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Attitude and Awareness towards Information and Communication Technology of Student-Teachers

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Abstract--- *This article is based on the attitude and awareness towards information and communication technology in their teaching and learning environment. A survey was conducted at the different teacher training colleges in Tiruchirappalli district located in Tamilnadu, India and the student-teachers studying in teacher training colleges were the sample. This investigation may help the teacher educators and the curriculum constrictors to concern in the development of the ICT skills and attributes that are vital for the formation of teachers in modern society. Some alterations and enhancements of student-teachers current knowledge and skills in order to include important awareness and attitude of the ICT environment and sustainable development are suggested and discussed in this article.*

Keywords--- *Attitude, Awareness, Information and Communication Technology, Student-teachers.*

I. INTRODUCTION

Teaching is a principled profession. If one adopts it then one must be faithful to it. Despite the responsibilities of a teacher, it is one of the most rewarding jobs found in the world today (Guoyuan & Johan, 2010). Computer-based structures have a greater possibility of enhancing teaching and learning material (Annaraja & Joseph, 2006 & Ganesan, 2016). The advancement of Information and Communication Technology (ICT), predominantly the Internet, is one of the most charming portents describing the Information era (Master & Lawrence, 2015). ICT influences our interaction as informative enables new forms of communication and assists many online services in the domains of commerce, culture, entertainment, and education.

This research mainly focuses on attitude and awareness towards information and communication technology in the teaching-learning progress of the student-teachers in their teaching profession (Pratik, 2013). However, ICT can empower student-teachers to transmute their teaching practices, given a set of empowering situations. Teachers' academic practices and reasoning influences their use of ICT (Erdogan, 2010). For the better performance in their teaching, they need to have good awareness and attitudes towards information and communication technology which is very important in the present society (Tandfon, 2011).

II. ICT TRANSFORM THE EDUCATION

The contemporary techno world depends upon the emergence of telecommunication technology because the whole world is connected in one aspect that is internet and communication. This technology has shined all the fields in the civilized society as a non-stop accusation of human life (Madhu, 2013). When ICT is doing the role of universalizing all the fields in the world with the help of technology, even though we think that education transforms the human behavior but in the present scenario ICT transform the education. The teacher-centered education system

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changed into student-centered learning which deals with self-learning in the educational curriculum (Tondeur, Cooper, & Newhouse, 2010). Now a day curriculum of the worldwide universities is following the applications of the ICT in all short of teaching and learning depends on the stream of the specialization (Philomina & Amutha, 2016). Mostly science stream has more applicability in the use of technology of ICT in their learning and teaching but the growth of ICT shows its significant influence in non-science stream subjects also. The majority of the students without any learning subject vice streams, they are updating the knowledge of information and communication in their live stream (Vinnaras, Robinson & Shahzad, 2019). It is transforming education in the 21st-century world.

III. TECHNOLOGICAL TRANSFORMATION OF ICT

The earliest civilization has formulated several techniques for the interaction of their own thoughts, needs, and wishes to others. And they created towards to accept in a physically contained band in which statement was sufficiently accomplished through speech and written communications (Sivasankar, 2014). In a larger topographical area the civilized people were tried to use a variety of communication far places with some approaches such as smoke signals, carrier pigeons, etc., Fire signal was one of the ancient known optical contacts by Greeks I the eight century B.C. for distribution of agitations, appeals for getting supports or declaration of definite measures.

In 1938 F. B. Samuel discovered telegraphy to develop in the field of electrical telegraphy system which first programmed series of binary symbols manually transmitted and received (Thanuskodi, 2013). This progress changed later on electronic signals which lead to the birth of a telephone by Alexander Graham Bell. Then these all developed as radar and microwave links in the technological implementation (Beema & Madhu, 2012). At present these communication technologies have been loading the speech, writing, images and numerous additional kinds of information (Deivam, 2016). It became a fundamental portion of unremarkable lifespan through the journey on both sides of the entire world. It became to recognize, not as much expensive and commonly accessible, which one makes individuals to further entice in linking them to the internet (Amutha & John, 2015).

The Internet is a computer structure which consents masses of computer manipulators in everywhere the world for conversation of info with the usage of the internet (Victor, 2013).T). This makes communication easier and faster, and everybody has jumped up to assist in the use of this technology (Swamy, 2010). Information and Communication Technology is concerned with the usage of technology in large establishments. ICT treaties with the consumption of supercomputers and software to transfigure accumulate; keep the progression, transfer besides recovering evidences.

