



# TO STUDY THE EFFECTIVENESS OF TECHNOLOGY BASED TEACHING AMONG COLLEGE STUDENTS.

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**Abstract:** In today era technology-based teaching has become an Integral part of student learning process. We can observe everywhere there is new methods and developed software that are used for making the teaching and learning process for students better with conceptual learning. This technology-based teaching is changing the traditional way of teaching with student and teacher self-growth. It is not limited to an institute; this method is being used everywhere even from home. Students are using this method to their ease of learning and clearing doubts. This paper shows that the use of interactive features of e-learning and its effectiveness among the college students for the learning process.

**Index Terms - Technology-based teaching, Conceptual learning, E-learning.**

## INTRODUCTION

Technology -based Teaching is used nowadays as one of the effective ways of teaching option for face-to-face education. As a matter of fact, its uses to increase the learning and grasping method for students. This has made educators, colleges, institutes to bring a great teaching content with the multimedia effect that attracts the student to learn in a better way with interaction. E-learning has been introduced as a learning tool that is growing rapidly day by day after the pandemic worldwide. Technology based teaching helps to enhance students learning in effective way. The increased use of e-learning among educational institutions has bring a great change in education perspective. According to findings, only 11% of all the students enrolled in both private and government schools were using online classes, another 21.5% were using videos or recorded classes. And if you take the government school children alone, then only 8.1% enrolled children were using online classes across the country.

## 1. OBJECTIVE OF RESEARCH

- To compare the relationship between traditional learning and technology based learning.
- To investigate the effectiveness of using e-learning among college students.
- To discuss the difficulties faced through E-learning

## 2. SCOPE OF RESEARCH

In this research, we have collected the responses through questionnaire in the domain of Parul university. So in future we will collect the data for the broader domain like in Vadodara city to get more improve on this research. The only instrument used in this survey was a questionnaire. Respondents were specifically selected based on educational background and specific college or university.

## 3. RESEARCH METHODOLOGY

In this research, quantitative methodology was used to collect and analyze the data obtained from all the respondents. The researchers developed the questionnaire and finalized it before being distributed to the targeted group of respondents. Few sections on the questionnaire were designed specifically to address research knowledge of technology confirmation and actual use of intention to use ease of Perceived usefulness objectives in regard with the effectiveness of technology-based teaching for students in learning and effective elements of ICT integration. Therefore, the questionnaire was distributed to obtain the data from the respondents. students learning and efficient ICT integration components. As a result, the questionnaire was made available to the responders in order to collect their data.

### 3.1 Population and Sample

The data is to be collected from approximately 100-150 respondents in Parul University, Vadodara.

### 3.2 Data and Sources of Data

Data that is gathered for the first time is referred to as primary data. This data is to be collected by conducting a survey through an online questionnaire. Some data specifically was produced for the purpose of research, which was collected from various sources like:

- a) One to One Questionnaire Requests
- b) Personal E-mails

### 3.3 Theoretical framework

#### 1. The Importance of Educational Technology in Teaching by Dr. Lazar Stosic 2015

The result is that the presence of educational technology is growing in the classroom. The new generation of kids come ready to work with these new technologies, which play an important role in children's learning and acquiring various cognitive knowledge so that educational technology must be incorporated into future curricula. The use of educational technology improves cognitive abilities and capabilities. With the help of new technology comes an explosion of learning and receiving new information, especially on mobile devices.

#### 2. Digital technologies in support of students learning in Higher Education by Marta Pinto 2015

The result of this study is that Digital technologies are an integral part of Higher Education teaching, revealing a set of technologies chosen to integrate formal learning contexts, and therefore being used by students in support of learning. The data also showed that digital technologies facilitate more transmissive

teaching methods, making it easier for students to access, share, and publish material on their own, while being far less frequently employed to encourage collaborative and cooperative learning.

### 3. Effects of Technology on Student Learning by Kaite J. Carstens , Jamie M. Mallon

This study set out to examine how technology affects student learning. As technology evolves constantly, classrooms must adapt by adding additional technology and integrating it into student instruction. Technology has the potential to both enhance student learning and harm the educational process. Technology improves many learning possibilities and provides comfort for students, but it may also be a tool that is overused, which may have negative effects on students' ability to develop their fine motor skills and problem-solving abilities. The results indicated that greater training for educators is required in order to improve the use of technology in the classroom.

