



# A STUDY OF COMPUTER SELF-EFFICACY OF HIGHER SECONDARY STUDENTSS

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## ABSTRACT

The advent of technology in the world has changed manifold. Today's schools continue to be challenged by the increased visibility, role and cost of educational technology. Considering current trends in education, a modern classroom would not be complete without computers, software, internet connection, projects and variety of other hi-tech devices. Technology is the key to its development. Technologies are essential tools for teaching and learning. To use these tools effectively and efficiently, teachers need to have a vision of its challenging professions in our society where knowledge is expanding rapidly and much of it is available to students as well as teachers at the same time. Modern development of innovative technologies have provided new possibilities to teaching profession, but at the same time have placed more demands on teachers to learn how to use these technologies in their teaching.

**Keywords:** Educational Technology, computers, software, internet connection.

## INTRODUCTION

Globalization has made the world more dynamic and extremely competitive where an array of educational strategies, expertise and knowledge are constantly generated and changed. Innovative digital technologies have been found as powerful supporting tools for change and transformation. Use of information technology and internet support educational development, encouraging collaborative learning in geographically apart clusters. This has been referred to as Online learning. Developing countries which are facing an increasing shortage of faculty have started realizing the benefits of Online learning (UNESCO, 2006).

## SIGNIFICANCE OF THE STUDY

Accepting the new things help the human being to develop their attitude on that field and helps them to succeed in the future needs. Day by day our technology improved a lot. Lot of drastic change occurs every day. We have to accept the change and live according to the situation. In order to bring effective improvement

in the quality of education, it is necessary to focus attention on the new technologies. One such recent and most dominating technology is Computer Technology. Computer plays great revolution in every walk of life. But when we think about its development in the field of education, it is only in an infant stage. Now many people start thinking to add computer education curriculum at all possible ways. Hence it is important to study the attitude of B.Ed., student's Online learning awareness.

This kind of situation is also prevalent in the Indian classroom where students have anxiety or technophobia to use technology, which results in a sense of low computer self-efficacy, and negative attitudes to use computers in their classroom. So there is need to investigate **A STUDY OF COMPUTER SELF-EFFICACY OF HIGHER SECONDARY STUDENTSS.**

## REVIEW OF RELATED LITERATURE

**Holcomb, Bron. Kulikowich and Zheng (2013)** found that computer Self- Efficacy is positively correlated with a willingness to choose and participate in computer activities, an expectation of success, the ability to persevere when faced with computer-related difficulties, and one's computer - related performance. Studies have investigated the nature of self-efficacy and beliefs in technology for teaching. Later examining self- efficacy beliefs toward technology use have focused on their influence on attitudes toward computers.

**Nanjappa and Lowther (2014)** investigated the influence of perceived computer self-efficacy on technology integration beliefs of school teachers in India. The technology survey instrument was used to collect data from 267 school teachers of Mumbai, India. Data analyses revealed that the participants had strong beliefs about the impact of technology integration on instruction and students; but belief about their own readiness was comparatively weak, even though their computer self-efficacy scores were above average. Multiple regressions reflected a positive significant relationship between teacher technology beliefs and computer self-efficacy. The study had important implications for a population of novice computer users and the success of the technology integration program, as envisaged by educational planner in India.

## OBJECTIVES OF THE STUDY

1. To find the significant difference between the computer self-efficacy of higher secondary students with respect to Gender.
2. To find the significant difference between the computer self-efficacy of higher secondary students with respect to Type of management
3. To find the significant difference between the computer self-efficacy of higher secondary students with respect to Medium of instruction
4. To find the significant difference between the computer self-efficacy of higher secondary students with respect to Locality
5. To find the significant difference between the computer self-efficacy of higher secondary students with respect to Availability of computer at home.

## HYPOTHESIS OF THE STUDY

1. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Gender.
1. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Type of Management.
2. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Medium of instruction
3. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Locality
4. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Availability of computer at home

## SAMPLE OF THE STUDY

Stratified Random sampling technique was used in the selection of and 300 higher secondary students in Tirupathur district were selected as the sample for the study.

