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Impact of e learning on teacher effectiveness

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Abstract
Education in the digital world of today can actually make a meaningful shift by ensuring that if students do not learn the way they are taught, they can be taught the way they learn. This pedagogical shift, when integrated into educational software and appropriate technology, can make learning exciting and enjoyable while securing successful learning outcomes in shorter time frames. Colleges and universities globally tend to use asynchronous or delayed technologies with an instructor as the basis of e-learning and thereby include tools like online discussion forums, electronic books, online examinations and grading, online mentoring, web-linked etc. As the 11th plan approach paper states: The 11th plan provides an opportunity to restructure policies to achieve a new vision of growth that will be much more broad based and inclusive, it recognizes that Information and Communication Technology (ICT) has a great potential for enhancing learning levels and improving quality of education. E-learning is the new wave in learning strategy. Through innovative use of modern technology, e-learning not only revolutionizes education and makes it more accessible, but also brings formidable challenges to the instructors and learners. (Shu-Sheng Liaw, 2007). E-learning environments increasingly serve as important infrastructural features of universities that enable teachers to provide students with different representations of knowledge and to enhance interaction between teachers and students and amongst student themselves. (Mahdizadeh. H et. al. 2007). In such a scenario there is need to find out the impact of E learning on Teacher Effectiveness. The study revealed that The teachers working in universities and colleges differ significantly with respect to teacher effectiveness as the mean difference of the teachers working in universities are more than the teachers working in colleges. Teachers, differing in their teacher effectiveness have been confirmed on those who have blogs and those who have no blogs. With the help of the mean difference it is understood that the teacher effectiveness, among the teachers who have their own blogs, is more than those who do not have their own blogs. The teachers, differing significantly, in their personal effectiveness have been classified as those who have their own blogs and those who have no blogs. The male and the female teachers differ significantly in their teaching skills. Teachers educational qualification causes the mean difference in teaching skill whereas the variable namely; the teachers' employment status, do not have any such influence on their teaching skill. The teachers with M.E degree differ significantly in their teaching skill with that of teachers with M.Phil degree and Ph.D. degree.

Keywords: E Learning, Teacher Effectiveness, Teaching Skills and Personal Effectiveness

Introduction
Technology offers tremendous opportunities for increasing the effectiveness and efficiency of education. Students, faculty and administrators now use technology extensively in their daily activities and have become reasonably, technologically literate. The trend of using e-learning as learning and teaching tool is now rapidly expanding into education. Many educators and researchers have high hopes for e-learning, believing that it would provide more access to information and communication, and would ultimately lead to a new revolution in education. Modern day learning environments are characterized by their place and time independence, their integrated presentation and communication facilities, and their opportunities for re-use of learning technologies in the form of learning objects. Many researchers claim that technology push will enhance the quality of education; In fact, Clark (1994) argues that the question of whether media or technology will ever influence learning remains open to debate. A well-defendable viewpoint lies not in the media or technology used, because only positive attitudes toward that media or technology can improve the quality of learning or teaching. Thus, understanding users' attitudes toward learning technology, including instructors' and learners' attitudes, enables us to make learning more effective, efficient, and appealing. Among the various theoretical models developed to examine users' intentions of using computer and communication technology, perceived usefulness is a key to influence behavioral intentions (Gefen & Straub, 1997; Liaw & Huang, 2003; Moon & Kim, 2001; Szajna, 1996; Taylor & Todd, 1995; Vankatesh & Davis, 1996; Vankatesh, 1999). This necessitated the researcher to measure the impact of e-learning on teacher effectiveness.

Teacher Effectiveness

In this research the concept teacher effectiveness was identified with reference to three dimensions namely personal effectiveness, teaching skills and research and other academic activities of teachers in relevance to the use of various electronic media.

The dimension personal effectiveness, consists of the factors pride, prestige, self learning capabilities, soft skills and problem solving skills of the teachers.

The dimension teaching skills consist of the factors preparing teaching materials, interactivity between teacher and learner, linguistic capabilities and evaluating learners performance.

Impact

Impact is a forceful consequence-The strong effect exerted by one person or thing on another it is a force, impression, influence, repercussion. Or it has a forceful consequence or a strong effect. For example the book had an important impact on my thinking.

Teachers of Higher Education

Teacher's in this study refers to the Teachers working in Colleges of Engineering and Technology and University Departments.

