

# Online Teaching Effectiveness: Faculty's Perspective

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## Abstract

Information technology has been having an important aspect of our everyday lives. And with the latest telecommunication wars in India, the internet has become even more available to average citizens in India. Several redundant jobs have been stripped away by the growth of the IT industry, where education is no different. Educating online along with Information and Communication Technology has altered the face of learning. The present research deals with the teaching effectiveness of online education in both technical and non-technical courses. When working with advanced teaching media, the teachers have their pros and cons. It is clear that owing to an unprecedented pandemic, the new scenario is a glimpse of the future, where the teacher will have an enormous function to play.

## Keywords

Information and Communication Technology, Online Education, Technical and Non technical Courses

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## Introduction and Problem Discussion

The learning path is education. Education is necessary to make sure that an individual flourishes with everything he does in the future. This progress can be measured by how well he receives or how good he has been doing his work. It is the teachers' responsibility to make the learning interesting to ensure that the pupil knows more than is simply written in the book. In the existing system, education should guarantee that there are educational classes of importance, moral classes, ethics, and personality and so on. To become healthy and wise people of the future, the new educational system should teach values. Today, the institutions require the students to learn more about factual knowledge instead of subjective knowledge and students are fully focused on text books, which costs student because they have no other means of education. As the text book is issued, the teacher is not given much attention. Students have little autonomy to act innovatively. With introduction of the internet and its subsequent growth, there has been an unprecedented rise in the networking industry in recent years. The Arpanet, the basic network built to send and receive data packets through the US Military information networks, become the basis of the worlds' largest and most difficult network linking computer systems. The inception of the internet altered the world's fundamental laws, which were accepted by putting the most elite and priced instrument in the hands of any citizen i.e., usability. Formerly available information for the disposal of elite few were now was available to anyone who had a computing device and secure link. Today, this increased connectivity has contributed to the creation of global community which without the hindrance of boundaries, can exchange ideas and information and learn. Knowledge through their mutual association, more and more people is becoming part of this culture with each passing day enriching it further with their own experience. Apart from a medium for exchanging information, the internet has also been a platform for business and services these days. Different channels have arisen for offering services ranging from shopping, purchasing food, booking tickets and even having online education degree. These platforms provide the world in general with the stable business transaction base. This boosts communication and the global communities' general understanding. In education sector as well, the internet has found tremendous usefulness. Online education is a type of education that uses the internet or web based multimedia tools. It has taken the institutions to the personal computer of every citizen and reduced the barriers one faces to access education. In recent years, online education has picked up because of the ease of access to the internet, as well as to satisfy people's time constraints. Many people are not able to do such degree courses due to geographical, logistical, family and job obstacles via these online education services, one does not need to sit during the day for tutorials but can take these courses on the go instead. In between jobs, while travelling, after lessons, etc. strong access to the internet is what they require. The above said are the cases may be, but owing to the current situation, the educators and learners have no other go but to teach and learn through online medium. Online classes conserve cash as well. It lowers the required hours of infrastructural and physical instruction. For educators and organizations, the game is evolving with the growing use of technology. Education in both technical and non technical institutions has become a significant career that receives tremendous interest around the world(Lanier, 2006). Continuous improvements along with the pace of transition in both technology and economic processes enable institutions to be involved in continuous teaching processes. In the current situation, all learning activities are held online regardless of the domain, where the present analysis with the above setting is intended to find the solution for the following research objective;

1. To examine the effectiveness of online teaching in education

## Literature Reviews

(Hemsley et al., 2019)noted that the primary goal of the online course is to increase the learners' experience and to improve the learning outcome of the course. Similarly there are benefits and drawbacks to each method of online learning, and these obstacles open up new possibilities for academics. The internet had made it easier to use digital resources to involve the learner. Many instruments or navigators make it possible for the instructor to include the students in the course of learning. Some resources are views of the websites, browsing web bets, browsing tapped, sidebars, etc., Google allowed the quest and made it easy to see the outcome at the click of the button for the learner. (Hemsley et al., 2019; Larreamendy-Joerns & Leinhardt, 2006)found that for