## TOOLS USED IN THE PRESENT STUDY

- Computer Self-Efficacy Scale By Roslani Embi (2007)

## DESCRIPTION OF THE TOOL

The investigators applied in Computer Efficacy scale by **Roslani Embi (2007)**. This inventory consist 29 items present study by the research scholar has been used. The Computer Efficacy scale is a five-point scale with the options namely Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. Scores are given in the order of 1, 2, 3, 4, and 5. Therefore one can get a maximum score of 145 and the minimum score is 29. The research scholar prepared the question-wise analysis, scoring key and marking scheme.

## Reliability

The split half technique was employed to obtain the reliability of the tool. The reliability co efficient was found to be 0.81 by using split half technique. The spearman Brown prophecy formula was used for this

## Validity

The investigator taken for this study of validity content validity

## METHOD OF THE STUDY

Normative survey method has been employed in the present study.

## STATISTICAL TECHNIQUES EMPLOYED

In the present study the following statistical techniques were used.

1. Descriptive Analysis
2. Differential Analysis

## DELIMITATIONS OF THE STUDY

- The study is confined to the higher secondary students situated in the district of Tirupathur only.
- The study is confined to Students in Government, Aided, and Private higher secondary schools only.
- The study is delimited to 300 higher secondary school students only.

The present study is limited only few of viz. Gender, Type of Management, Medium of Instruction, Locality and availability of computer at home .

## DIFFERENTIAL ANALYSIS

### HYPOTHESIS NO: 1

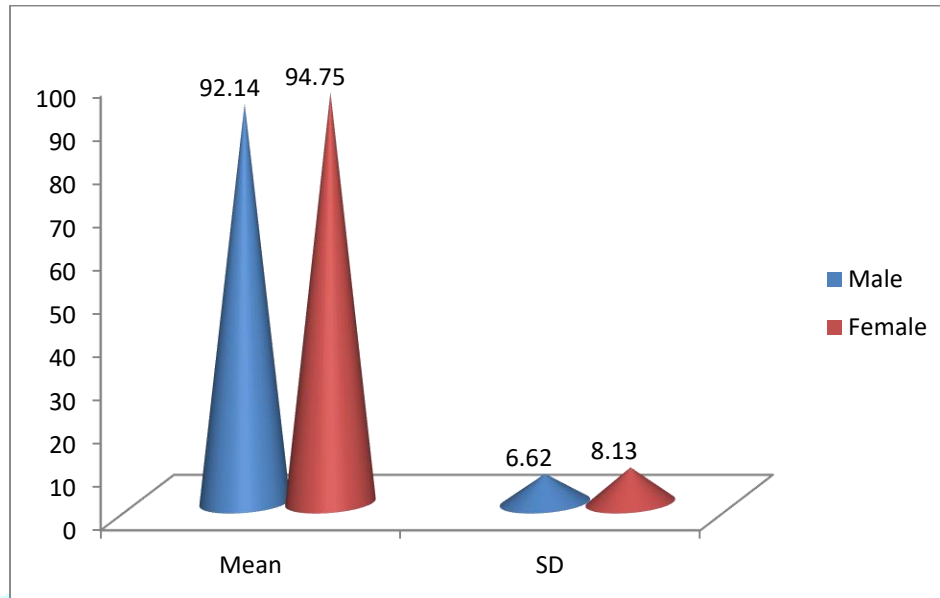
There is no significant difference between the computer self-efficacy of higher secondary students with respect to Gender.

**TABLE-01**  
**MEAN DIFFERENCE BETWEEN THE COMPUTER SELF-EFFICACY OF HIGHER SECONDARY STUDENTS WITH RESPECT TO GENDER.**

Gender	N	Mean	SD	t-value	Table value	Remark at 5% level
Male	120	92.14	6.62	2.24	1.96	Significant
Female	180	94.75	8.13			

It is inferred from the above table that the calculated 't' value is 2.24, which is greater than the table value 1.96 at 5% level of significance. Hence hypothesis is rejected. There is significant difference between the computer self-efficacy of higher secondary students with respect to Gender.

