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CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

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A STUDY ON THE EFFECTIVENESS OF VIRTUAL TEACHING-LEARNING PRACTICE AMONG ENGINEERING STUDENTS

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ABSTRACT

Virtual learning is a learning experience that is enhanced by using computers and the internet both outside and inside the facilities of the educational organization. The main objective of the study is to identify the virtual teaching-learning dimensions and its impact on students' satisfaction. The researchers used reliability analysis, multiple regressions and factor analysis for data analysis. The scope of the study is confined only to the students' perception about online teaching learning process exercised by faculty members during the lock down period owing to the wake of COVID 19 across the country. This study was conducted from the end of March 2020 to April 2020. This study identified five dimensions of virtual teaching learning practices. They were: Course Delivery, Course Content, Fairness in Evaluation, Faculty-Student Interaction and Responsiveness. This study found that Course Delivery, Course Content, Faculty-Student Interaction and Responsiveness have significant influence on students' satisfaction. This study finding would help the policy makers to formulate suitable policies relating to Virtual teaching learning practices.

KEYWORDS

virtual teaching, virtual learning, course delivery, students' satisfaction.

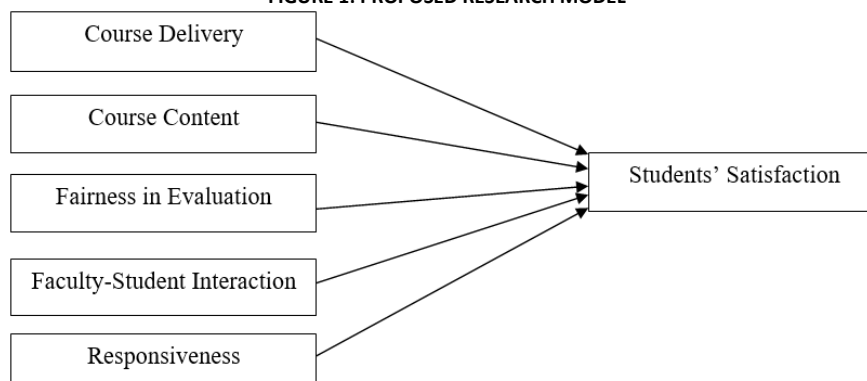
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INTRODUCTION

The rapid development of Information Technology, Internet and Web resources have brought significant changes in the quality of teaching and teaching learning process. Virtual learning is a learning experience that is enhanced by using computers and the internet both outside and inside the facilities of the educational organization. The teaching activities are carried out online whereby the teacher and learners are physically separated. Further, this method enables the faculty and students' flexibility in terms of choosing convenient time and place. Most of the educational institutions have started to engage their students through virtual learning methods with the support of their faculty members during the lock down period owing to the wake of COVID 19 across the country. This virtual learning method is not something new for many academic institutions especially in foreign countries. However, these virtual teaching methods were analysed and highly criticised by several researchers. It generally lacks the direct interaction between the teacher and the students. Technology plays an influential part in our everyday lives (Contact North, 2012), transforming various aspects of human life including the way that we learn. (Prensky, 2010). Several studies have been conducted with regard to students' satisfaction in different countries like Australia, the UK, Ireland, Italy, Malaysia, Portugal, Romania, Spain and UAE. (Alves and Raposot 2007; Campana et.al., 2016; Fernandes et.al., 2013; Lai et.al., 2015). Several studies have examined factors that affect student satisfaction in Colleges. (Arambewela et.al., 2005; Forrester, 2006; Mai 2005; Mavondo et.al., 2004). As many studies were conducted only in foreign countries, the researchers intended to conduct the study in Indian context.

FIGURE 1: PROPOSED RESEARCH MODEL



OBJECTIVES OF THE STUDY

Based on the proposed research model, the objectives of the study are confined:

1. To identify the virtual teaching learning dimensions
2. To investigate the effect of virtual teaching learning on student’s satisfaction as perceived by students

RESEARCH METHODOLOGY

This study is a cross-sectional research. The scope of the study is confined only to the students’ perception about virtual teaching learning process exercised by faculty members during the lock down period owing to the wake of COVID 19 across the country. This study was conducted from the end of March 2020 to April 2020. The researchers identified 300 Engineering students and collected the data by sending the questionnaire through Google forms. The questionnaire consists of three parts. The first part deals with demographic profile of the students, second and third part deals with independent and dependent variables. The researchers adopted convenience sampling method. Even though researchers sent 300 questionnaires they received only 150 valid responses. Therefore, the response rate of the study is 50 percent.