the learner, online training or web based learning can be very successful. The machine will assist the student in reaching the answer if student encounter a challenge, when observing a class. Computers may notice the pattern of errors and may recommend that the learner take preventive measure to find the answer to the question or to come to the solution. (Jonassen, Davidson, Collins, Campbell, & Haag, 1995; Moralista & Oducado, 2020) stated that the faculty in nursing education required to be skilled enough in their role to positively impact student outcomes. Past and present researches provide various strategies for teaching online; even though there may be some disparities in its applications and its related outcomes. (Manochehr, 2006) provided practical suggestions after reviewing forty seven articles, for those who are planning to make online courses and implementing the same in sequential processes. The study proposed that effective classes in online mode is dependent upon well-defined course contents, encouraged interaction between the teachers and students, skilled teachers and rapid application of technology.

## Methodology

The research is investigative and qualitative in nature and the primary data has been used in this study.

## Analysis and Discussion

**Table 1:**  
Demographic Profile

Demographic Variables	Classification	Frequency
Age	Less than 25 years	26
	26-40 years	39
	Above 40 years	35
Marital Status	Married	62
	Unmarried	38
	Divorced/Widowed	0
Education	Post graduation	20
	Pre doctoral	42
	Doctorate	38
Type of College Working	Engineering	37
	Medical	18
	Arts and Science	28
	Polytechnic/ITI	17
Experience	Less than 3 yrs	30
	Between 3 & 5 Yrs	34
	More than 5 Yrs	36
Grade/ Post	Assistant Professor	48
	Associate Professor	32
	Dean/Director/Principal	20
Annual compensation	Less than 3 lakhs	52
	Between 3 & 5 lakhs	36
	More than 5 lakhs	12

**Source:** Primary data

Primary data will be collected using questionnaire technique from the selected faculty members over the city of Coimbatore (Nguyen, 2015). Secondary data for the study has been collected from books, websites and few journals and news paper, for this study secondary data was collected through various sources such as magazines, internet and company reports and business journals. The population targeted for this study consisted of respondents who are the faculty members of colleges. A total 100 faculty members from the city are being selected and to whom the questionnaires are distributed for data collection adopting is simple random sampling. The above table 1 shows the demographic profile of respondents who are the faculty member of colleges in Coimbatore city. It can be clear from the table that most of the respondents are from the age category of between 26-40 years constituting 39 per cent of total sample. Majority of the respondents belonged to the married category, at the rate of 62 per cent. 42 per cent of respondents are in pre doctoral education, 37 respondents are working in engineering colleges, most of the respondent's Experience of more than 5 Yrs at the rate of 36 per cent. 48 per cent of the respondents are at the Post of Assistant Professor, 52 per cent of respondents' highest of Annual income is less than 3 lakhs.

**Table 1:**  
Perception towards online classes

Statements	Accept	Deny
Through online mode I could learn varied training and teaching methods	63	37
It may add value to the teaching	42	58
I feel confident in taking classes through online	46	54
I am optimistic about this futuristic approach in teaching	39	61
I feel comfortable and convenient in online mode	42	58
It has a favorable rational impact	30	70
It helps in easy and quicker assessment	62	38
The online mode of teaching is economical	45	55
It helps to explore new technologies	88	12
I am confident that I can perform effectively on many tasks	36	64
Lack of personal attention towards students is the major problem	96	04
Presence of online mode of teaching can harm the employment of faculty	77	23
Teaching efficiency can't be proved using online mode, provided the appealing presentations and videos are not considered	87	13
Classroom teaching is better than online teaching	79	21

**Source:** Primary data

The above table represents the perception of faculty members towards the process and structure of online classes. The table confers that 63 respondents accepted for the statement that through online mode they learnt varied training and teaching methods, 58 respondents denied that it may add value to the teaching, 54 respondents denied that they feel confident in taking classes through online, 61 respondents denied of being optimistic about this futuristic approach in teaching, 58 respondents denied of being comfortable and convenient in online mode, 70 respondents denied that it has a favorable rational impact, 62 respondents accepted that it helps in easy and quicker assessment, 55 respondents denied that the online mode of teaching is economical, 88 respondents accepted that it helps to explore new technologies, 64 respondents denied of performing effectively on many tasks in online mode, 96 respondents accepted that lack of personal attention towards students is the major problem, 77 respondents accepted that the presence of online mode of teaching can harm the employment of faculty members, 87 respondents accepted the fact that the teaching efficiency can't be proved using online mode, provided the appealing presentations and videos are not considered and finally 79 respondents accepted the fact that classroom teaching is better than online teaching.