**FIGURE 01**  
**DISTRIBUTION OF SAMPLE ON COMPUTER SELF-EFFICACY TO GENDER**



### HYPOTHESIS NO: 2

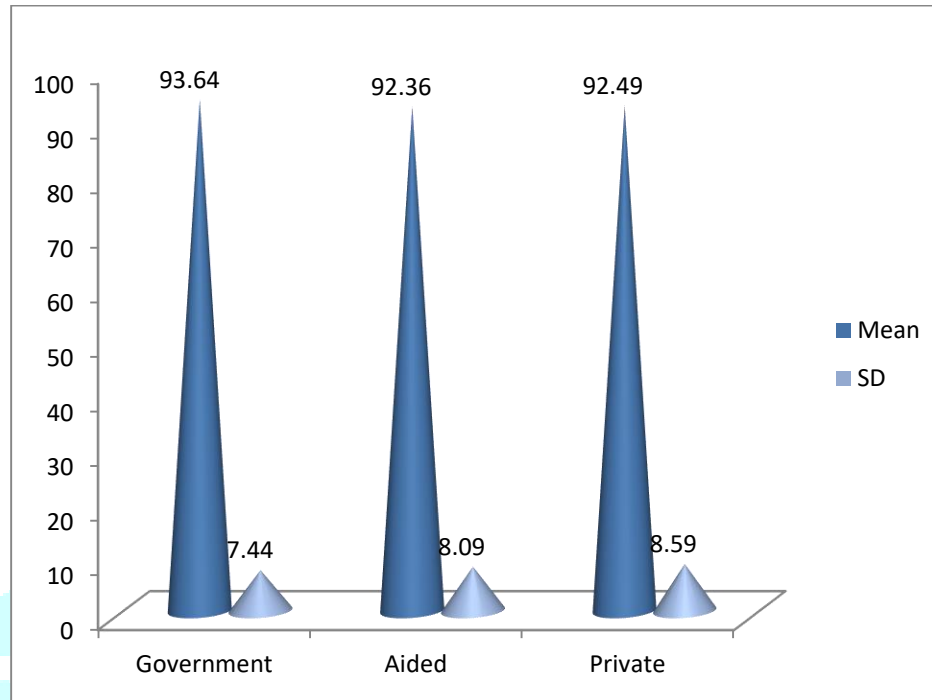
There is no significant difference between the computer self-efficacy of higher secondary students with respect to Type of Management.

**TABLE-02**  
**MEAN DIFFERENCE BETWEEN THE COMPUTER SELF-EFFICACY OF HIGHER SECONDARY STUDENTS WITH RESPECT TO TYPE OF MANAGEMENT**

Variable	Source of Variation	Df	Sum of Squares	Mean Square	F-ratio	Level of significance at 5% level
Type of Management	Between groups	2	0.270101	0.135051	0.05	Not significant
	Within groups	297	3326.803	22.63131		
	Total	299	3327.073			

It is inferred from the above table that the calculated 'F' value is 0.05, which is less than the table value 1.96 at 5% level of significance. Hence hypothesis is not accepted. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Type of management.

**FIGURE 02**  
**DISTRIBUTION OF SAMPLE ON COMPUTER SELF-EFFICACY TO TYPE OF MANAGEMENT**



### HYPOTHESIS NO: 3

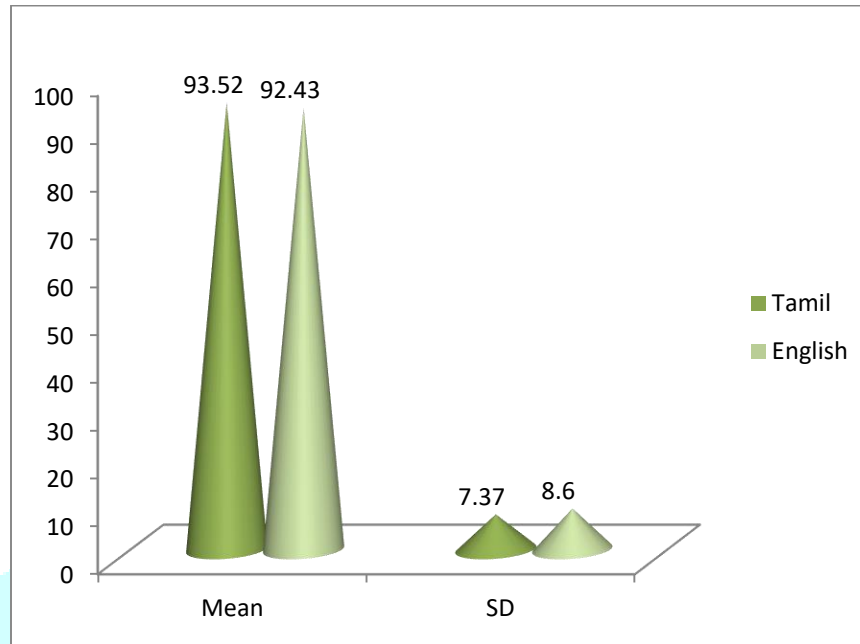
There is no significant difference between the computer self-efficacy of higher secondary students with respect to Medium of instruction.