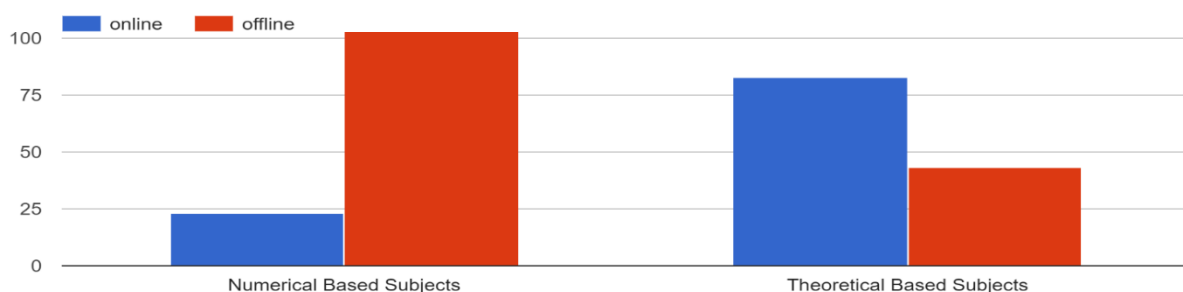
#### 3.4 Limitations of the Research Study:

As it is technology-based learning it is the process of constant modification. The limitation of this study is students are less satisfied with numerical based subjects in online mode as compared to theoretical based subjects. In online learning it is difficult to ask question for numerical problems in online mode and it is difficult to pay attention especially in numerical subjects. The second limitation is that there is lack of motivation in online learning as compared to classroom-based learning and students are also faced technical issues because of the network problem. There is lack of person interaction in online learning.

#### 3.5 Statistical tools

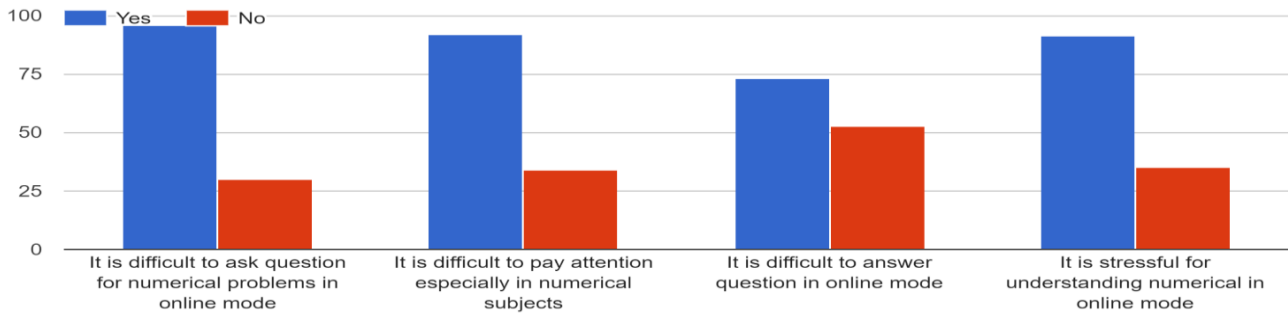
Data is formed on the basis of questionee circulated, and the data is analysed based on the student preferences for learning and in which form more difficulties are faced.

Technology Based Teaching is effective for you to understand :



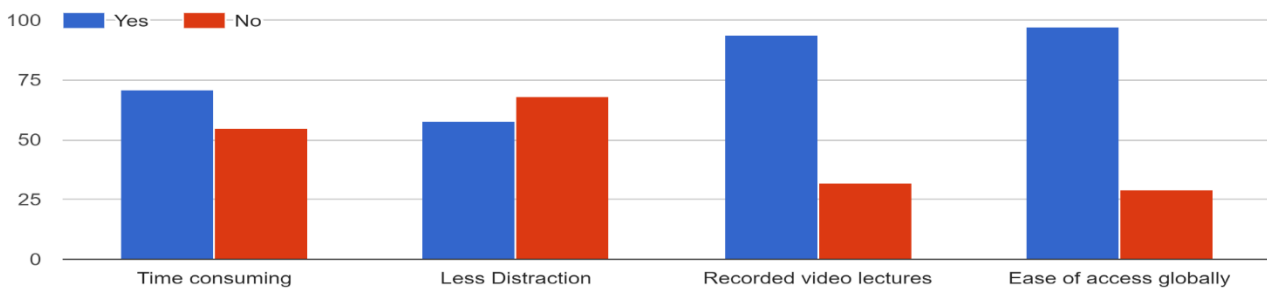
The above figure shows that numerical based subjects is more effective in offline and theoretical based subjects is more effective in online.

