

A STUDY ON TEACHING COMPETENCY OF PROSPECTIVE TEACHERS IN RELATION TO THEIR COMPUTER LITERACY

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Abstract

In this study, the investigator made an attempt to find out the role of computer literacy in the teaching competency of prospective teachers in Kanyakumari district. The hypotheses of the study were, i) There is no significant difference in teaching competency and its dimensions of prospective teachers with respect to their computer literacy. ii) There is no significant difference among prospective teachers in teaching competency and its dimensions with respect to their browsing internet. The population for the present study consists of all the prospective teachers studying in Colleges of Education in Kanyakumari district. Using the simple random sampling technique the investigator selected 900 prospective teachers from various Colleges of Education in Kanyakumari district as the sample. To interpret the raw data, analyses were done using t-test and F-test. The findings revealed that, there is significant difference in teaching competency in total and its dimensions clarity, rapport and audiovisual aids of prospective teachers with respect to their computer literacy. Also, there is significant difference in the teaching competency and its dimensions content, organization, knowledge, clarity, communication and rapport of prospective teachers with respect to their browsing internet.

Keywords : Computer Literacy, Teaching Competency

Introduction

Education is a lifelong process of growth and development (Saxena, 2007). Affirming this view, Gandhi rightly points out that education is a process of drawing out the best in a child aiming at the comprehensive development of the body, the mind and the soul. It is said a teacher affects eternity and his limits are unbound. There can be none on the earth who has not ever been a student or learner under a teacher for sometime or more.

A person who wishes to become a teacher must obtain professional qualifications or credentials from a university or college. The education for the professional qualification of a teacher is commonly known as teacher education (Jangaiah, 2011). The candidates who are admitted to a teacher education programme and pursuing the course are known as prospective teachers. They are prepared as good teachers by providing them with a sound foundation of the theoretical knowledge, understanding, skills, attitude and interests through the teacher education course. To create and maintain quality education, the teachers must be competent enough, especially in teaching competency and it should be developed from teacher training period itself.

Teaching Competency

Teaching competency is the ability of a teacher manifested through a set of overt teacher classroom behaviours which is a resultant of the interaction between the presage and the product variables of teaching within a social setting. According to Haskew, 1956, Wilson, (1973) teaching competency includes knowledge, attitude, skill and other teacher characteristics. Teaching is a competence and it has to be mastered by practice gradually primarily by experience. It is used to ascertain the relationship between teacher attributes and their performance. Teachers are the crucial factors for education in classroom. They should implement curricular materials and grouping procedures adequately, and show effective instructional behaviours.

Considering the actual context, in which education is provided by teachers to a large extent, it is important for teachers to train or practice. For this reason, the investigator focuses attention on teaching competency of prospective teachers.

Objective

To find out whether there is any significant difference in the teaching competency and its dimensions of prospective teachers with respect to their computer literacy and browsing internet.

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Hypotheses

H_0 1. There is no significant difference in the teaching competency and its dimensions of prospective teachers with respect to their computer literacy.

H_0 2. There is no significant difference among prospective teachers in the teaching competency and its dimensions with respect to their browsing internet.

Methodology

The investigator used survey method for the present study.

Population

The accessible population for the present study consists of all the prospective teachers studying in Colleges of Education in Kanyakumari district.

Sample

Using simple random sampling technique the investigator selected a sample of 900 prospective teachers from various Colleges of Education in Kanyakumari district.

Tools Used

For the present study, the investigator used Teaching Competency Rating Scale standardized by Amaladoss Xavier in 2009.

Statistical techniques used

To interpret the raw data, analyses were done using mean, standard deviation, t-test and F-test.

Analysis of the study

The results of the analysis are presented in the following tables.

H_0 1. There is no significant difference in teaching competency and its dimensions of prospective teachers with respect to their computer literacy.

