

# A bird's eye view on finding out the effectiveness of services provided in e-education for professional institutes of Satara district

Smita Pradip Patil, Sonali Vishal Patil, Dr. P. C. Shetiye, Dr. Milind J. Joshi  
Department of Computer Science, Shivaji University Kolhapur, [M.S.], India.  
M.C.A. department, Government College of Engineering, Karad, [M.S.], India  
M.C.A. department, Government College of Engineering, Aurangabad, [M.S.], India  
Shivaji University, Kolhapur, [M.S.], India.

## Abstract

This study investigates the effectiveness of services provided in e-education for professional institutes in Satara district. In the professional institutes, the issue of utilizing modern information and communication technologies (ICT) for teaching and learning is very important [3]. In this study, survey method was adopted and the questionnaire was used for data collection. The finding showed that effectiveness of services provided in e-education among the students and teacher was good. The survey reveals the fact that 85.6% students and teachers were using e-education services. Most of the students and teachers using e-education service for student administrative service, library service, and e-mail system and learning management system effectively. It looks at the different professional sector of the institutes, factors forces to use e-educational services and services offered by e-education.

**Keywords: e-education, professional institutes, Satara district, information and communication technologies**

## I. INTRODUCTION

The nature of e-education and argues for its centrality to educational diversity [2]. E-education is pure service provider which includes web portals, web resources, web based courses, web conferencing tools, wireless solutions, and heterogeneous technologies. Education is a pure service sector, which is characterized by intangibility, inseparability, heterogeneity and perish ability[1]. In this 21st century high results cannot be achieved in learning and educational process without integrating new information and communication technologies in the education system. In the age of globalization and technological revolution, Life-long learning is quickly becoming an imperative in today's world. E-educational services make traditional form of education more interesting and practical in nature [2].

### A. Why we need e-educational services?

E-education as a service provider, then, can be said to be fulfilling the need for learning, acquiring knowledge-providing an intangible benefit (increment in knowledge, professional expertise, skills) produced with the help of a set of tangible (infrastructure) and intangible components (faculty expertise and learning) [1]. An E-educational service has become a pivotal part of the global education experience. Through compelling e-resources, including video, interactive and virtual reality simulations, today's students and teachers benefit from learning that is powerful, engaging and accessible [6]. Students, teachers and professional learners now expect a high quality online experience [9].

### B. Where to use e-educational services?

E-educational services has opened up new opportunities for professional institutes, employers and industry to offer more powerful and engaging learning experiences that attract and retain students, support business objectives and deliver long-term commercial value[7]. Effectiveness of services provided in the e-education can occur anywhere including homes, work, office, institutes, court, hospital, schools, fast-food restaurants, any organization, or on any other place. Any age group person uses e-education in home for increasing knowledge, self confidence, and behavior in society by taking admission to different online courses in e-education according to their needs.

### C. Satara District

Satara district is a district of Maharashtra state in western India with an area 10,480km<sup>2</sup> and population of 2,808,994 (2001). Satara district consist of four sub-division namely Satara, Wai, Karad and Phaltan divided into 11 talukas. These are Satara, Karad, Wai, Mahabaleshwar, Phaltan, Man, Khatav, Koregaon, Patan, Jaoli and Khandala. Satara district has many professional institutes such as Engineering colleges (8), Polytechnic (18), Medical and related colleges (12), Management institutes (9), Law colleges (3) which is shown in TABLE I.

**TABLE-I**  
**PROFESSIONAL INSTITUTES IN SATARA DISTRICT**

Taluka	Professional Institutes in Satara District				
	Engineering Colleges	Polytechnic	Medical & Related Colleges	Management Institutes	Law Colleges
Satara	4	7	3	4	1
Karad	2	5	7	5	1
Wai	0	0	0	0	0
Mahabaleshwar	0	0	1	0	0
Phaltan	1	1	0	0	1
Man	0	1	0	0	0
Khatav	0	2	1	0	0
Koregaon	0	0	0	0	0
Patan	0	1	0	0	0
Jaoli	0	0	0	0	0
Khandala	1	1	0	0	0
<b>Total</b>	<b>8</b>	<b>18</b>	<b>12</b>	<b>9</b>	<b>3</b>

## II. OBJECTIVES

To find out the effectiveness of services provided in e-education this will be used by the student and teachers in professional institutes..

