

## EFFECTIVENESS OF ONLINE TEACHING AND LEARNING PROCESS IN SEMI URBAN AREAS- AN EMPIRICAL STATISTICAL STUDY

R. Karthi

Professor, Department of Management Studies, E.G.S. Pillay Engineering College, Nagapattinam, Affiliated to Anna University, Chennai

[karthi@egspec.org](mailto:karthi@egspec.org)

Orcid: -0000-0002-5976-5708

P. Jamuna Devi

Assistant Professor, Department of Mathematics, A.D.M College for Women (Autonomous), Nagapattinam, Affiliated to Bharathidasan University, Tiruchirappalli

[pjamunadevi@gmail.com](mailto:pjamunadevi@gmail.com)

Orcid: -0000-0002-3950-1190

### ABSTRACT

Online teaching is becoming a necessity for the students to learn things in the Covid19. Many of the educational institutions are still closed due to the pandemic, but the learning process is in progress with the support of online teaching. It helps the students to learn courses from their teachers, complete assignments, and equip themselves. The purpose of the study is to find out the effectiveness of online teaching among the students of semi-urban areas. The research behind choosing the topic is to analyze the impact of online teaching on students learning and the facilities available to access the content online. In this study, the researcher studies the effectiveness of online teaching among the students in semi-urban areas of Nagapattinam district, South India. The researcher has chosen 117 samples to measure the effectiveness of online teaching in educational institutions. The research has reached the conclusion based on the results.

**Keywords:** education, semi-urban students, online learning, technology, interest in learning

### INTRODUCTION

The journey towards education is demanding the learners to improve their competence in the area of online learning. To attain the destination of knowledge in education, a continuous learning concept should be incorporated among the students. The face of learning has been changing in different situations and periods. It would have started from Gurukulam- the students stayed at teachers' home and learned to schools and learning courses using online. The concept of teacher-centric has drastically reformed and students' centric education has been implemented. The school of education highlights the concept of outcome-based education and not output-based education. The students are assessed not only for the performance but also for their attitude. Online learning can be effectively done through the transformation and integration of knowledge between the teachers and students.

The present education is giving a new direction to education. The fast and furious development of technology in the present world gives many avenues to the learners to equip new concepts through various modes of learning. There are various methods to learn the concept from pen and paper to technology-based learning such as iPod, tablet, kindle, laptop, smartphone, etc., At the same time measuring the retention rate of the students who have chosen online-only degrees are difficult to measure because many students have opted both online and on-campus courses (Brown, V.S., Strigle, J., Toussaint, M. (2020). In this techie scenario, the usage of smartphones is inevitable to learn much information. During this pandemic situation, many of the schools, colleges, and universities are conducting classes through online mode such as taking classes, giving assignments, conducting group discussion, presenting. Haythornwaite, C., & Andrews (2007) the students get rich technology-based knowledge and have interaction with other knowledge-sharing sites inside and outside the classroom. Bozkurt and Sharma, 2020, Quintana and Quintana, 2020, Sahu, 2020 specified in their studies that intellectual and corporal well being is to be given primary importance by the educational institutions than focusing on curriculum.

This study is mainly focused on the effectiveness of online classes among the students who are being in semi-urban areas within Nagapattinam District, South India. Online teaching is an inevitable part of the students learning environment in this pandemic situation. The Ministry of education is striving to enrich the knowledge of students through different forums like NCERT, SWAYAM, NPTEL, HEI, etc., Many research-oriented programs are initiated by the Government bodies such as DST, MNRE, ICSSR, TNSCST, etc., to motivate the student's research knowledge with financial support. Effective implementation of all the practices can be done with well-trained and motivated teachers. The success of online education depends on the efficient teacher,

motivated students, and effective system of learning. All the above-mentioned factors have stimulated the researcher to execute the study on the effectiveness of online teaching among the students in semi-urban areas of Nagapattinam district.

## REVIEW OF LITERATURE

Neuhauser, C. (2002) investigated two sections of students who have chosen the same course. At the end of the study, it is observed that 96% of the student responded that online course is more effective than one to one classes. It is studied that there are no differences in test scores, assignment submission, and final grades. Patrick, S., & Powell, A. (2009) in their study on virtual learning, measuring the student performance is better or good compared to the students having a face to face interactions. Maki, Maki, Patterson, and Whittaker measured improved efficiency students on content questions of examinations enrolled in an online introductory psychology course. Vavolua (2005) pointed out that the technologies can be used in education efficiently in science during lectures, seminars, field trips, and using the technology the students can collect scientific data. Prensky (2004) said that the students can learn the subjects taught by the teachers online. Tindell and Bohlander, (2012) highlighted in their research that the fast growth of technology helps the students to learn new information and can score high marks in schools. Wood et al. (2012) observed the impact of learning through electronic media has increased even attending college classroom lectures. The students can collect information from various sites and update their knowledge. Gretchen Kerbs (2012) stated that online education will create a huge impact on student's achievement and the benefits will be more than the risks. Escobar Fandino and Silva Velandia (2020) indicated in their research that the teachers have to identify various practices for developing the students to learn things online methods. Troussas et.al., (2020) highlighted that students have to be developed inherently to employ technology, and teachers have to make use of this condition to reinforce students' commitment and learning. Many online classes have to be prepared and offered to school children and the students residing in detached places to access learning adaptability. (Smith, Burdette, Cheatham, & Harvey, 2016; Zalaznick, 2019). Thabet et al., (2020) highlighted that the mindset of the faculty members is optimistic and most of them are conscious of the advantages of using online learning in the educational system. Bao, 2020; Rapanta et al., (2020) highlighted that the combination of networked learning may be collaborated with practical and tutorial support to improve the quality of education.