Table.1 : Difference in Teaching Competency and its Dimensions of Prospective Teachers with Respect to their Computer Literacy

Dimension	Computer Literacy	N	Mean	S.D	Calculated 't' Value	p Value	Remarks
Content	Yes	525	32.67	8.2	1.37	0.17	N.S
	No	375	31.92	7.83			
Organization	Yes	525	10.58	2.66	0	0.99	N.S
	No	375	10.58	2.52			
Knowledge	Yes	525	7.19	1.76	1.88	0.06	N.S
	No	375	6.97	1.71			
Clarity	Yes	525	25.43	5.97	2.32	0.02	S
	No	375	24.49	5.93			
Communication	Yes	525	10.69	2.84	0.21	0.83	N.S
	No	375	10.66	2.61			
Rapport	Yes	525	11.23	2.78	2.04	0.04	S
	No	375	10.86	2.58			
Audiovisual aids	Yes	525	21.96	5.48	2.83	0.01	S
	No	375	20.92	5.36			
Personality	Yes	525	18.35	4.2	1.52	0.13	N.S
	No	375	17.91	4.49			
Teaching Competency in Total	Yes	525	138.13	29.38	1.97	0.05	S
	No	375	134.33	28.05			

H_0 2. There is no significant difference among prospective teachers in teaching competency and its dimensions with respect to browsing internet.

Table 2 : Difference among Teaching Competency and its Dimensions of Prospective Teachers with Respect to Browsing Internet

Dimension	Source of Variation	Sum of Squares	Mean Square Variation	Calculated F Value	p Value	Remarks
Content	Between	1016.68	508.34	7.96	0	S
	Within	57305.83	63.89			
Organization	Between	62.33	31.16	4.63	0.01	S
	Within	6036.25	6.73			
Knowledge	Between	29.84	14.92	4.97	0.01	S
	Within	2690.76	3			
Clarity	Between	503.67	251.83	7.16	0	S
	Within	31543.64	35.17			
Communication	Between	69.6	34.8	4.65	0.01	S
	Within	6713.52	7.48			
Rapport	Between	74.88	37.44	5.17	0.01	S
	Within	6500.52	7.25			
Audiovisual aids	Between	175.62	87.81	2.97	0.06	N.S
	Within	26542.51	29.59			
Personality	Between	65.57	32.79	1.75	0.17	N.S
	Within	16810.76	18.74			
Teaching Competency in Total	Between	10011.67	5005.83	6.07	0	S
	Within	739735.28	824.68			

Table 2 (a) : Duncan Test Results of Difference in Teaching Competency and its Dimensions of Prospective Teachers with Respect to their Browsing Internet

Dimension	Browsing Internet & Mean Values			Mean Difference	p Value	Remark
	Daily	Weekly Twice	Weekly Once			
	M1	M2	M3			
Content	34.86	33.76		1.1	0.62	N.S
	34.86		31.79	3.07	0	S
		33.76	31.79	1.97	0.05	S
Organization	11.19	10.95		0.24	0.8	N.S
	11.19		10.44	0.75	0.04	S
		10.95	10.44	0.51	0.15	N.S
Knowledge	7.59	7.25		0.34	0.37	N.S
	7.59		7.01	0.58	0.01	S
		7.25	7.01	0.24	0.38	N.S
Clarity	27.07	25.66		1.41	0.24	N.S
	27.07		24.68	2.39	0	S
		25.66	24.68	0.98	0.24	N.S
Communication	11.36	11.02		0.34	0.68	N.S
	11.36		10.54	0.82	0.03	S
		11.02	10.54	0.48	0.2	N.S
Rapport	11.89	11.23		0.66	0.21	N.S
	11.89		10.95	0.94	0.01	S
		11.23	10.95	0.28	0.56	N.S
Teaching Competency in Total	145.55	139.35		6.2	0.31	N.S
	145.55		134.91	10.64	0.01	S
		139.35	134.91	4.44	0.28	N.S

It is inferred from the above table that prospective teachers those who browse internet daily are (145.55, 34.86, 11.19, 7.59, 27.07, 11.36 & 11.89) found to have better teaching competency, and its dimensions content, organization, knowledge, clarity, communication, and rapport than those who browse internet weekly once (134.91, 31.79, 10.44, 7.01, 24.68, 10.54 & 10.95 respectively). Also, the prospective teachers those who browse internet weekly twice (33.76) are found to have better content than those who browse internet weekly once (31.79).

