REVIEW OF RESEARCH

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ICT AWARENESS, NEED AND USE AMONG TEACHERS OF D.ED. COLLEGES OF HYDERABAD KARNATAKA REGION

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ABSTRACT

Efforts are made in every country for a sound system of education which can cater the educational needs of all citizens. When the problem of quantity of education is being tackled, there is an urge for raising the quality of life, which is possible only if there is raise in the quality of education. The quality of life and the quality of education go together. Educationalists are of the opinion that the educational problems relating to the quality and quantity could be tackled by the development of an Educational Technology. Therefore, in recent years all over the world there has been a rapid development of Communication Technology in education at all levels with a purpose of extending educational facilities and upgrading instructional methodology. The present study tries to trace out the ICT awareness, use and need of the Vocational Skill Trainer of D.Ed. Colleges of Hyderabad Karnataka region. The result reveal that computer trained Vocational Skill Trainer were more aware and used more ICT resources for classroom teaching, professional development and personal development in comparison to the computer untrained Teachers and Vocational Skill Trainer having personal computer were using ICT resources more for their classroom practice, professional development and personal development than that of Teachers not possessing personal computer.

KEY-WORDS : quality of education , extending educational facilities.

1. INTRODUCTION:

We live in an age of information and technology. Widespread use of computers in all walks of life has been witnessed. There have been several major trends in emerging technologies particularly in last two decades which have increased access to instructional media with the advent of microchip technology; computers are now readily accessible on desk at reasonable cost. The electronic delivery system digitalized information storage in different forms using online severs of internet. The Internet is a global network of approximately 10-12 million hosts connected to each other. Information stored, thus, traverse international boundaries satisfying the

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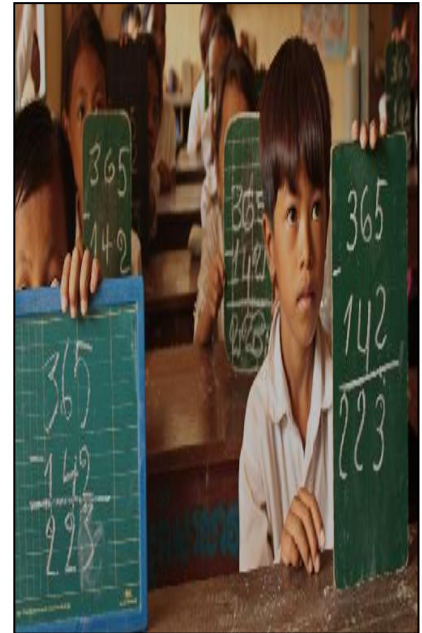
appetite of millions of users across the world. The internet acts as a medium for personal communication; information providers as well as consumers net for business, education and recreation, and store house of all types of documents and commercial resources. It is an unparalleled resource for education.

2. OBJECTIVES OF THE STUDY:
Following objectives were formulated to realize the present study which are given as follows:
1) To study the ICT awareness of Teachers of D.Ed. colleges of Hyderabad Karnataka region with respect to medium of instruction.
2) To study the ICT use of Teachers of D.Ed. colleges of Hyderabad Karnataka region with respect to computer training.
3) To study the ICT need of Teachers of D.Ed. colleges of Hyderabad Karnataka region with respect to possession of personal computer.

3. HYPOTHESIS:
1) There is no significant difference between the mean ICT awareness score of male and female Teachers of D.Ed. colleges.
2) There is no significant difference between the mean ICT awareness score of computer trained and computer untrained Teachers of D.Ed. colleges.
3) There is no significant difference between the mean ICT awareness score of teachers of D.Ed. colleges having personal computer and not having personal computer.

4. RATIONALE OF THE STUDY:
ICT is one of the recent developments of the twentieth century in India. It has changed each and every system around the globe from house related systems to industrial systems. Significantly, it has influenced the educational systems in all its forms. In the educational field different types of Information and Communication media are used to impart education. Radio, T.V., Tape recorder, OHP, LCD Projector, Computer and now with advancement in these technologies has changed the scenario. Internet and advanced computers are now being used in education as an instrument of instruction. This digitization has made it possible to design, develop, deliver, mange and assesses teaching – learning process. It increases the efficiency of the system and makes it more powerful.

The ability to use ICT effectively and appropriately is now seen as essential to allow learners to acquire and exploit information within every sphere of human activity. It can be assumed that specific forms of ICT will change with time. However, the need to be able to aware and use ICT purposefully will remain the key to full participation in an information society.

