HIGHER SECONDARY STUDENTS' PERCEPTION OF INFORMATION AND COMMUNICATION TECHNOLOGY

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ABSTRACT

In the present study the investigators have attempted to gauge the higher secondary students' perception of Information and Communication Technology at school level. The sample for the study consisted of 200 plus one students from various higher secondary schools in Madurai educational district. The investigators developed and validated a tool to measure the higher secondary students' perception of Information and Communication Technology. The data collected from the respondents were analysed by using mean, standard deviation and t-test. The findings reveal that the higher secondary students' perception of Information and Communication Technology differs in terms of sex, locale, type of management and subject group.

INTRODUCTION

Information and Communication Technology (ICT) is the technology used to manage information and aid communication. In practice, the terms are interchangeable and refer to devices such as video recorders, telephones, calculators, electronic cash tills as well as computers. In the context of the Higher Secondary School classroom, Information and Communication Technology usually comprises PCs, Laptop Computers, Computer Network, Printers, Scanners, Video and DVD Players, Digital Cameras (Still and Video), Voice Recorders (Tape and CD), Interactive Whiteboards etc.,

In a broader sense, Information and Communication Technology is taken to refer to the whole set of enabling technology concerned with communication, manipulation of information, networking, data storage, transmission – encompassing data, voice and video.

The problem is that the growth of newer Information and Communication Technology as an instructional tool influence the students learning and their acquisition of knowledge may be raised at certain extent as possible. Hence the integration of all types of technology into the classroom is viewed as an effective instructional strategy for improving the standard of education at higher secondary schools. Higher secondary students' perception of Information and Communication Technology can influence them towards their effective use of information and communication technology. To fill the gap between the students' perception of Information and Communication Technology and the teaching learning situation in the classroom this study was undertaken.

SIGNIFICANCE OF THE STUDY

Communication is Education and Education is knowledge. This is an age of knowledge explosion and exploration through Information and Communication Technology. Rapid progress in Information and Communication Technology has invaded the arena of education. Technology has had a significant effect on the educational system for many years. In the class room teachers have moved from the days of chalk and talk to the use of overhead projectors and more recently to the use of software and multimedia presentation techniques.

Information and Communication Technology is widely recognized as a tool and modern education should aim at creating a relevant insight into its nature for the development of useful skills. The advent of Information Technology has had a profound and commanding global influence on the matrix of socio-economic activity the world over.

Information and Communication Technology is the latest developmental programme for improving the teaching-learning process in schools. It is an urgent need to study the Higher Secondary Students' perception and utilization of Information and Communication Technology in their schools.

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If India could attain world recognition in computer software and information technology today, it is because of our past investment in education. If it is to maintain this lead and become globally competitive in other emerging areas of technology also, it must continue to strengthen our educational system to suit the changing needs. Information and Communication Technology modifies students' environment and their perception through the varied techniques of presentation and arrangement of learning activities. Quantitative expansion and qualitative improvement of education could be facilitated and accelerated with the help of Information and Communication Technology.

OBJECTIVES OF THE STUDY

1. To find out the difference if any, between male and female students in respect of their perception of Information and Communication Technology.
2. To find out the difference if any, between rural and urban school students in respect of their perception of Information and Communication Technology.
3. To find out the difference if any, between Govt. and self financing school students in respect of their perception of Information and Communication Technology.
4. To find out the difference if any, between Arts and Science group students in respect of their perception of Information and Communication Technology.

METHODOLOGY

The investigator followed the survey method in the present study. The investigator developed and used a standardised questionnaire. The items given in the questionnaire were verified and pooled with the help of the guide and the subject experts. The tool was administered to the sample selected from Madurai Educational District. The data were collected from the students and were analysed by adopting appropriate statistical techniques for measuring the Higher Secondary Students' perception of Information and Communication Technology.

SAMPLE

A sample of 200 students from higher secondary schools in Madurai Educational District was chosen as sample for the study by using the simple random sampling technique.

DATA ANALYSIS

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Hypothesis1

There is no significant difference in the perception of Information and Communication Technology between male and female students.

Table 1

SIGNIFICANCE OF DIFFERENCE IN PERCEPTION MEAN SCORES OF MALE AND FEMALE STUDENTS

S.No	Sex	N	Mean	Standard Deviation	t-value
1	Male	110	67.89	3.34	NS
2	Female	90	65.73	4.42	1.31

Critical Value for 0.05 level = 1.96

NS – Not significant

The calculated t-value 1.31 is less than the critical value of 1.96 corresponding to the 0.05 level of significance. This implies that the difference in the perception mean scores under consideration is not significant. Hence, the null hypothesis is accepted.

Therefore, it is concluded that Male and Female students do not differ significantly in respect of their perception of Information and Communication Technology in education.

Hypothesis 2

There is no significant difference in the perception of Information and Communication Technology between rural and urban school students.

Table 2

SIGNIFICANCE OF DIFFERENCE BETWEEN URBAN AND RURAL SCHOOL STUDENTS IN TERMS OF THEIR PERCEPTION MEAN SCORES

S.No	Variable	N	Mean	Standard Deviation	t-value
1	Rural	94	53.24	6.64	2.02*
2	Urban	106	58.92	6.35	

Critical value for 0.05 level = 1.96

* Significant at 0.05 level.