Objectives of the Study

1. To find out the distribution of the scores of teacher effectiveness of teachers', the teachers' personal effectiveness, and teaching skill of teachers'.
2. To find out whether there is any significant relationship between the teacher effectiveness and the selected background variables namely
    a. Gender
    b. Educational Qualification
    c. Employment status
    d. Type of Institution
    e. Department
    f. Experience of Teachers
    g. E-mail ID
    h. Knowledge in Computer
    i. Course attended in Computer
    j. Access to Net
    k. Blogs
3. To find out whether there is any significant relationship between the personal effectiveness and the Teaching Skills of teachers and the background variables namely
    a. Gender
    b. Educational Qualification
    c. Employment status
    d. Type of Institution
    e. Department
    f. Experience of Teachers
    g. E-mail ID
    h. Knowledge in Computer
    i. Course attended in Computer
    j. Access to Net
    k. Blogs

Hypotheses of the Study

1. The distribution of the scores of teacher effectiveness of teachers', the teachers' personal effectiveness, teaching skill of teachers', teachers' research and other academic activity, and teachers' ICT familiarity do not form a normal distribution.
2. To find out whether there is any significant relationship between the teacher effectiveness and the background variables namely
    a. Gender
    b. Educational Qualification
    c. Employment status
    d. Type of Institution
    e. Department
    f. Experience of Teachers
    g. E-mail ID
    h. Knowledge in Computer
    i. Course attended in Computer
    j. Access to Net
    k. Blogs
3. To find out whether there is any significant relationship between the personal effectiveness, Teaching Skills of teachers and the background variables namely
    a. Gender
    b. Educational Qualification
    c. Employment status
    d. Type of Institution
    e. Department
    f. Experience of Teachers
    g. E-mail ID
    h. Knowledge in Computer
    i. Course attended in Computer
    j. Access to Net
    k. Blogs

Tools Used in the Study

In order to study the impact of e-learning on teacher effectiveness, three different tools were used along with the personal data sheets to obtain the general information about the subjects and their access to ICT.

The tool entitled "Impact of e-learning on the Teacher's of Higher Education (IELTH) consists 30 statements with their dimensions:

(i) Personal effectiveness with 10 statements
(ii) Teaching skill with 13 statements

The tool is of a five point scale with a maximum score of 150 and a minimum of 30.

Reliability

The Reliability co-efficient of the tool was found by using split half-method, which was found to be 0.68.

Total Distribution of the Scores of Dependent and Independent Variables

The descriptive measures used for each distribution comprises of the measures of central tendency, the mean, median and mode; measures of variability-standard deviation, standard errors of mean and standard deviation of co-efficients of skewness and kurtosis. (Table 4.1)

The teacher effectiveness of teachers' is found to form a normal distribution with a mean of 130.06 and a standard deviation of 7.46 The coefficient of skewness of the distribution is found to be -0.08, which is negatively skewed and consequently the scores are amassed at the right end of the distribution. The coefficient kurtosis of the distribution is found to be -0.15 which is a leptokurtic distribution.

The teachers' personal effectiveness is found to form a normal distribution with a mean of 42.95 and a standard deviation of 3.29. The coefficient of skewness of the distribution is found to be -0.23, which is negatively skewed and consequently the scores are amassed at the right end of the distribution. The

coefficient kurtosis of the distribution is found to be -0.51 which is a platykurtic distribution.

The Teaching skill of teachers' towards e-learning is found to form a normal distribution with a mean of 56.37 and a standard deviation of 4.26. The coefficient of skewness of the distribution is found to be -0.52, which is negatively skewed and consequently the scores are amassed at the right end of the distribution. The coefficient kurtosis of the distribution is found to be-0.03 which is a leptokurtic distribution.

The teachers' research activity is found to form a normal distribution with a mean of 30.77 and a standard deviation of 2.64 The coefficient of skewness of the distribution is found to be -0.33, which is negatively skewed and consequently the scores are amassed at the right end of the distribution. The coefficient kurtosis of the distribution is found to be -0.46 which is a platykurtic distribution.

The teachers' ICT Familiarity is found to form a normal distribution with a mean of 15.64 and a standard deviation of 1.98 The coefficient of skewness of the distribution is found to be -0.42, which is negatively skewed and consequently the scores are amassed at the right end of the distribution. The coefficient kurtosis of the distribution is found to be -0.08 which is a leptokurtic distribution.