## III. SCOPE, LIMITATION AND METHODOLOGY

The methodology adopted for the data collection purpose was survey, contact and questionnaire based. The scope of the sample is teaching staff and students from 50 professional institutes in Satara district. A Satara district as a bird eye view sample was chosen due to lack of resources to reach to every professional institutes in India, however author wish to find awareness on state or national level. A sample size of (381) students out of (41817) students and sample size of (319) teachers out of (1876) teachers was selected through stratified random sample methodology, further structured questionnaire, website links, institutes websites, survey method and contact method was used to collect data mentioned in TABLE-I. Percentage analysis methodology was used to analyze the obtained data and descriptive analysis methodology was adopted to interpret the results.

## IV. DATA ANALYSIS AND RESULT

### 1. Respondents Occupation:

**TABLE-II**  
**OCCUPATION OF RESPONDENTS**

Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Student	381	54.4	54.4	54.4
Teacher	319	45.6	45.6	100.0
Total	700	100.0	100.0	

It is observed from the above table that the total numbers of respondent are 700 out of 54.4% of the respondent are Students and 45.6% are Teachers.

## 2. Using E-Education services:

**TABLE-III**  
**USING E-EDUCATION SERVICES**

		Using E-Education Services		Total
		Yes	No	
Occupation	Student	364	17	381
		95.5%	4.5%	100.0%
	Teacher	235	84	319
		73.7%	26.3%	100.0%
Total		599	101	700
		85.6%	14.4%	100.0%

It is found from above table that, majority of respondent 85.6% uses e-education services and only 14.4% are not uses e-education services. Majority of the students 95.5% are uses e-education services and only 4.5% students are not uses e-education services whereas majority of the teachers 73.7% are uses e-education services and only 26.3% teachers are not uses e-education services.

## 3. E-Education services offered:

**TABLE-IV**  
**E-EDUCATION SERVICES OFFERED**

		Occupation				Total	
		Student		Teacher			
Services Provided by e-Education	Student administrative services (official grades, registration etc)	82	21.50%	30	12.70%	112	18.20%
	Library Services	81	21.30%	28	11.90%	109	17.70%
	Course or Learning Management System	73	19.20%	8	3.40%	81	13.10%
	Email System	67	17.60%	87	36.90%	154	25.00%
	Campus Information	57	15.00%	8	3.40%	65	10.50%
	Payment for things on campus	0	0.00%	26	11.00%	26	4.20%
	Download or stream course lectures	21	5.50%	49	20.80%	70	11.30%
Total		381	100.00%	236	100.00%	617	100.00%

It is found from above table that services offered in e-education used by students are 21.5% student administrative services (official grades, registration etc.), 21.3% library services, 19.2% course or learning management system, 17.6% email system, 15% campus information and 5.5% download or stream course lectures only payment for things on campus not used any of the student whereas services offered in e-education used by teachers are 18.2% student administrative services (official grades, registration etc.), 17.7% library services, 13.1% course or learning management system, 25% email system, 10.5% campus information and 11.3% download or stream course lectures only 4.2% of teachers used payment for things on campus.

## 4. Factor forces to use e-Education:

It is found that factor forces to use e-education to students are 29.1% flexible schedule and accessibility, 58.3% enhance your educational level, 10.5% unable to manage to go to regular and only 2.1% unable to leave current whereas factor forces to use e-education to teachers are 73.3% flexible schedule and accessibility, 16.5% enhance your educational level, 7.6% unable to manage to go to regular and only 2.5% unable to leave current as shown in following table TABLE-V.