5. METHODOLOGY:
The present study is a survey type of work where the investigator has studied the ICT awareness, use and need of the Teachers of D.Ed. Colleges of Hyderabad Karnataka region Details of the research methodology followed in this present study included population, sample, tools, data collection and method of data analysis are given as follow.

a. Population:
The population for the present study comprise of all the teachers of D.Ed. colleges of Hyderabad

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Karnataka region.

b.   Sample:

For the present study the sample was selected randomly. The list of all the of D.Ed. colleges of Hyderabad Karnataka region was taken and using stratified random sampling method. 10 D.Ed. Colleges from six different districts of Hyderabad Karnataka region were selected. Again 10 Teachers from each college were selected randomly. These 100 Teachers comprise the sample for the present study.

c.   Tool for data collection:

To collect the required data according to the need of objectives, a scale on ICT awareness, use and need of Govt. Polytechnic Colleges Teachers was prepared by the investigator. After preparation of scale, it was given to five experts in the concern area. According to the expert's suggestions, necessary modification was done and final scale was prepared.

The scale was comprised of the different components of ICT i.e. Computer (Word processing, Spreadsheet, Power Point, Access , CAI and related Software etc.), Internet (e-mail, chat, searching etc.), T.V., OHP, LCD Projector, Radio, Social Media, I-pod, Whatsapp, Play store etc. Further details of scales is given as under:

To know the ICT awareness of B.Ed., college Teachers with respect to the different components of ICT, a five point scale was taken with the extent like Maximum, Average and Minimum. With the scale the maximum ICT awareness score of a Teachers could be 56.

To know the ICT use of Govt. Polytechnic Colleges Teachers with respect to different components of ICT in three different area like, Classroom Practice, Vocational Development and Personal Development a three point scale was taken with the extent like, Great Extent, Some Extent and Less Extent. The index of ICT use by the Govt. Polytechnic Colleges Teachers in the scale could be a maximum score of 160. Similarly, To know the ICT need of D.Ed. College Teachers with respect to different components of ICT a scale was taken with two components like, skill training, availability facilities. The index of ICT need by the Govt. Polytechnic Colleges Teachers using scale could be a maximum score of 36.

d.   Data collection:

For the present study the required data were collected from the Govt. Polytechnic Colleges Teachers. For this purpose the representative of investigator has personally contacted the college principals and explains the purpose of the study. After that scale was distributed among the Teachers and the completed scale was collected from the respondents.

6.   Data analysis:

As it is a survey type of study, the data analysis for the present study was done quantitatively with the help of both descriptive statistics and inferential statistics. The descriptive statistical techniques like, mean, standard deviation, standard error of mean, and the inferential statistics like, t-test for independent means were used during the process of the data analysis.

1.   Gender:

As per the gender of the D.Ed. college Teachers, mainly two groups of Teachers were found, one group with Male and another group with female Teachers group. 50 male Teachers and 50 female Teachers were taken

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sample. The relation of gender with their Awareness, use and need for ICT were computed. Attempt had been made to see the difference among different groups of D.Ed. college Teachers on the basis of their gender in mean ICT awareness, use and need. The t-test for independent means was used for this purpose which is given in table 1.

Table - 1
Means, Standard Deviations and t- value of Groups of male and female Teachers

Variable	Subject	No. of Teachers	Mean	SD	t-value	Significance
Awareness	Male	50	49.6	2.49	49.05	S
	female	50	31.7	4.64		
Use	Male	50	148.6	8.12	27.12	S
	female	50	121.6	11.59		
Need	Male	50	30.9	2.73	42.21	S
	female	50	20.3	2.40		

From table 1, it was observed that the means of male and female Teachers' awareness were 49.6 and 31.7 respectively. In terms of mean, it can be analyzed that the mean score of male Teachers was found more than that of female Teachers and the female Teachers were less aware about ICT than that of male Teachers. The t-value of 49.05 was found not significant at both 0.05 and 0.01 level. Hence, the working hypothesis that is 'there is no significant difference between the mean ICT awareness score of male and female Teachers' is rejected and alternative hypothesis accepted. So, it can be said that awareness of Teachers about ICT is related with their gender.