Findings and Discussions

The findings revealed that there is significant difference in teaching competency in total and its dimensions clarity, rapport and audiovisual aids of prospective teachers with respect to their computer literacy. While comparing the mean scores, prospective teachers those who have computer literacy (138.13, 25.43, 11.23 & 21.96) are better than the prospective teachers those who do not have computer literacy (134.33, 24.49, 10.86 & 20.92) in their teaching competency and its dimensions clarity, rapport and audiovisual aids respectively. But there is no significant difference in the dimensions content, organization, knowledge, communication and personality of prospective teachers with respect to their computer literacy. This may be due to the reason that prospective teachers those who have computer literacy know the techniques of operating computers and may use technology in a better way in the classroom teaching. These bring variety in the classroom teaching and make the students attractive and attentive. Technologies may be used as the innovative teaching aids in the classroom, which help to improve the quality of teaching and learning. It breaks the monotonous nature of the classroom, and may help the teacher to perform his/her teaching in an effective way.

It is found out that there is significant difference in the teaching competency and its dimensions content, organization, knowledge, clarity, communication and rapport of prospective teachers with respect to their browsing internet. Further Duncan Test results revealed that prospective teachers those who browse internet daily are (145.55, 34.86, 11.19, 7.59, 27.07, 11.36 & 11.89) found to have better teaching competency, and its dimensions content, organization, knowledge, clarity, communication, and rapport than those who browse internet weekly once (134.91, 31.79, 10.44, 7.01,

24.68, 10.54 & 10.95 respectively). Also, the prospective teachers those who browse internet weekly twice (33.76) are found to have better content than those who browse internet weekly once (31.79). This may be due to the fact that, now-a-days teachers and teacher-educators emphasize more on using ICT in teaching and this compels them to go in for browsing and use the internet regularly to update their knowledge and to make their teaching effective by downloading the relevant materials to prepare instructional materials and power point presentation and all these techno-based activities would certainly contribute to make teaching effective either directly or indirectly and thus is this result.

Recommendations

Based on the above findings, the investigator has given the following recommendations for the development of teaching competency of prospective teachers.

1. Prospective teachers those who browse internet daily had better teaching competency. So computer education must be included in the curriculum in both theoretical and practical aspect.
2. Prospective teachers those who have computer literacy were better than the prospective teachers those who do not have computer literacy in their teaching competency. So computer laboratory with internet facilities must be provided to the prospective teachers. A minimum of one hour must be allotted for that in the daily time table.
3. Teacher educators must be able to integrate the use of technology and technology standards for students into the curriculum. Teachers must know where, when, as well as when not, and how to use technology for classroom activities and presentations.
4. Organize special training programmes seminars, symposium, discussion, conferences and workshop related to technology in education, technology of education and ICT embedded teaching strategies.

These recommendations may help to improve the teaching competency of prospective teachers. Thus, it is the right time that everyone, especially the prospective teachers and teacher educators, concentrates on understanding the importance of teaching competency for the betterment of their professional carrier to a great extent.

Conclusion

The purpose of this study was to conduct a research on the general competencies of prospective teachers perceptions according to the context of teaching profession about information and communication technologies (ICT). Prospective teachers' perceived competence level about ICT is of paramount importance for increasing the quality of education in future. Teachers should use ICT primarily by accepting the role of technology in education. They should have competencies about ICT. The research findings were believed to have been used to develop programs of education faculties. Also, teachers and prospective teachers can use them to evaluate themselves.

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