### Association between Perception on Online Classes and Demographic Profile

**H<sub>01</sub>:** There is a significant association between the perception on online classes and the demographic profile of respondents

**Table – 2:**  
Chi-Square Analysis

S.No	Dep. Variable	Ind. Variable	$\chi^2$	Sig.
1	Perception	Age	26.54	0.01**
2	Perception	Marital status	31.22	0.00**
3	Perception	Education	12.98	0.04*
4	Perception	Type of college	8.49	0.05*
5	Perception	Experience	05.89	0.05*
6	Perception	Grade	11.66	0.56
7	Perception	Compensation	10.48	0.79

**Source:** Primary data \* Significant at 5%. \*\* Significant at 1%

The above table depicts the chi-square analysis between perception of respondents and their demographic classification. It is clear from the table that the hypothesis is accepted for grade and compensation and rejected for the rest of demographics. Hence, the null hypothesis is rejected for those variables and conferred that the association between the perception on online classes and the demographic profile of respondents do exist significantly.

### Relationship between Online Classes and Teaching effectiveness

**H<sub>02</sub>-** The relationship between the online classes and the teaching effectiveness is insignificant.

**Table 3:**  
Correlation

		Online classes	Teaching Effectiveness
Online classes	Pearson Correlation	1	.91**
	Sig. (2-tailed)		.00
Teaching Effectiveness	Pearson Correlation	.91**	1
	Sig. (2-tailed)	.00	

\*\*Sig at 1 percent level **Source:** Primary data

From the above table, it is clear that there is a significant relationship between online classes and the teaching effectiveness. The variables imply a strong positive correlation. Thus, it can be concluded that there is a significant relationship exists between online classes and the teaching effectiveness. (Clark & Verduin Jr, 1989) A regression analysis was used to measure the degree of impact between online classes and the teaching effectiveness.

### Impact of Online classes on Teaching Effectiveness

**H<sub>03</sub>:** The online classes handled by teachers will have no significant impact on their teaching effectiveness

**Table 4:**  
Regression Analysis

Variable	Coefficient	Std.Error	t	Prob.
OC	-3.61	3.99	-1.65	0.04
C	-2.99	2.64	-3.30	0.02
R <sup>2</sup>	0.46			
Adjusted R <sup>2</sup>	0.54		Durbin-Watson	1.49
F	18.80		Prob.	0.00

The table above shows the regression analysis between online classes handled by teachers and teaching effectiveness. The analysis shows ( $R^2 = 0.42$ ), which states that online classes contributed significantly for the teaching effectiveness. The F-statistic is significant indicating the hypothesized relationship between the variables is validated. The value of Durbin-Watson is 1.49 indicating that the model is not suffering from auto correlation problem. The calculated F value is significant and hence, the null hypothesis is rejected and concluded that the online classes handled by teachers will have a significant impact on their teaching effectiveness.

## Conclusion and Recommendation

A new era began in the first few years of the 21st century, referred to as the attention era, indicative of the ability to access or share information instantly, using the internet as the medium. Several platforms gained popularity during this period and the number of users increased. The effectiveness of ICT does not necessarily increase with time. The change in effectiveness concerning time depends on the quality of the information in question. Based on the findings of this study, it is recommended that the institutions must develop policies that encourage innovative usage of online mode for educational purposes such as group discussions, group research projects, etc. whilst minimizing its negative impact on students by controlling ICT use among students during learning sessions. The need of effective employees are began a top priority as in last two decades, global competition, harsh economic conditions, continuous innovation and new technology brings restructuring of organizations, which leads to change in nature and structure of work. The technical education institutions are highly dependent on teaching effectiveness. The online mode of teaching has both pros and cons, where the cons stand a top than pros. Though proctoring and monitoring can be done at higher levels, the online teaching can't withstand the impact that the traditional teaching bring forth. Aggregating everything, there is a strong support to suggest that online learning can be as least effective as traditional

format, but the proof is, by no means, decisive. Online education is a continuing story that is still on its process of development, and how it goes through will likely to depend on those present.

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