From table-1, it was observed that the means ICT use of male and female Teachers were 148.6 and 121.6 respectively. In terms of mean, it can be analyzed that the mean score of male Teachers was found more than that of female Teachers. The t-value of 27.12 was found not significant at both 0.01 and 0.05 level. Hence, the working hypothesis that is 'there is no significant difference between the mean ICT use score of male and female Teachers' is rejected and alternative hypothesis accepted. So, it can be said that ICT use of D.Ed. College Teachers, ICT is related with their gender.

From table 1, it was observed that the means ICT need of male and female Teachers were 30.9 and 20.3 respectively. In terms of mean, it can be analyzed that the mean score of female Teachers group was found less than that of male Teachers group. The t-value of 42.21 was found not significant at 0.05 level. Hence, the working hypothesis that is 'there is no significant difference between the mean ICT need score of male and female Teachers group' is rejected and alternative hypothesis accepted. So, it can be said that ICT need of D.Ed. college Teachers is related with their gender. From the analysis of table 1, it can be concluded that the variable `gender' is related significantly with the ICT awareness, use and need of Teachers. male and female Teachers stand unequally or nearly unequal in ICT awareness, use and need.

2. Computer training:

To find out the relation between ICT awareness, use and need of Teachers and their Computer training, mean, SD, were used and t-test was used to see the significance difference between the means score of ICT awareness, use and need of Teachers teaching with computer training and Teachers teaching without computer

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training. For this purpose, Teachers were classified into two groups that is computer trained Teachers and computer untrained Teachers on the basis of their responses in scale. Analysis of t-tests is given in table below:

Table - 2
Means, Standard Deviations and t- value of Groups of Computer trained Computer untrained Teachers

Variable	Computer training	No. of Teachers	Mean	SD	t-value	Significance
Awareness	Trained	50	50.0	2.45	53.21	S
	Untrained	50	31.6	4.18		
Use	Trained	50	150.4	7.72	37.11	S
	Untrained	50	122.4	8.15		
Need	Trained	50	30.7	2.18	53.45	S
	Untrained	50	19.9	2.78		

From table 2, it was observed that the means awareness about ICT of Means, Standard Deviations and t-value of Groups of Teachers teaching with computer training and Teachers teaching without computer training were 30.9 and 20.3 respectively. In terms of mean, it can be analyzed that the mean score of Teachers teaching with computer training were found more than that of the Teachers teaching without computer training, so it can be said that Teachers teaching with computer training were more aware about ICT resources that the Teachers without computer training. The t-value of 42.21 was found not significant at 0.05 level. Hence, the working hypothesis that is 'there is no significant difference between the mean ICT awareness score of computer trained and computer untrained Teachers' is rejected and alternative hypothesis accepted. So, it can be said that awareness of Teachers about ICT is related with the computer training.

From table 2, it was observed that the means use about ICT of Teachers teaching with computer training and the Teachers teaching without computer training were 150.4 and 122.4 respectively. In terms of mean, it can be analyzed that the mean score of Teachers teaching with computer training were found to be using ICT resources more than that of the Teachers teaching without computer training, so it can be said that Teachers teaching with computer training were using ICT resources more than that the Teachers teaching without computer training. The t-value of 37.11was found significant at both 0.05 and 0.01 level. Hence, the working hypothesis that is 'there is no significant difference between the mean ICT use score of computer trained Teachers and computer untrained Teachers' is rejected and alternative hypothesis accepted. Which indicates that the mean score of ICT use of Teachers teaching with computer training was significantly higher than that of the Teachers teaching without computer training? So, it can be said that use of Teachers about ICT is related with the computer training. So, it can be said that computer training of Teachers is related with their ICT use.

From table 2, it was observed that the means ICT need of Teachers teaching with computer training and the Teachers teaching without computer training were 30.7 and 19.9 respectively. In terms of mean, it can be analyzed that the mean score of Teachers teaching with computer training need for ICT was found to be more than that of the Teachers teaching without computer training, so it can be said that Teachers teaching with computer training ICT need was less than that the Teachers teaching without computer training. The t-value of 53.45 was found not significant at 0.01 and 0.05 level. Hence, the working hypothesis that is 'there is no significant difference between the mean ICT need score of Polytechnic college computer trained Teachers and

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computer untrained Teachers' is rejected and alternative hypothesis accepted. So, it can be said that need of Teachers for ICT is related with the computer training. So, it can be said that computer training of Teachers is related with their ICT need.