PROPOSED HYPOTHESES

- H0₁: Course delivery will have no significant impact on student’s satisfaction in virtual teaching learning.
- H0₂: Course Content will have no significant impact on student’s satisfaction in virtual teaching learning.
- H0₃: Fairness in Evaluation will have no significant impact on student’s satisfaction in virtual teaching learning.
- H0₄: Faculty-Student Interaction will have no significant impact on student’s satisfaction in virtual teaching learning.
- H0₅: Responsiveness will have no significant impact on student’s satisfaction in virtual teaching learning.

DATA ANALYSIS

DEMOGRAPHIC PROFILE OF THE STUDENTS

A total of 150 respondents were considered for the study in which 60 percent of the students were male students and 40 percent were female students. 80 percent of the students were between 18 to 22 years old. With reference to students’ domain, 85 percent of the respondents were B.E. students and 15 percent were B.Tech. students. Out of this study, 40 percent of the respondents were hostellers and 60 percent of the students were day-scholars.

FACTOR ANALYSIS

Before analysing the data, the researchers examined the reliability of the data by administering Cronbach Alpha. This data has adequate reliability (Cronbach Alpha 0.864). The Kaiser-meyer olkin (KMO=0.866) was used to determine the appropriateness of applying factor analysis, values above 0.5 for the factor matrix were appropriated (Hair et.al., 1988). Table 1 reveals the structure of the factors. They are: Course Delivery, Course Content, Fairness in Evaluation, Faculty-Student Interaction and Responsiveness.

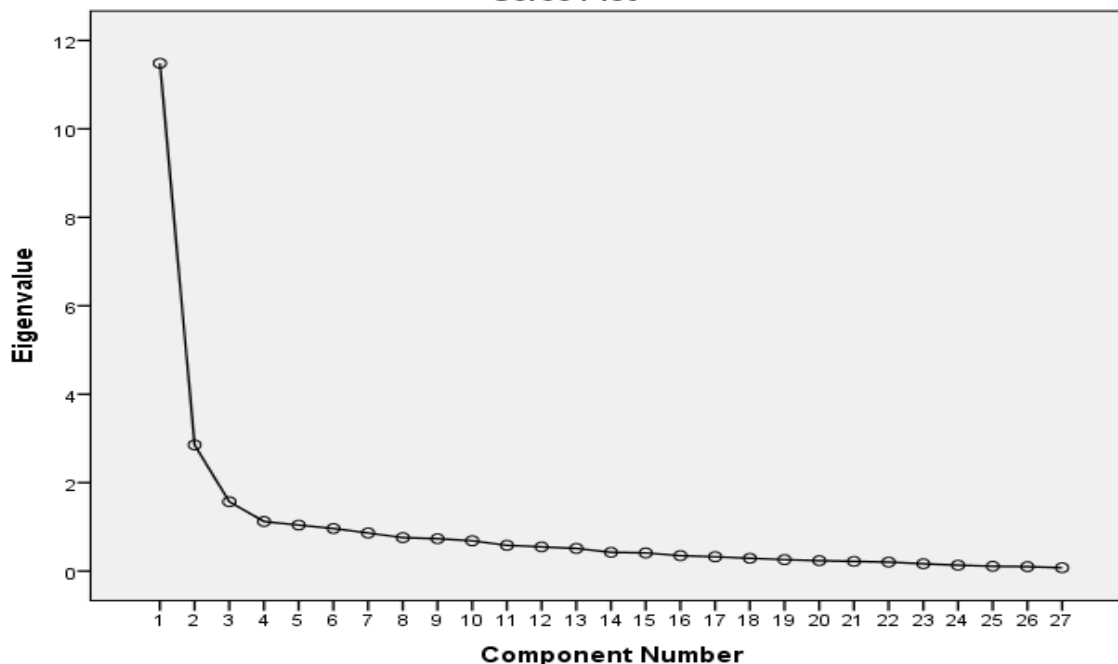
The Bartlett test of sphericity was 1736.623 significant at P<0.000 which revealed significant correlation among the factors. The first factor labelled as Course Delivery consists of 5 variables. This factor accounted for 21.420 percent of the variance. Factor two is Course Content and it also consists of 5 variables. Factor three is named as Fairness in Evaluation which consists of 4 variables. The fourth and fifth factors are Faculty-Student Interaction and Responsiveness, respectively. All the five factors were explained 66.916 percent of the variance.