**TABLE-V  
FACTOR FORCES TO USE E-EDUCATION**

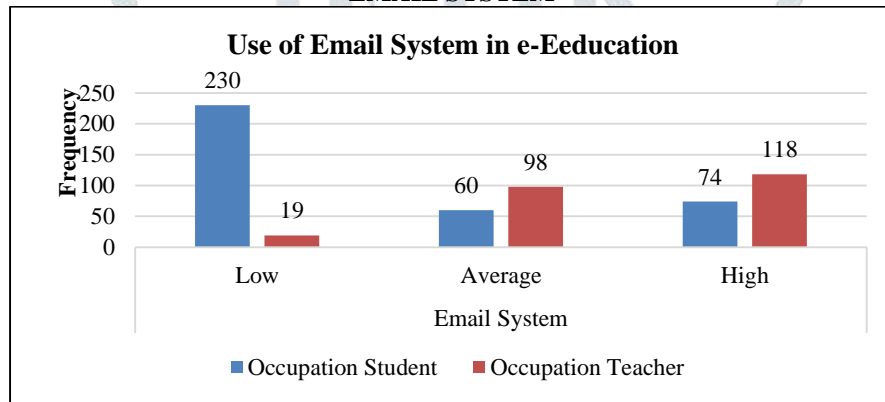
		Factor forces to use e-Education				Total
		Flexible schedule and accessibility	Enhance your educational level	Unable to manage to go to regular	Unable to leave current	
Occupation	Student	111 29.1%	222 58.3%	40 10.5%	8 2.1%	381 100.0%
	Teacher	173 73.3%	39 16.5%	18 7.6%	6 2.5%	236 100.0%
Total		284 46.0%	261 42.3%	58 9.4%	14 2.3%	617 100.0%

**5. Web Portal Available:**

It is found that, all the student and teacher are of the opinion that e-portals are available.

**6. Email System:**

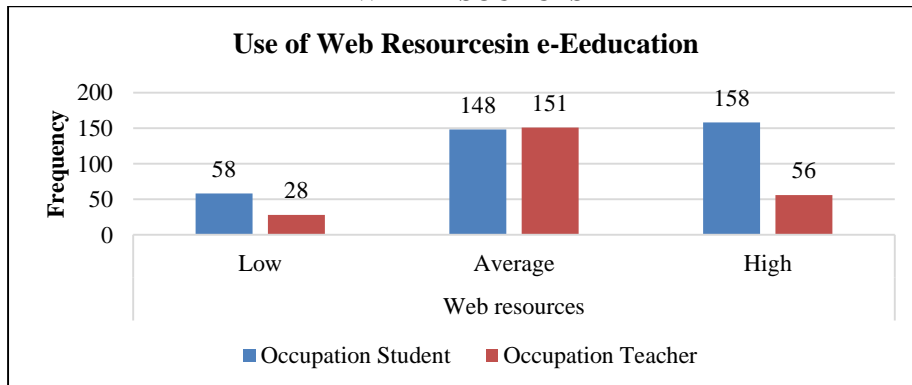
**GRAPH-I  
EMAIL SYSTEM**



It is observed from above graph that majority of the students 63.2 % ( 230) are uses email system at low scale in e-education services, 16.5%(60) student uses averagely and only 20.3%(74)student’s uses email system at high scale in e-education services whereas a very small number of the teachers 8.1% (19) are uses email system at low scale in e-education services, 41.7% (118) teachers uses averagely and majority of 50.2% ( 235) teacher’s uses email system at high scale in e-education services.