## OBJECTIVES OF THE STUDY

1. To analyze the effectiveness of online education among the students in semi-urban areas of Nagapattinam District.
2. To find out the accessibility of delivery through online mode.

## HYPOTHESES

1. There is no significant difference between online teaching in educational institutions.
2. There is no significant relationship between the quality of teaching and the effectiveness of online teaching

## RESEARCH METHODOLOGY

Research is a plan of investigating a problem to reach solutions. The research structure adopted for the study is descriptive research. In this research, the effectiveness of online education is assessed by the college students of the Nagapattinam region of Tamilnadu State, India. An organized survey was prepared to mobilize the data from the respondents. The validity of the questionnaire is tested to measure the quality of the questionnaire. A pilot study was conducted among the students with the draft questionnaire for getting an opinion about the survey. The survey was confirmed based on the opinion given by the respondents and the experience of the researcher for his in-depth knowledge in this study. The sample size for the study is 117 respondents. The researcher has collected secondary data from magazines, journals, and websites.

### Statistical Tools

The collected data were analyzed using SPSS and statistical tools such as 1. Multiple Regression 2. Correlation and 3. Reliability test

### Table Reliability test

**Table 1 Reliability Statistics**

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .862             | 25         |

A reliability test is conducted to measure the internal consistency of the coefficient using Cronbach’s alpha. A reliability test has been applied to check whether the random error influencing the inconsistency of the data and in turn, it reduces the reliability is at a controllable level or not.

From the table, it is observed that the result of the Cronbach’s alpha test is 0.862. It shows that internal consistency reliability is at a satisfactory level.

**H1: There is no significant difference between online teaching in educational institutions.**

The information provided in the coefficient table is analyzed to measure if one or more independent variables are significant predictors of the effectiveness of online teaching. It is concluded that one independent statement is statistically significant.

The standardized coefficient beta column discloses that quality of teaching has a beta coefficient of 0.276 which is not statistically significant at 0.000, Coverage of portions has a beta coefficient of 0.266 which is not statistically significant at 0.000, and accessing of delivery has a beta coefficient of 0.375 which is statistically significant at 0.000.

Multicollinearity of the independent variables is calculated with the size of Tolerance and VIF. Multicollinearity between the independent variables is high, and then there is no meaning to hold many independent variables with similar information. This can be assessed when the tolerance value is smaller than .10 and the VIF is 6 or larger, then multicollinearity is a problem.

Here the tolerance value is more than 0.1 and the VIF is less than 0.6 which means there is no multicollinearity among the independent variables.

**Predicted Value of Effectiveness of online teaching**  
 $=2.792+0.245$  (Quality of teaching)  
 $+0.257$  (Coverage of Portions)  
 $+0.390$ (Accessibility of delivery)

**Table 2 Coefficients<sup>a</sup>**

| Model                     | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. | Collinearity Statistics |       |
|---------------------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|-------|
|                           | B                           | Std. Error | Beta                      |       |      | Tolerance               | VIF   |
| 1 (Constant)              | 2.792                       | 1.101      |                           | 2.536 | .013 |                         |       |
| Quality of Teaching       | .245                        | .079       | .276                      | 3.103 | .002 | .283                    | 3.536 |
| Coverage of Portions      | .257                        | .104       | .266                      | 2.463 | .015 | .191                    | 5.236 |
| Accessibility of Delivery | .390                        | .103       | .375                      | 3.786 | .000 | .227                    | 4.400 |

a. Dependent Variable: Effectiveness of Online teaching

**H2: There is no significant relationship between the quality of teaching and effectiveness of online teaching**

**Table 3 Correlations**

|                                  |                     | Quality of Teaching | Effectiveness of online teaching |
|----------------------------------|---------------------|---------------------|----------------------------------|
| Quality of Teaching              | Pearson Correlation | 1                   | -.151                            |
|                                  | Sig. (2-tailed)     |                     | .107                             |
|                                  | N                   | 116                 | 116                              |
| Effectiveness of online teaching | Pearson Correlation | -.151               | 1                                |
|                                  | Sig. (2-tailed)     | .107                |                                  |
|                                  | N                   | 116                 | 116                              |

From the above table, it is observed that the significant value is 0.107 which is more than 0.05. to reject the null hypothesis. Hence there is a significant relationship between the quality of teaching and the effectiveness of online teaching.

## CONCLUSION

Education is an enviable part of a human being now a day. It helps the people to be civilized and learning things to the needs of the current and modern world. Education is an investment to every learner to equip themselves and survive. The penetration of the internet in nook and corners make the people access facility of learning things through online. At the same time, still, there is a problem in semi-urban areas in accessing the internet facilities thereby it will be difficult for many of the students to continue their learning. Also, the students from semi-urban backgrounds can enrich their knowledge better in classroom education than in online education. The teachers have to understand the practical difficulties faced by the students and while teaching the teacher tries to focus more on the students who come from the extreme semi-urban environment. The pace of coverage of portions may be decreased and in-depth teaching may be concentrated to uplift the life of students in semi-urban areas.

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