Table: 4.1 Total Distribution of the Scores of Dependent and Independent Variables

Variables	Mean	Std. Error Mean	N	SD	Skew	Kurt
Teacher effectiveness	130.06	0.47	255	7.46	-0.08	-0.15
Personal effectiveness	42.95	0.21	255	3.29	-0.23	-0.51
Teaching skill	56.37	0.27	255	4.26	-0.52	-0.03
ICT Familiarity	15.64	0.12	255	1.98	-0.42	-0.08

Teacher Effectiveness and the Variables with two Categories

The mean difference in the teacher effectiveness due to the variable namely, teachers who have blogs and those who do not have, is found to be 2.65 which is significant at 0.01 level for the df 253 as its t-value is computed to be 2.77. Similarly the mean differences in the teacher effectiveness of the variables namely type of institution is 2.04 whose t-value is 1.99 which is significant at 0.05 level for its df 253. (Table 4.2)

In the above cases rejecting the respective null hypotheses, it is concluded that with 95 percent confidence interval that teachers working in universities and colleges differ significantly with respect to teacher effectiveness.

Teachers differ in their teacher effectiveness based on those who have blogs and those who do not have blogs. With the help of the mean difference it is understood that teachers who are having their own blogs are more effective than teachers who do not have their own blogs.

There exists no significant mean difference in the teacher effectiveness of the teachers due to the variables gender, department of working, experience of the teacher, teachers who have e-mail id, teachers who posses knowledge in computer, courses attended in computer and net access as their corresponding t-values are 0.46, 0.53, 0.17, 0.27, 0.05, 0.27 and 0.74 respectively which are not significant at 0.05 level for its df 253. Accepting the respective null hypotheses, it is concluded that there is no significant mean differences in the teacher effectiveness based on the teachers gender, department of working, teaching experience, teachers who have e-mail id, teachers who posses knowledge about computer, teachers who attended courses in computer and net access facility.

Table: 4.2 Teacher Effectiveness and Variables with two Categories

Variables	Type	N	Mean	Std-Devi.	Std-Err mean	Mean Differ	df	t	Sig level
Gender	Male	120	129.83	7.88	0.72	0.43	253	0.46	N.S
	Female	135	130.27	7.10	0.61				
Institution	Uni-depts	173	131.07	7.42	0.56	2.04	253	1.99	0.05
	Colleges	82	129.02	8.13	0.89				
Department	Electrical	130	130.15	7.40	0.65	0.19	253	0.53	N.S
	Non- Elect	125	129.97	7.56	0.68				
Experience	Below 10	182	130.12	7.33	0.54	0.18	253	0.17	N.S
	Above 10	73	129.93	7.82	0.91				
e-mail id	Yes	239	130.03	7.50	0.48	0.53	253	0.27	N.S
	No	16	130.56	7.15	1.79				
Knowledge in Computer	Yes	221	130.07	7.41	0.49	0.07	253	0.05	N.S
	No	34	180.00	7.93	1.36				
Course attended in Computer	Yes	134	130.19	7.86	0.68	0.26	253	0.27	N.S
	No	121	129.93	7.03	0.64				
Blogs	Yes	100	131.87	8.22	0.82	2.65	253	2.77	0.01
	No	155	129.21	6.91	0.55				
Net Access	Institute	119	129.69	7.69	0.70	0.70	253	0.74	N.S
	Both	136	130.39	7.28	0.62				

There exists significant mean differences in the teacher effectiveness with respect to their educational qualifications and employment status for the respective F-values 3.23 and 3.30 which are found to be significant at 0.05 level for the respective df (table 4.3)

Educational qualifications and employment status caused the mean differences in teacher effectiveness.