**7. Web Resources**

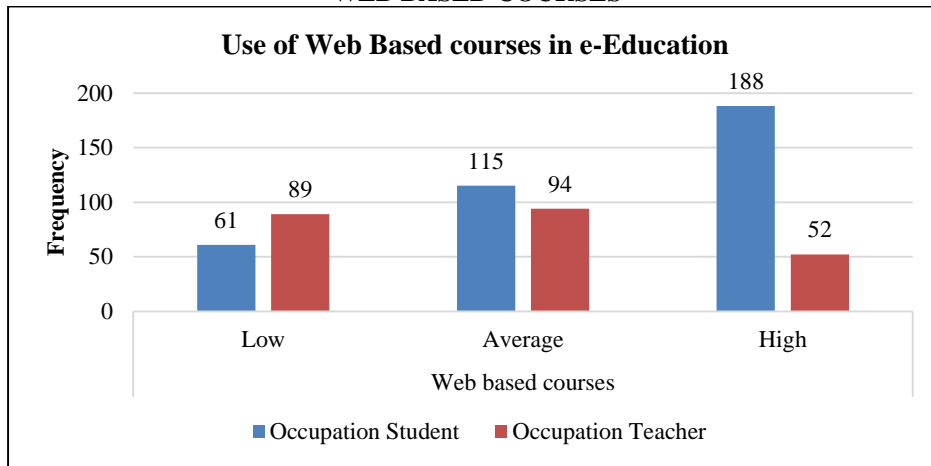
**GRAPH-II  
WEB RESOURCES**



It is observed from above graph that only 15.9% (58) of the student’s uses web resources at low scale in e-education services, 40.7% (148) student uses averagely and 43.4% (158) student’s uses web resources at high scale in e-education services whereas a very small number of the teachers 11.9% (28) are uses web resources at low scale in e-education services, 64.3% (151) teachers uses averagely and 23.8% (56) teacher’s uses web resources at high scale in e-education services.

8. Web Based Courses:

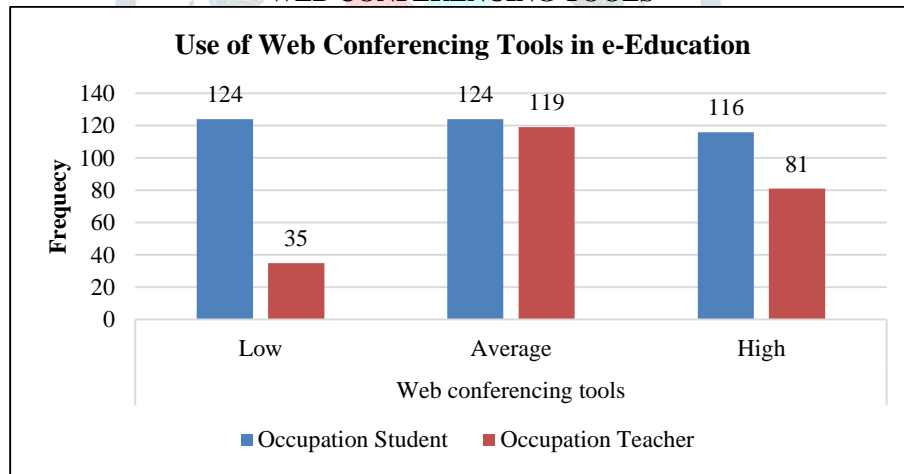
**GRAPH-III  
WEB BASED COURSES**



It is observed from above graph that only 16.8% (61) of the student’s uses web based courses at low scale in e-education services, 31.6% (115) student uses averagely and majority of 51.6% (188) student’s uses web based courses at high scale in e-education services whereas 37.9% (89) of the teachers uses web based courses at low scale in e-education services, 40% (94) teacher’s uses averagely and 22.1 (52) % teacher’s uses web based courses at high scale in e-education services.

