Department of Humanities and Sciences for helping in this research.

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