Making a microanalysis of the significant variables, the significant sub-samples are identified. The significant F-value 3.23 at 0.05 level in the teacher effectiveness with respect to the teacher's educational qualification indicates that there may be atleast one pair, which is significantly different from another. The mean difference between the teachers with degree M.E and Ph.D is found to be significant at 0.01 level for the respective t-value 2.90 for the df 182. Hence the teacher with M.E and Ph.D category differ significantly than the remaining four categories. (Table 4.3A)

The F-value of 3.30 which is significant at 0.05 level in teacher effectiveness with respect of their employment status indicates that there must be atleast one pair which differs significantly from others. The mean difference between the assistant professors and associate professors with respect to teacher effectiveness is found to be significant at 0.05 level for the t-value, namely 2.54 for df 189. The other remaining possible pairs are not significant at 0.05 level. The associate professor category possess the higher mean and standard deviation than the later. It is therefore concluded that the associate professors differ with grater mean gain from assistant professors in their teacher effectiveness.

Table: 4.3 Teacher Effectiveness and Variables with More Than Two Categories

Variables	Sub samples	N		Sum of squares	df	F ratio	Sig level
Educational qualification	B.E M.E M.Phil Ph.D	20 122 51 62	Between groups Within groups Total	566.93 14679.47 15246.40	(3,251)	3.23	0.05
Employment status	Assi-prof Asso-prof professor	97 94 64	Between groups Within groups Total	389.43 14856.9715246.40	(2,252)	3.30	0.05

Table: 4.3 (A) Significant Sub-Samples of Teacher Effectiveness

Variable	Sub-sample	N	Mean	SD	Md	t-value	df	Sig level
Educational qualification	B.E	20	129.45	6.70	Md2,4=3.47	t2,4=2.90	182	0.01
	M.E	122	128.88	7.13				
	M.Phil	51	131.24	7.85				
	Ph.D	62	132.35	8.66				
Employment status	Assist-prof	97	128.77	7.03	Md1,2=2.84	t1,2=2.54	189	0.05
	Associ-prof	94	131.62	8.37				
	Professor	64	130.44	7.54				

Personal Effectiveness and the Variables with two Categories

The mean difference in the personal effectiveness of the subjects, 1.21 caused by teachers who have blogs is significant at 0.01 level for its df 253 as its t-value is computed to be 2.75. Similarly, the mean difference in the personal effectiveness of the subjects caused by the variable, namely, type of institution is 1.10 whose t-value is 2.51, which is significant at 0.05 level for its df 253. (Table 4.4)

Teachers differ significantly in their personal effectiveness based on those who are having their own blogs and do not have their own blogs, the mean difference are supported to teachers those who are having their own blogs.

Rejecting the respective null hypotheses, it is concluded with 95 percent confidence that the teachers working in university departments and colleges differ significantly in their personal effectiveness. The mean difference are in favour of teachers working in university departments, who are having more personal effectiveness than teachers working in colleges.

There exists no significant mean differences in the personal effectiveness of the teachers due to the variables gender, department of working, experience of the teacher, teachers who have e-mail id, teachers who posses knowledge in computer, teachers who have attended courses in computer and teachers who have net access, as their corresponding t-values are 0.67, 0.11, 0.57, 0.09, 0.30, 0.43 and 0.74 are all found to be insignificant at 0.05 level for the respective df 253. Accepting the respective null hypotheses it is concluded that there is no significant mean differences in the personal effectiveness due to gender, department of working, experience of the teacher, teachers who have e-mail id, teachers who possess knowledge in computers, teachers who have attended courses in computer and teachers who have net access facility.

Table: 4.4 Personal Effectiveness and Variables with two Categories

Variables	Type	N	Mean	Std-Devi.	Std-Err mean	Mean Differ	df	t	Sig level
Gender	Male	120	43.10	3.34	0.30	0.28	253	0.67	N.S
	Female	135	47.82	3.26	0.28				
Institution	Uni-depts	173	43.31	3.11	0.23	1.10	253	2.51	0.05
	Colleges	82	42.24	3.54	0.39				
Department	Electrical	130	42.98	3.11	0.27	0.05	253	0.11	N.S
	Non- Elect	125	42.93	3.48	0.31				
Experience	Below 10	182	43.03	3.24	0.24	0.26	253	0.57	N.S
	Above 10	73	42.77	3.44	0.40				
e-mail id	Yes	239	42.95	3.30	0.21	0.02	253	0.09	N.S
	No	16	42.94	3.19	0.80				
Knowledge in Computer	Yes	221	42.92	3.28	0.22	0.22	253	0.30	N.S
	No	34	43.15	3.42	0.58				
Course attended in Computer	Yes	134	43.04	3.54	0.30	0.18	253	0.43	N.S
	No	121	42.86	3.01	0.57				
Blogs	Yes	100	44.48	3.38	0.33	1.21	253	2.75	0.01
	No	155	43.27	3.45	0.27				
Net Access	Institute	119	42.93	3.48	0.32	0.04	253	0.74	N.S
	Both	136	42.97	3.13	0.27				

None of the variables namely, teachers educational qualifications and teachers employment status are found to have significant mean difference at 0.05 level in the personal effectiveness of the teachers as the respective F-values for their mean of teacher effectiveness are computed to be 0.94 and 1.03 respectively for the respective df (Table 4.5).