9. Web Conferencing Tools

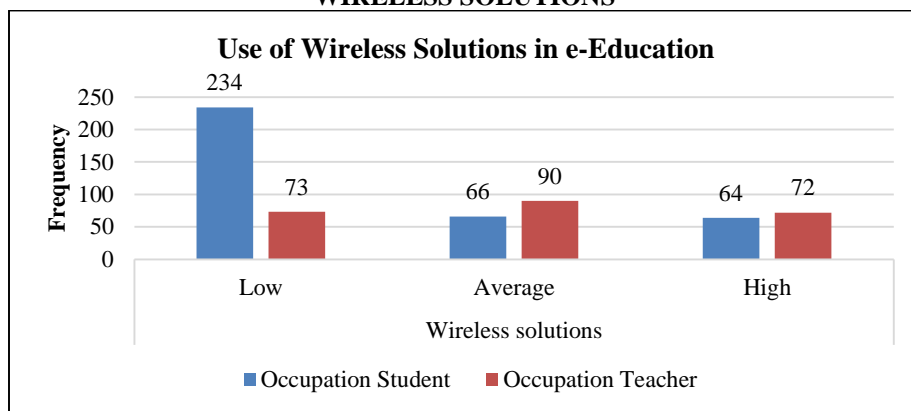
**GRAPH-IV  
WEB CONFERENCING TOOLS**



It is observed from above graph that 34.1% (124) of the student’s uses web conferencing tools at low scale in e-education services, 34.1% (124) student uses averagely and 31.9% (116) student’s uses web conferencing tools at high scale in e-education services whereas A very small number of the teachers 14.9% (35) are use web conferencing tools at low scale in e-education services, 50.6% (119) teachers uses averagely and 34.5% (81) teacher’s uses web conferencing tools at high scale in e-education services.

10. Wireless Solutions:

**GRAPH-V**  
**WIRELESS SOLUTIONS**



It is observed from above graph that majority of the 64.3% (234) student’s uses wireless solutions tools at low scale in e-education services, 18.1% (66) student uses averagely and only 17.6% (64) student’s uses wireless solutions at high scale in e-education services whereas 31.1% (73) teachers uses wireless solutions at low scale in e-education services, 38.3% (90) teacher’s uses averagely and 30.6% (72) teacher’s uses wireless solutions at high scale in e-education services.

11. Technology:

**TABLE-VI**  
**TECHNOLOGY**

		Occupation		Total
		Student	Teacher	
Technology	Low	94	5	99
		25.8%	2.1%	16.5%
	Average	214	195	409
		58.8%	83.0%	68.3%
	High	56	35	91
		15.4%	14.9%	15.2%
Total		364	235	599
		100.0%	100.0%	100.0%

It is observed from above table that only 25.8% (94) student’s uses technology tools and services in e-education at low scale in e-education services, majority 58.8% (214) student uses averagely and only 15.4% (56) student’s uses technology tools and services at high scale in e-education services whereas only 2.1% (5) teacher’s uses technology tools and services in e-education at low scale in e-education services, majority 83.0% (195) teachers’ uses averagely and only 14.9% (35) teacher’s uses technology tools and services at high scale in e-education services.

**V. SUGGESTION**

Based on result and discussion regarding study, it is important to highlight many suggestions, which could have a positive impact on the effectiveness of services in e-education at professional institute. The institute has to provide internet service to students and teachers with enough computer devices to increase effectiveness of e-educational services. A modern electronic library and dedicated classrooms with all types of equipment, tools and technologies needed are also necessary to increase effectiveness of e-educational services instead of coming to the main campus. Conducting online training and seminars regularly is important, for teachers, in particular, to support the application of e-education, in addition to constant attention to IT infrastructure and periodic maintenance of computers and supporting equipment. In addition to all of this, the role and importance of focusing on many things related to the factors forces to use services of e-education, such as the flexible schedule, accessibility, enhancing educational level etc.

**VI. CONCLUSION**

The overall result of the study indicates that the effectiveness of services in e-education system in professional institutes was good. There is awareness about e-education among the users in regard to the effective usage of e-education services. Study shows that majority of teachers and students use student administrative services, e-mail system and library services of e-education. It is concluded from study that students forced by flexible schedule and accessibility and enhance your educational level whereas the teachers are forced by the factor flexible schedule and accessibility. Most of the students and teachers teacher’s uses technology tools and services at average scale in e-education services.

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