When the world wants to change the teaching and learning system in education with the application of digital equipment in all aspects that helped by Information and Communication Technology. At present, the growing of digitalized application is influenced in the field of education almost in all universities in advanced countries (Manoj, (2011). However, According to Busari (2006), the advancement of science and technology is life throughout the whole world. Every nation became as either a powerful creator of technology or a power user of other nation's technology in all the fields particularly education. In fact, ICT has made a new landmark in education which becomes globalized one (Mishra & Koehler, 2006). The practice of using ICT is becoming faster gaining

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prominence unique of the utmost significant features of essential usage as the undeveloped capabilities of the learners.

IV. Benefits And Changes Of ICT

One of the extensive outreach of ICT in teaching is that they can progress the excellence and the level of an educational accomplishment. For this to be implemented, they need to be used appropriately (Ganesan, & Krishnakumar, 2016). While ICT in teaching has its own benefits, it also has its challenges.

First and foremost, is the high cost of obtaining, fixing, functioning, sustaining and exchanging ICTs. While the incorporation of ICT into teaching is in its beginning stage, it still has to go a long way (Timothy, 2008). Familiarizing ICT schemes for teaching and learning in the emerging countries has a predominantly high expensive cost because fixing them is usually more luxurious in absolute terms than in developed countries although, indifference, substitute investments (e.g., constructions) are comparatively less costly (Brindhamani & Manichander, 2013).

The other encounter faced is that in many emerging nations the basic obligation of electricity and telephone networks is not available (Keisham, 2012). Also, many colleges do not have proper infrastructure so as to keep the technology (Kumar, 2007). These difficulties in many nations the people are not acquainted or relaxed with English. Teaching and learning skills advancement is another significant area in which ICT might be used efficiently (Mukana and Anderson, 2008). Efforts are being made to strengthen the ICT background for Technical and Vocational Education. ICT can perform a foremost part in assimilating skill expansion as a constituent of a deficiency improvement approach (Yusuf, 2011).

V. Significance Of The Study

ICT increases the great distribution of knowledge in the present society. To provide the maximum level of advanced educational aspect to the most marginalized and underprivileged is the duty of every teacher (Shaibou, 2015). This information and communication technology is focusing on a new era of life and knowledge which will really help those marginalized people to lead a successful life, and still has not reached India especially in the rural areas (Vasimalaraja, 2015) As a student-teacher, they must have some awareness of the influence of ICT which modifies the teaching-learning in the new version of the pedagogical study (Suganthi, 2013). The study is the attempt to know their level of the attitude and awareness towards ICT among the student-teachers who all are the future teachers (Placidius, 2014). The result of the study may help the curriculum makers on the advancement in the framework of the teacher education system, it is also very important to know how much awareness has been perceived by the student-teachers and how about their attitude.

VI. Objectives

- To find out the level of attitude of student-teachers towards information and communication technology with reference to background variables
- To find out the level of between awareness of student-teachers towards information and communication technology with reference to background variables

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VII. HYPOTHESIS

- There is no significant difference between the attitude of student-teachers towards information and communication technology with reference to background variables
- There is no significant difference between awareness of student-teachers towards information and communication technology with reference to background variables
- There is no significant correlation between attitude and awareness of student-teachers towards information and communication technology with reference to background variables.

VIII. METHODOLOGY

The investigators have employed a descriptive method using a survey as a technique to study the Attitude and Awareness of student-teachers towards information and communication technology. The tool was developed and validated by investigators were used to study the Attitude and Awareness of student-teachers towards information and communication technology. The investigators have randomly selected 550 (301male and 249 female) student-teachers from Tiruchirappalli district in Tamil Nadu, India.

Table: 1 Difference between Attitude and Awareness of student-teachers towards information and communication technology with reference to Gender

	Category	Count	Mean	SD	't' test	Result
Attitude	Male	301	86.62	8.57	3.01	S
	Female	249	88.80	8.32		
Awareness	Male	301	5.02	1.53	3.41	S
	Female	249	5.46	1.47		

(At 5% level of significance the table value of t is 1.96)

From the above table, the calculated 't' value is greater than the table value. So there is a significant difference between male and female in their attitude and awareness of student-teachers towards information and communication technology.