It is concluded that teachers educational qualifications and their employment status do not have any influence on the teachers personal effectiveness.

Table: 4.5 Personal Effectiveness and Variables with More than two Categories

Variables	Sub samples	N		Sum of squares	df	F ratio	Sig level
Educational qualification	B.E M.E M.Phil Ph.D	20 122 51 62	Between groups Within groups Total	30.78 2724.64 2755.43	(3,251)	0.94	N.S
Employment status	Assi-prof Asso-prof professor	97 94 64	Between groups Within groups Total	22.41 2733.02 2755.43	(2,252)	1.03	N.S

Teaching Skills and Variables with two Categories

The mean differences in the teaching skills of the subjects caused by the variables namely gender, teachers' knowledge in computer and teachers who have blogs are 1.09, 1.59 and 1.12, and the t-values are computed to be 2.05, 2.16 and 2.05 respectively, which are significant at 0.05 level for its df 253. (Table 4.6)

Rejecting the respective null hypothesis, it is concluded with 95 percent confidence that the male and female teachers differ significantly in their teaching skills.

There exists no significant mean difference in the teaching skills of the higher education teachers due to the variables, type of institution, departments of working, experience of the teacher, teachers who have e-mail id, teachers who attended courses in computer and net access as the t-values are 0.85, 0.92, 0.48, 0.18, 0.22 and 0.29 which are not significant at 0.05 level for their df 253. Consequently, it is concluded that there is no significant mean difference in the teaching skills based on the type of institution, departments of working, experience of the teacher, teachers who have e-mail id, teachers who have attended courses in computer and net access facility.

Table: 4.6 Teaching Skill and Variables with two Categories

Variables	Type	N	Mean	Std-Devi.	Std-Err mean	Mean Differ	df	t	Sig level
Gender	Male	120	55.79	4.63	0.42	1.09	253	2.05	0.05
	Female	135	56.88	3.84	0.33				
Institution	Uni-depts	173	56.53	4.25	0.32	0.49	253	0.85	N.S
	Colleges	82	56.04	4.28	0.47				
Department	Electrical	130	56.55	4.36	0.38	0.38	253	0.92	N.S
	Non- Elect	125	56.18	4.16	0.37				
Experience	Below 10	182	56.45	4.34	0.32	0.29	253	0.48	N.S
	Above 10	73	56.16	4.08	0.48				
e-mail id	Yes	239	56.36	4.28	0.27	0.21	253	0.18	N.S
	No	16	56.56	4.02	1.00				
Knowledge in Computer	Yes	221	58.15	4.06	0.27	1.59	253	2.16	0.05
	No	34	56.56	3.72	0.64				
Course attended in Computer	Yes	134	56.43	4.11	0.36	0.12	253	0.22	N.S
	No	121	56.31	4.43	0.40				
Blogs	Yes	100	56.81	4.22	0.34	1.12	253	2.05	0.05
	No	155	55.70	4.26	0.43				
Net Access	Institute	119	56.29	4.02	0.37	0.15	253	0.29	N.S
	Both	136	56.44	4.48	0.38				

There is a significant mean difference in the teaching skill of the teachers with respect to their educational qualifications for the F-value, namely 2.69 is found be significant at 0.05 level for its df (3,251) (Table 4.7)

The remaining variable namely, teachers' employment status is found to be not significant at 0.05 level as their F-value of the mean difference in their teaching skill is computed to be 1.52 for the df (2,252).

Teachers educational qualifications is causing the mean differences in teaching skill whereas the variable namely, teachers employment status do not have any such influence on their teaching skill.