From the analysis of table 2, it can be concluded that the variable `Computer training' is related significantly with the ICT use of Teachers. Mean score of computer trained Teachers was higher than that of computer untrained Teachers, which indicate that computer trained Teachers use more ICT resources for classroom teaching, vocational development and personal development in comparison to the computer untrained Teachers, Whereas it was not found significant for the ICT awareness and need of Teachers. So it can be said that Computer training of Teachers is related as a variable only in case of ICT use of Teachers whereas it was related in case of ICT awareness and need of Teachers.

3. Possession of personal computer:

To find out the relation between ICT awareness, use and need of Teachers and their possession of personal Computer, mean, SD, were used and t-test was used to see the significance difference between the means score of ICT awareness, use and need for Teachers having personal computer and the Teachers not possessing personal computer. For this purpose, Teachers were classified into two groups that is Teachers having personal computer and the Teachers not having personal on the basis of their responses in scale. Analysis of t-tests is given in table below:

<p style="text-align:center">Table - 3</p>
<p style="text-align:center">Means, Standard Deviations and t- value of Groups of Teachers having personal computer and not having personal computer</p>

Variable	Possession of PC	No. of teachers	Mean	SD	t-value	Significance
Awareness	Don't have PC	50	50.9	2.18	39.93	S
	Have PC	50	33.3	5.25		
Use	Don't have PC	50	150.4	8.00	26.81	S
	Have PC	50	126.3	10.03		
Need	Don't have PC	50	30.1	2.82	54.75	S
	Have PC	50	20.0	2.92		

From table 3, it was observed that the means awareness about ICT of Teachers having personal computer and Teachers not possessing personal computer were 21.00 and 18.37 respectively. In terms of mean, it can be analyzed that the mean score of Teachers having personal computer was found more than that of the Teachers not possessing personal computer, so it can be said that Teachers having personal computer were more aware about ICT resources that the Teachers not possessing personal computer. The t-value of 1.3140 was found not significant at 0.05 level. Hence, the working hypothesis that is 'there is no significant difference between the mean ICT awareness score of Teachers having personal computer and Teachers not having personal computer' is retained. So, it can be said that awareness of Teachers about ICT is not related with the possession of personal computer. From table 3, it was observed that the means ICT use of Teachers having personal computer and the Teachers not possessing personal computer were 31.21 and 24.29 respectively. In

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terms of mean, it can be analyzed that the mean score of Teachers having personal computer was found to be using ICT resources than that of the Teachers not possessing personal computer, so it can be said that Teachers having personal computer were using ICT resources more for their classroom practice, professional development and personal development than that of Teachers not possessing personal computer. But the t-value of 1.2787 was found not significant at 0.01 level. Hence, the working hypothesis that is 'there is no significant difference between the mean ICT use score of Teachers having personal computer and Teachers not having personal computer' is retained. So, it can be said that ICT use of Teachers is not related with the possession of personal computer.

From table 3, it was observed that the means ICT need of Teachers having personal computer and the Teachers not possessing personal computer were 8.95 and 10.88 respectively. In terms of mean, it can be analyzed that the mean score of Teachers having personal computer need for ICT was found to be less than that of the Teachers not possessing personal computer, so it can be said that Teachers having personal computer need for ICT was less than that of the Teachers not possessing personal computer. But the t-value of 0.8153 was found not significant at 0.05 level. Hence, the working hypothesis that is 'there is no significant difference between the mean ICT need score of Teachers having personal computer and Teachers not having personal computer' is retained. So, it can be said that ICT need of Teachers is not related with the possession of personal computer. From the analysis of table 3, it can be concluded that the variable `Possession of Personal Computer' is not related significantly with the ICT awareness, use and need of Teachers. Teachers with having personal computer and the Teachers with not having personal computer stand equal or nearer to equal in their ICT awareness, use and need.

7. CONCLUSIONS:

It is observed from the above findings of the research that the computer trained Teachers aware and use more ICT resources for classroom teaching, vocational development and personal development in comparison to the computer untrained Teachers and Teachers having personal computer were using ICT resources more for their classroom practice, vocational development and personal development than that of Teachers not possessing personal computer. It is undeniably true that the use of ICT requires training in the proper handling of ICT facilities and their optimal use. The Teachers can seek such training themselves or even seek the assistance of the Department to arrange for such a training programme. Thus the findings of the study also hint at the role of Teachers in the effective use of ICT.

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