The calculated t-value 2.02 is higher than the critical value of 1.96 corresponding to 0.5 level of significance. This implies that the difference in perception mean scores of rural urban school students under consideration is significant. Hence, the null hypothesis is rejected.

Therefore, it is concluded that the higher secondary students from rural and urban schools differ significantly in respect of their perception of Information and Communication Technology. Further, the higher mean scores of the urban school students indicate better perception of Information and Communication Technology than in the case of rural school students.

Hypothesis 3

There is no significant difference between the students of Govt. and self financing schools in respect of their perception of Information and Communication Technology.

Table 3

SIGNIFICANCE OF DIFFERENCE IN PERCEPTION MEAN SCORES OF GOVERNMENT AND SELF FINANCING SCHOOL STUDENTS

S.No	Variable	N	Mean	Standard Deviation	t-value
1	Govt	60	47.45	5.32	6.64**
2	Self financing	70	54.75	6.71	

Critical value for 0.01 = 2.58
** Significant at 0.01 level

The calculated t value 6.64 is greater than the critical value 2.58 corresponding to 0.01 level of significance. This implies that the difference in the perception mean scores under consideration is significant. Hence, the null hypothesis is rejected.

Therefore, it is concluded that Government and self financing school students differ significantly in respect of their perception of Information and Communication Technology. Further, the higher mean score of the students of self financing schools indicates better perception of Information and Communication Technology than in the case of Government school students.

Hypothesis 4

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There is no significant difference in the perception mean scores towards Information and Communication Technology between the Arts and Science group students.

Table 4

SIGNIFICANCE OF DIFFERENCE IN PERCEPTION MEAN SCORES OF THE STUDENTS OF ARTS AND SCIENCES

S.No.	Variable	N	Mean	Standard Deviation	t-value
1	Arts	85	59.89	8.75	8.01**
2	Science	88	64.61	9.47	

Critical value for 0.05 = 2.58
** Significant at 0.01 level

The calculated t-value 8.01 is greater than the critical value 2.58 corresponding to 0.05 level of significance. This implies that the difference in the perception mean scores under consideration is significant. Hence, the null hypothesis is rejected.

Therefore, it is concluded that the students of Arts and Sciences differ significantly in respect of their perception of Information and Communication Technology. Further the higher mean scores of the students of sciences indicates better perception of Information and Communication Technology than in the case of Arts students.

SUMMARY OF THE FINDINGS

1. Higher secondary students of Madurai Educational District have better perception of Information and Communication Technology.
2. Both male and female students are similar in their perception of Information Communication Technology.
3. Higher secondary school students from different types of schools differ significantly in respect of their perception of Information and Communication Technology in education. Students of Government schools have a lesser perception than the students of self financing schools.
4. Students studying in rural and urban schools are significantly different in their perception of Information and Communication Technology.

5. Science group students have better perception of information and Communication Technology than Arts group students.

IMPLICATIONS OF THE STUDY

The importance of computers and Information and Communication Technology continues to increase in schools and throughout society. Online instruction helps students to learn and to develop computer skills and Information and Communication Technology literacy. Many experts feel that the knowledge, skills and confidence in using computers and Information and Communication Technology are some of the most essential lessons that education can provide. Because these skills are so important, equal access to Information and Communication Technology has become a topic of public debate. Experts feel that society must find ways to make computers and newer technologies available at schools. The present investigation finds that the higher secondary school students have better perception of computers and Information and Communication Technology. Hence educationists should plan to train students in Information and Communication Technology.

It is now a popular option among students. It has both shrunk spaces and enabled higher secondary students to acquire knowledge and skills from their schools.

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Relationship Between...

knowledge of philosophy and sociology, psychology, curriculum, methodology, techniques, technology, evaluation and pedagogical knowledge in toto. But there is significant difference among boys', girls' and co-education college B.Ed. students in their knowledge of guidance and counselling. While comparing the mean scores of boys' (1.93), girls' (2.03), and co-education college students (2.45), the co-education B.Ed. sudents are better in their knowledge of guidance and counselling.

7. There is significant relationship between reflectiveness and pedagogical knowledge of B.Ed. students.

INTERPRETATION

The 'F' test result reveals that co-education B.Ed. students are better than the boys' and girls' college B.Ed. students in their knowledge of guidance and counselling. This may be due to the fact that there is a healthy competition among co-education students. Every student may get exposure about their counterparts. Sharing is possible in co-education institutions. So they are well versed in giving guidance and counselling.

There is positive significant relationship found between reflectiveness and pedagogical knowledge of B.Ed. students. This may be due to the fact that when the reflective capacity increases, the B.Ed. students understand the pedagogy much better. The reflectiveness helps B.Ed. students to be effective in teaching learning process and understand the pedagogical principles which is the core aim of B.Ed. study.

RECOMMENDATIONS

1) ALM can be incorporated with CAI package.
2) ABL can be taught using ICT components.
3) Training programmes on pedagogy can be given to the students. ICT can be incorporated in the B.Ed. curriculum.
4) Problem based teaching method can be insisted on.
5) Workshops and seminars on teachers related to pedagogy may be conducted.
6) Teachers should encourage the students to develop their reflectiveness.

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