

A Study on ICT Knowledge of Higher Secondary School Teachers

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Abstract: *The present study attempts to find out the ICT Knowledge of higher secondary school teachers of Thanjavur district. Knowledge of ICT and use of ICT skills in teaching and learning have become imperative for today's teachers. ICT integration in institutions is being perceived as a necessity and is growing exponentially. The pervasive use of technology in all spheres of life, the knowledge economy and the paradigm shift together, generate demands on the institutions to adopt ways that help inculcate 21st century skills amongst students. In order to integrate ICT in school education, the first need is to study and assess the teachers ICT knowledge. So, the present study has high need and importance. The present study has been done so as to study the ICT Knowledge of the higher secondary school teachers. Random sampling technique has been used in the selection of the sample of as many as 529 higher secondary school teachers. The ICT Knowledge Test (ICTKT) constructed and validated by Rajasekar, S., (2014) has been distributed to them and the responses were collected and computed according to the objectives framed. The findings of the study revealed that the higher secondary school teachers shows an average level of ICT knowledge and the same trend has been seen in respect of the sub-samples, too.*

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ICT Knowledge: Growth of ICT brought in rapid changes in various fields. It had also made entry into school education because of its appropriateness, applicability and versatility in use for classroom teaching. It is well recognized that ICT has great potential for improving the teaching learning process. It facilitates individualized learning and develops problem solving skills. Its interactive nature motivates students to learn. Educationists and teachers believe that with the help of ICT, quality of education given to the students can be significantly improved. ICT integration in institutions is being perceived as a necessity and is growing exponentially. The pervasive use of technology in all spheres of life, the knowledge economy and the paradigm shift together, generate demands on the institutions to adopt ways that help inculcate 21st century skills amongst students. In order to integrate ICT in school education, the first need is to study and assess the ICT Knowledge of the higher secondary school teachers. It is the need of the hour to examine and assess the ICT Knowledge of teachers. So, the present study has high need and importance.

Objectives of the Study: The following were the objectives formulated for the present investigation.

1. To study the level of ICT knowledge of the higher secondary school teachers.
2. To study if there is any significant difference in ICT knowledge between the male and female higher secondary school teachers.

3. To study if there is any significant difference in ICT knowledge between the higher secondary school teachers working in the schools located in the rural area and in the urban area.
4. To study if there is any significant difference in ICT knowledge between the higher secondary school teachers residing in the rural area and in the urban area.
5. To study if there is any significant difference in ICT knowledge between the higher secondary school teachers having teaching experience upto 10 years and above 10 years.

Hypotheses of the Study: The following were the hypotheses for the present investigation framed from the formulated objectives.

1. The higher secondary students show a high level of ICT Knowledge.
2. There is no significant difference in ICT knowledge between the male and female higher secondary school teachers.
3. There is no significant difference in ICT knowledge between the higher secondary school teachers working in the school located in the rural area and in the urban area.
4. There is no significant difference in ICT knowledge between the higher secondary school teachers residing in the rural area and in the urban area.
5. There is no significant difference in ICT knowledge between the higher secondary school teachers having teaching experience up to 10 years and above 10 years.

Method: Normative survey method has been employed in the present study.

Tool Used: The tool used for the present study was, ICT Knowledge test constructed and validated by Rajasekar, S., (2014) was used in the present investigation. This test consists of 33 multiple choice questions with five alternatives to each question. The statements possess the scoring as 1 and 0 for the responses 'CORRECT' and 'WRONG' for all the statements.

An individual score is the sum of all the score of the 33 items. The score ranges from 0 to 33. The maximum score that one can get in this is 33. The level of the ICT Knowledge test has been given as follows:

Scores	Results
27 and above	Very high level of Knowledge
22 – 26	High level of Knowledge
12 – 21	Average level of Knowledge
8 – 11	Low level of Knowledge
7 and below	Very Low level of Knowledge

The ICT Knowledge Test has construct validity as the items selected were having the 't' value of more than 1.75 (Edwards,1957). Its intrinsic validity was found to be 0.87. The reliability of this test by test-re-test method (consistency) followed by the use of spearman –brown prophecy formula is found to be 0.99. Thus the ICT Knowledge test has validity and reliability.

Sample: Random sampling technique has been used in the selection of the sample of as many as 529 higher secondary students.

Statistical Techniques Used: The mean and standard deviation for the entire sample and its sub-samples were computed for ICT Knowledge test scores. The test of significance (“t” test) was used in order to find out the significance of the difference between the means of the ICT Knowledge test score. The collected data were computed with the SPSS 11.5 and the results were furnished accordingly in the Table 1.

Table 1: The Mean And The Standard Deviation of the ICT Knowledge Test Scores of the Entire Sample And Its Sub-Samples

Sl. No	Samples	Sub-Samples	N	Mean	Standard Deviation	‘t’ Value	Significance at 0.05 Level
1	Entire sample		529	12.5992	6.31		-
2	Sex	Male	272	12.2059	6.12	1.47	Not Significant
		Female	257	13.0156	6.49		
3	School locality	Rural area	240	11.7000	6.10	3.02	Significant
		Urban area	289	13.3460	6.40		
4	Residence	Rural	244	12.0451	6.23	1.87	Not Significant
		Urban	285	13.0737	6.36		
5	Teaching Experience	Upto 10	230	12.7304	6.12	0.42	Not Significant
		Above 10	299	12.4983	6.47		

Findings of the Study: The following are the important findings of the present investigation.

1. Majority of the higher secondary school teachers’ shows an average level of ICT Knowledge.
2. There is no significant difference in ICT knowledge between the male and female higher secondary school teachers.
3. There is a significant difference in ICT knowledge between the higher secondary school teachers working in the school located in the rural area and in the urban area.
4. There is no significant difference in ICT knowledge between the higher secondary school teachers residing in the rural area and in the urban area.
5. There is no significant difference in ICT knowledge between the higher secondary school teachers having teaching experience up to 10 years and above 10 years.

Conclusion: The present investigation revealed that majority of the higher secondary school teachers, were found to have an average level of ICT Knowledge. Information and Communication Technology is relevant in all walks of life. Having right attitude and Knowledge on ICT and its usage can yield benefit for teachers. The successful implementation of educational technologies depends largely on the Knowledge of teachers,

who eventually determine how they are used in the classroom. Teacher's knowledge on ICT is a major enabling/disabling factor in the adoption of technology. Any successful transformation in educational practice requires the development of positive user Knowledge on new technology. So it can be revealed from the investigation that the higher secondary school teachers should enhance the ICT Knowledge in a constructive way.

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