Table: 2 Difference among Attitude and Awareness of student-teachers towards information and communication technology with reference to Community

	Category	Mean	Sum of squares	df	f	Result
Attitude	OC	86.71	786.15	3	0.74	NS
	BC	87.39	39090.58	546		
	MBC	89.76	39876.73	549		
	SC/ST	86.61				
Awareness	OC	4.95	18.95	3	2.75	NS
	BC	5.40	1251.99	546		
	MBC	5.32	12970.94	549		
	SC/ST	5.07				

(At 5% level of significance the table value of 'f' is 3.09)

From the above table, the calculated 'f' value is lesser than the table value. So there is no significant difference among attitude and awareness of student-teachers towards information and communication technology with reference to Community.

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Table: 3 Difference among Attitude and Awareness of student-teachers towards information and communication technology with reference to Religion

	Category	Mean	Sum of squares	df	f	Result
Attitude	Hindu	88.12	886.63	2	6.22	S
	Muslim	80.16	38990.11	547		
	Christian	90.18	39876.73	549		
Awareness	Hindu	5.25	7.96	2	1.72	NS
	Muslim	5.53	1262.98	547		
	Christian	5.09	1270.94	549		

(At 5% level of significance the table value of 'f' is 3.09)

From the above table, the calculated 'f' value is less than the table value. So there is a significant difference among the attitude of student-teachers towards information and communication technology. But there is no significant difference among awareness of student-teachers towards information and communication technology with reference to religion.

Table: 4 Correlation between Attitude and Awareness of student-teachers towards information and communication technology with reference to background variables

Variable	Category	Number	Table value	'r' value	Result
Gender	Male	301	0.088	0.306	S
	Female	249	0.088	0.224	S
Community	OC	108	0.139	0.126	NS
	BC	196	0.139	0.346	S
	MBC	123	0.139	0.235	S
	SC/ST	123	0.139	0.383	S
Religion	Hindu	318	0.088	0.249	S
	Muslim	51	0.254	0.144	S
	Christian	181	0.139	0.367	S

From the above table, the calculated 'r' value is than for OC and Muslim student-teachers. Hence there is no significant correlation between attitude and awareness of the OC and Muslim student-teachers. But the table is greater than for BC, MBC SC/ST and Hindu, Christian student-teachers. So there is a significant correlation between Attitude and Awareness of student-teachers towards information and communication technology.

IX. DISCUSSION

From the table 1, when compared to male, female student-teachers have a positive attitude and high awareness of information and communication technology. Women in this district are well educated and their aspirations levels are also high. Attitude is the basis for awareness and awareness is the foundation for developing a positive attitude. It is a genetic tendency for the female to trust and have a positive attitude towards technology in life. Females in any community aspire to be educated and empowered and so they get themselves aware of information and communication technology specially provided to women. Since they are aware they have developed a positive attitude too.

From table 2, the community wise analysis gives no significant difference between attitude and awareness of OC, BC, MBC, and SC/STs. But MBC and SC/STs have a slightly high attitude and awareness towards information and communication technology than BC and OC. Because modern society has availed the communication

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technology with all the levels of people to open their ears and eyes wide to grasp opportunities provided in teaching and learning. Their social and economic background is such as to depend upon to come up in social status.

From table 3, there is no significant difference in their awareness of information and communication technology. But significantly differ in their attitude. Christians are more aware than the other two religious student-teachers. Christians have a lot of importance to education and they think that information and communication technology makes their education better that they can provide effective teaching and learn to their children in the classroom.

From table 4, there is a significant correlation between attitude and awareness towards information and communication technology with reference to gender, religion, community except for OC and Muslim. The other community people might be aware of facts regards information and communication technology but they really may not have a positive attitude towards information and communication technology.

This may be a fact that they think that ICT affects their own opportunities and development in teaching and learning. But Muslims though they have no awareness of information and communication technology but their attitude is positive. This is due to the effective opportunity of teaching and learning to them in their social setup in the advancement of ICT. So, they have developed a positive attitude inspite of their low awareness level.

X. CONCLUSION

Teaching is a noble profession in that everyone not to be as like others. The teaching-learning process in a normal classroom milieu should be highly emancipated in a conducive manner that proper learning should be taken out as an end product (Peralta & Costa, 2007). Teacher education has provided a lot of opportunities to learn ICT in their curriculum. Like other technological & scientific improvements, some adorable changes should be implemented in the teaching profession is also mandatory. Every student-teacher has to get positive attitudes and well aware of information and communication and technology. Because students of this era are not like as past they are so advance & faster than their teachers. So it is important that every teacher should improve their teaching in a more Techno- pedagogical way with the utilization of ICT.

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