Making a micro analysis of the significant variables the significant sub-samples are identified. The significant F-value, 2.69 at 0.05 level in the teaching skill with respect to their educational qualifications indicates that there may be atleast one pair, which is significantly differ from other. The mean difference are found to be significant at 0.05 level between the teachers with M.E degree and M.Phil degree and the teachers with M.E degree and Ph.D degree, whose t-values are 2.34 and 2.18 respectively for their respective dfs. The remaining pairs are not significant at 0.05 level. Among those two pairs, the highest mean difference exists for the pair of teachers with M.E degree and M.Phil degree with the t-value 2.34 and it is followed by the difference between the teachers with M.E degree and Ph.D degree with the t-value 2.18 for the respective dfs. Hence the teachers with M.E degree is concluded to differ significantly in their teaching skill with that of teachers with M.Phil degree and Ph.D degree. (Table 4.7A)

Table: 4.7 Teaching Skills and Variables with More than two Categories

Variables	Sub samples	N		Sum of squares	df	F ratio	Sig level
Educational qualification	B.E M.E M.Phil Ph.D	20 122 51 62	Between groups Within groups Total	143.95 4469.39 4613.34	(3,251)	2.69	0.05
Employment status	Assi-prof Asso-prof professor	97 94 64	Between groups Within groups Total	54.99 4558.35 4613.34	(2,252)	1.52	N.S

Table: 4.7 (A) Significant Sub-Samples of Teaching Skill

Variable	Sub-sample	N	Mean	SD	Md	t-value	df	Sig level
Educational qualification	B.E	20	56.00	4.32				
	M.E	122	55.66	4.36	Md2, 3=1.61	t2, 3=2.34	171	0.05
	M.Phil	51	57.27	3.56	Md2, 4=1.49	t2, 4=2.18	182	0.05
	Ph.D	62	57.15	4.39				

Findings

The teacher effectiveness among teachers' is found to form a normal distribution with a mean of 130.06 and a standard deviation of 7.46. The teachers' personal effectiveness is found to form a normal distribution with a mean of 42.95 and a standard deviation of 3.29. The Teaching skill of teachers' towards e-learning is found to form a normal distribution with a mean of 56.37 and a standard deviation of 4.26.

Teacher Effectiveness

The teachers working in universities and colleges differ significantly with respect to teacher effectiveness as the mean difference of the teachers working in universities are more than the teachers working in colleges. Teachers, differing in their teacher effectiveness have been confirmed on those who have blogs and those who have no blogs. With the help of the mean difference it is understood that the teacher effectiveness, among the teachers who have their own blogs, is more than those who do not have their own blogs. There is no significant mean difference in the teacher effectiveness, on the basis of gender, departments the belong to, teaching experience, teachers who have e-mail id, teachers who posses knowledge about computer, and teachers who attended courses in computer and net access facility. Educational qualifications and employment status caused the mean differences in teacher effectiveness aspect. The teachers, with M.E and Ph.D category, differ more significantly than the remaining four categories. The associate professors differ with grater mean gain from the Assistant Professors in their teacher effectiveness.

Personal Effectiveness

The mean difference is less in favour of teachers working in the university departments than the teachers working in colleges and the teachers working in university departments are having more personal effectiveness. The teachers, differing significantly, in their personal effectiveness have been classified as those who have their own blogs and those who have no blogs. So, the mean differences indicate that the teachers those who have their own blogs are better in their personal effectiveness. There is no significant mean difference in the personal effectiveness of the teachers classified on gender, department in which they are working, total experience of the teachers, teachers who have e-mail ID, teachers who possess knowledge of computers, and the teachers who have attended courses on computer and net access facility. Teachers educational qualifications and their employment status do not have any influence on the teachers' personal effectiveness.

Teaching Skills

The male and the female teachers differ significantly in their teaching skills. The mean differences are in favour of female teachers who have relatively more teaching skills than the male teachers. Teachers with and without knowledge of computers, differ in their teaching skills. The mean difference is in favour of teachers who possess knowledge of computer. Teaching skills differ among the teachers those who have their own blogs and those who do not have blogs, since the mean differences are in favour of the teachers having their own blogs. There is no significant mean difference in the teaching skills of teachers with regard to the type of institution, departments they work for, experience of the teacher, teachers who have e-mail ID, teachers who have attended courses on computer and net access facility. Teachers educational qualification causes the mean difference in teaching skill whereas the variable namely; the teachers' employment status, do not have any such influence on their teaching skill. The teachers with M.E degree differ significantly in their teaching skill with that of teachers with M.Phil degree and Ph.D. degree.