Are you facing any problem in learning numerical based subject in online mode



The above figure shows that numerical based subject is difficult in online mode like to ask question, difficult to pay attention, and also it is also stressful.

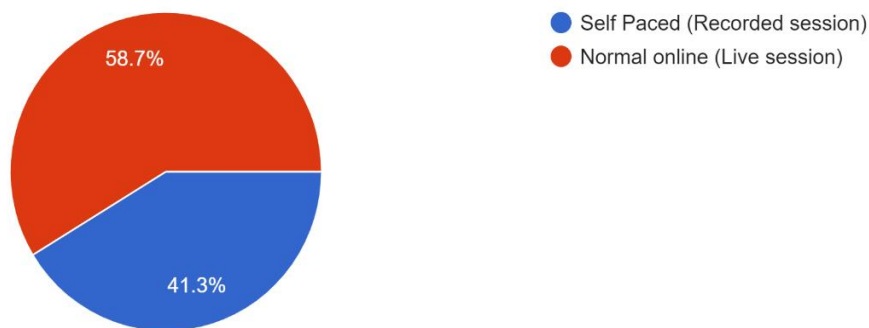
Which factor motivates you for online learning ?



The above figure shows that online learning motivates more as compare to traditional learning.

What type of online learning you like ?

126 responses



The above pie chart shows that 58.7% likes normal online session and 41.3% likes self-paced session.

#### 4. RESULTS AND DISCUSSION

- The result of this study show that technology-based learning is more effective in compare to traditional learning. This is because using technology-based tools will an active learning environment that is more interesting and effective for both teachers and students.
- This Study proved that students learn more effectively with the use of technology and also familiar with online teaching methods with 88.1%. According to this study we also find E-learning make students to learn the concepts very well.
- Further, Students are more satisfied that Technology based teaching is effective to understand the theoretical Based subjects as compare to numerical based subjects.
- There are difficulties faced through the online learning like lack of motivation among students, technical issues, lack in person interaction, lack of discipline.
- We also find the comparison between the recorded session and live session in which students strongly agree that in live (online) session they can ask doubts instantly as compared to recorded session. 58.7% students are agreeing with the online session and 41.3% students are agree with the recorded session.
- We find that students are facing problems with the numerical based learning in online mode.  
They are:
  - It is difficult to ask question for numerical problems in online mode.
  - It is difficult to pay attention especially in numerical subjects.
  - It is stressful for understanding numerical in online mode.
  - It is difficult to answer question in online mode.
- There are factors which affects the students to learn the technology-based learning like:
  - Time consuming: Most of students agree that online learning is better than classroom-based teaching because it consumes time and it reduces the cost.
  - Recorded video lecture: Recorded video lecture is one of the finding that student agree due to technical issues so that they can easily study the topic of the online class.
  - Ease of access Globally: Due to technology-based learning we can easily access any corner of the world and also made it efficiently and effectively.

#### 5. CONCLUSION

We have discussed how effective technology-based teaching is. Through an integrative review and study, relying on literature review, this paper identified multiple ways to define effectiveness, with 'learning outcome' as the most prominent definition. The Questionnaire Included open-ended questions. We also observed that Instructors need to understand that students needed to be motivated when session is going online as there is vast difference between numerical and theoretical based session. At the same time, it can be difficult to assess student thinking for online learning due to the lack of personal contact between students and teacher. One way to avoid this is to have a one-to-one session with students to know if they are facing any doubts or lacking at any point.

## 6. Recommendation:

- There is a need to find solutions to the difficulties faced by students in online learning for technical courses.
- Sir/Teachers should be given technical knowledge or training to overcome/face the difficulties faced in online learning.

## 7. ACKNOWLEDGMENT

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