TABLE 1: VIRTUAL TEACHING LEARNING DIMENSIONS

Sl. No.	Virtual teaching learning Factors	No. of variables included	Eigen Value	Percentage of variance explained	Cumulative percentage of variance
1	Course Delivery	5	11.484	21.420	21.420
2	Course Content	5	2.854	18.687	40.107
3	Fairness in Evaluation	4	1.568	10.146	50.252
4	Faculty Student Interaction	4	1.121	8.936	59.188
5	Responsiveness	4	1.041	7.729	66.916
KMO measures of sampling Adequacy =.866				Bartlett’s Test of sphericity = 1736.623	

The scree test (Cattell, 1966) which plots the eigen values against a number of components. This is shown in Figure 2.

**FIGURE 2
Scree Plot**



IMPACT OF VIRTUAL TEACHING-LEARNING ON STUDENTS' SATISFACTION

In order to find the impact of virtual teaching learning on students' satisfaction, multiple regression analysis was used. This study considers Course Delivery, Course Content, Fairness in Evaluation, Faculty-Student Interaction and Responsiveness as independent variables, students' satisfaction as dependent variable. Table - 2 shows the results of regression analysis of online teaching.

TABLE 2: IMPACT OF VIRTUAL TEACHING LEARNING ON STUDENTS' SATISFACTION

S. No.	Independent variables	Standardised Coefficients Beta	t	Sig
1	Constant	-	3.154	.002
2	Course Delivery	.274	4.974	.000*
3	Course Content	.225	4.515	.000*
4	Fairness in Evaluation	.032	.676	.501
5	Faculty-Student Interaction	.302	5.213	.000*
6	Responsiveness	.254	4.966	.000*
R square				.811
Adjusted R square				.806
F statistics				180.614
Significance				.000

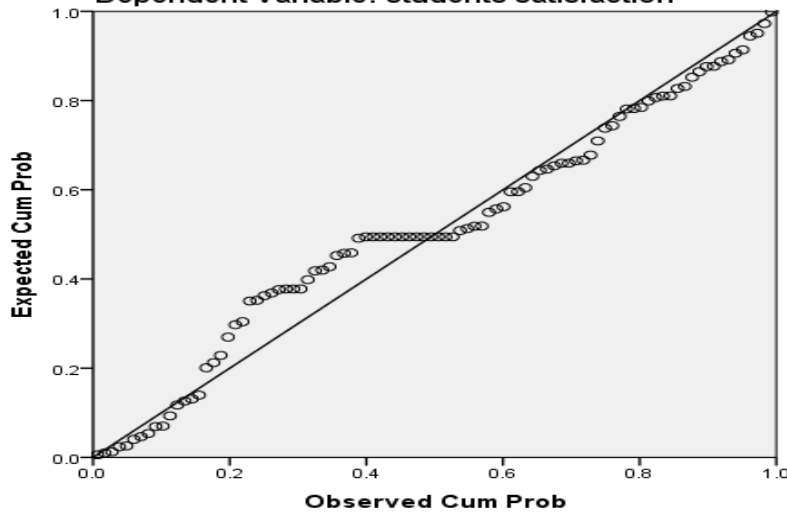
*- significant at 1 percent level

LINEARITY BETWEEN THE VARIABLE

The following figure exhibits the linearity between the variables.

FIGURE 3

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: students satisfaction



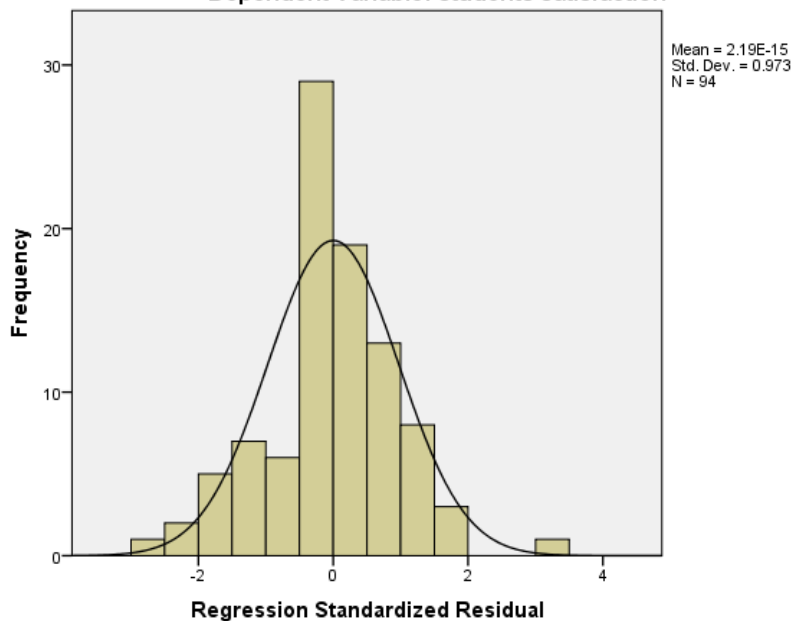
NORMALITY OF THE DATA

The following figure reveals the normality of the data.