Conclusions

The scores of teacher effectiveness of the teachers, the teachers personal effectiveness, teaching skill of teachers, teachers research and other academic activities and ICT familiarity all are found to form a normal distribution. Teachers working in the universities and colleges differ significantly with respect to teacher effectiveness, as the teacher effectiveness of the teachers working in the universities is better than the teachers working in the colleges. Teachers who are having their own blogs are more effective than those who do not have their own blogs. The teacher's with M.E and Ph.D category differ significantly in teacher effectiveness. The teachers working in university departments are better in their personal effectiveness than teachers working in the colleges. The teachers those who are having their own blogs are better in their teacher effectiveness. These findings are supported by the following findings: e-learning helps the faculty members to develop better team work and interpersonal skills and deriving benefits of e-learning in both teaching and research (Hamdan Mubarak Al- khashab 2007). Majority of the lecturers surveyed, used e-learning in their teaching practice, for research, and to create teaching materials and lesson plans. (Sarah Golden et al 2006). The female teachers do have relatively better teaching skills than the male teachers. The teachers who possess knowledge in computer have better teaching skills. The teachers, having their own blogs, are better in their teaching skills than the

teachers who do not have blogs. Teachers educational qualifications cause significant difference in the teaching skills whereas the variable, such as teachers employment status do not have any such influence on their teaching skill. The teachers with M.E degree differ significantly in their the teaching skills from the teachers with M.Phil and Ph.D degree.

References

1. Clark,R.E. (1994). Media will never influence e-learning. *Educational Technology Research and Development*, 42(2), 21–29.
2. Deepak,K., Srivastava. (2005). e-learning: A New way of Education. *University News*, 43(26).
3. Gefen,D., Straub,D.W. (1997). Gender differences in the perception and use of e-mail: An extension to the technology acceptance model. *MIS Quarterly*, 21(4), 389–400.
4. Hamdan Mubarak Al-Khashab. (2007). *Attitudes towards e-learning: An Empirical Study in Kuwait.* (Dissertation, Masters of Business Administration (MBA) of the Maastricht School of Management (MSM), Maastricht, the Netherlands).
5. Kuzmicic, A.W. (2006).Perceptions of elementary and middle school teachers toward technology integration. Ph.D. dissertation, The University of Alabama at Birmingham, United States, Alabama. Retrieved March 14, 2008 from ProQuest Dissertations &Theses: Full text database. (Publication No. AAT 3253057).
6. Liaw, S. S., & Huang, H. M. (2003). An investigation of users attitudes toward search engines as an information retrieval tool. *Computers in Human Behavior*, 19(6), 751–765.
7. Mahdizadah, H., Harm, Biemans., & Martin Mulder. (2008). Determining factors of the use of e-learning environments by University teachers. *Computers & Education*. 51(1), 142-154.
8. Moon, J. W., Kim, Y. G. (2001). Extending the TAM for a World-Wide-Web context. *Information & Management*, 38(4), 217–230.
9. Norah jones., & John o'shea. (2004). Challenging hierarchies: The impact of e-learning. *Higher Education*, 48(3), 379–395.
10. Sarah Golden., Tami MaCrone., Matthew Walker & Peter Rudd. (2006). Impact of e-learning in Further Education: Survey of Scale and Breadth, National Foundation for Educational Research, *Research report RR745*, DFES Publications, Nottingham.
11. Shu-Sheng Liaw., Hsiu-Mei Huang., Gwo-Dong Chen. (2007). Surveying instructor and learner's attitude towards e-learning. *Computers & Education*, 49(4), 1066–1080.
12. Szajna, B. (1996). Empirical evaluation of the revised technology acceptance model. *Management & Science*, 42(1), 85–92.
13. Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models, *Information Systems Research*, 6(2), 144–176.
14. Vankatesh, V., & Davis, F. D. (1996). A model of the antecedents of perceived ease of use: Development and test. *Decision Sciences*, 27(3), 451–481.
15. Wang, L., Ertmer, P. A., & Newby, T. J. (2004). Increasing preservice teachers' self-efficacy beliefs for technology integration. *Journal of Research on Technology in Education, 36*(3), 231-250.