FIGURE 4

Histogram

Dependent Variable: students satisfaction



The results for virtual teaching learning indicate that R^2 is equal to 0.811. This reveals that 81.1 percent of variance in students' satisfaction is explained by all independent variables. F statistics is 180.614 which is significant at 1 percent level. The results show that Faculty-Student Interaction has a positive impact on students' satisfaction. ($\beta = 0.302, t = 5.213, p < 0.01$), followed by ($\beta = 0.274, t = 4.974, p < 0.01$), Responsiveness ($\beta = 0.254, t = 4.966, p < 0.01$) Course Content ($\beta = 0.225, t = 4.515, p < 0.01$). This study found that Fairness in Evaluation does not have any influence on students' satisfaction. Therefore, this study rejects all the hypotheses, except Fairness in Evaluation.

CONCLUSION

The main objective of the study is to identify the virtual teaching learning dimensions and its influence on students' satisfaction. The researchers used reliability analysis, multiple regression and factor analysis for data analysis. This study identified five dimensions of virtual teaching learning. They were: Course Delivery, Course Content, Fairness in Evaluation, Faculty-Student Interaction and Responsiveness. This study found that Course Delivery, Course Content, Faculty-Student Interaction and Responsiveness have significant influence on students' satisfaction. This study finding would help the policy makers to formulate suitable policies relating to virtual teaching learning. This study has been carried out in Tamil Nadu State. Therefore, it opens doors to open similar studies in other states.

REFERENCES

1. Alves, H. and Raposot, M. (2007), "Student satisfaction index in Portuguese public higher education", *The Service Industries Journal*, Vol. 27 No. 6, pp. 795-808.
2. Arambewela, R., Hall, J. and Zuhair, S. (2005), "Postgraduate international students from Asia: factors influencing satisfaction", *Journal of Marketing for Higher Education*, Vol. 15 No. 2, pp. 105-127.
3. Campaña, J.C., Gimenez-Nadal, J.I. and Molina, J.A. (2016), "The satisfaction of university students in Spain: differences by field of study", *Applied Economics Letters*, Vol. 23 No. 7, pp. 506-509.
4. Cattell, R.B. (1966), "The scree test for the number of factors", *Multivariate Behavioral Research*, Vol. 1, pp. 629-637.
5. Contact, North. (2012). Online learning in Canada: At a tipping point: A cross-country check-up. Récupéré sur le site http://teachonline.ca/sites/default/files/pdf/innovation_practices/onlinelearningincanadareport_june_12_2012.pdf.
6. Fernandes, C., Ross, K. and Meraj, M. (2013), "Understanding student satisfaction and loyalty in the UAE HE sector", *International Journal of Educational Management*, Vol. 27 No. 6, pp. 613-630.
7. Forrester, S. (2006), "An examination of the factors contributing to student satisfaction with their overall academic experience", *Schole: A Journal of Leisure Studies & Recreation Education*, Vol. 21, pp. 21-34.
8. Hair, J.F.J., Anderson, R.E., Tatham, R.L. and Black, W.C. (1998), *Multivariate Data Analysis*, Maxwell Macmillan International, New York, NY.
9. Lai, M.M., Lau, S.H., Mohamad Yusof, N.A. and Chew, K.W. (2015), "Assessing antecedents and consequences of student satisfaction in higher education: evidence from Malaysia", *Journal of Marketing for Higher Education*, Vol. 25 No. 1, pp. 45-69.
10. Mai, L. (2005), "A comparative study between UK and US: the student satisfaction in higher education and its influential factors", *Journal of Marketing Management*, Vol. 21 Nos 7/8, pp. 859-878.
11. Mavondo, F.T., Tsarenko, Y. and Gabbott, M. (2004), "International and local student satisfaction: resources and capabilities perspective", *Journal of Marketing for Higher Education*, Vol. 14, No. 1, pp. 41-60.
12. Prensky, M. (2010). *Teaching digital natives: Partnering for real learning*. Thousand Oaks, CA: Crownin.

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