**TABLE-03**  
**MEAN DIFFERENCE BETWEEN THE COMPUTER SELF-EFFICACY OF HIGHER SECONDARY STUDENTS WITH RESPECT TO MEDIUM OF INSTRUCTION**

Medium of Instruction	N	Mean	SD	t-value	Table value	Remark at 5% level
Tamil	140	93.52	7.37	1.67	1.96	Not significant
English	160	92.43	8.60			

It is inferred from the above table that the calculated 't' value is 1.67, which is less than the table value 1.96 at 5% level of significance. Hence hypothesis is accepted. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Medium of instruction

**FIGURE 03**  
**DISTRIBUTION OF SAMPLE ON COMPUTER SELF-EFFICACY TO MEDIUM OF INSTRUCTION**



#### **HYPOTHESIS NO: 4**

There is no significant difference between the computer self-efficacy of higher secondary students with respect to Locality

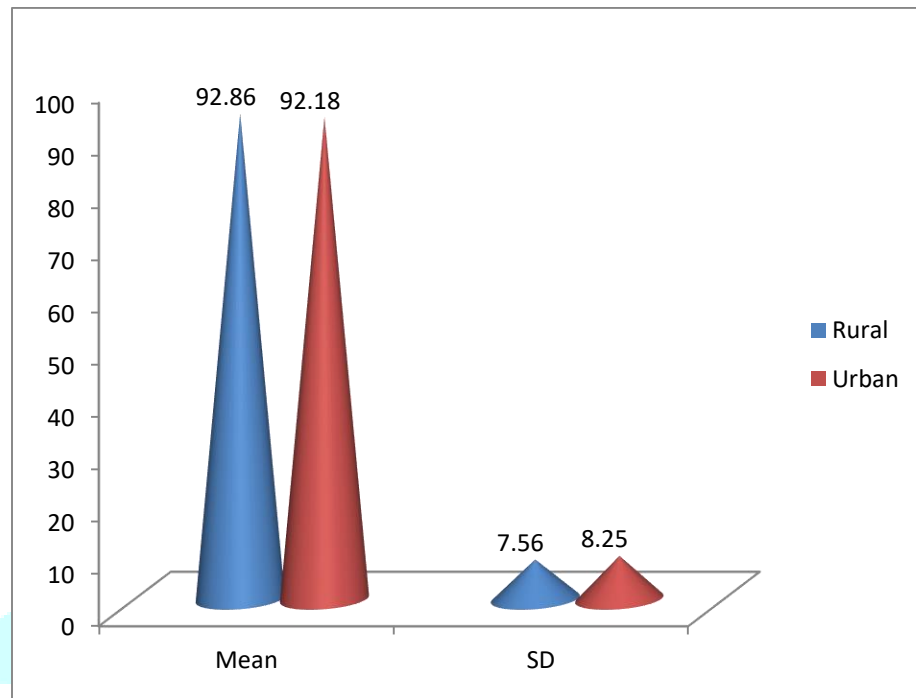
**TABLE-04**  
**MEAN DIFFERENCE BETWEEN THE COMPUTER SELF-EFFICACY OF HIGHER SECONDARY STUDENTS WITH RESPECT TO LOCALITY**

Locality	N	Mean	SD	t-value	Table value	Remark at 5% level
Rural	150	92.86	7.56	1.72	1.96	Not significant
Urban	150	92.18	8.25			

It is inferred from the above table that the calculated 't' value is 1.72, which is less than the table value 1.96 at 5% level of significance. Hence hypothesis is accepted. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Locality

FIGURE 04

## DISTRIBUTION OF SAMPLE ON COMPUTER SELF-EFFICACY TO LOCALITY



## HYPOTHESIS NO: 5

There is no significant difference between the computer self-efficacy of higher secondary students with respect to Availability of computer at home

TABLE-05

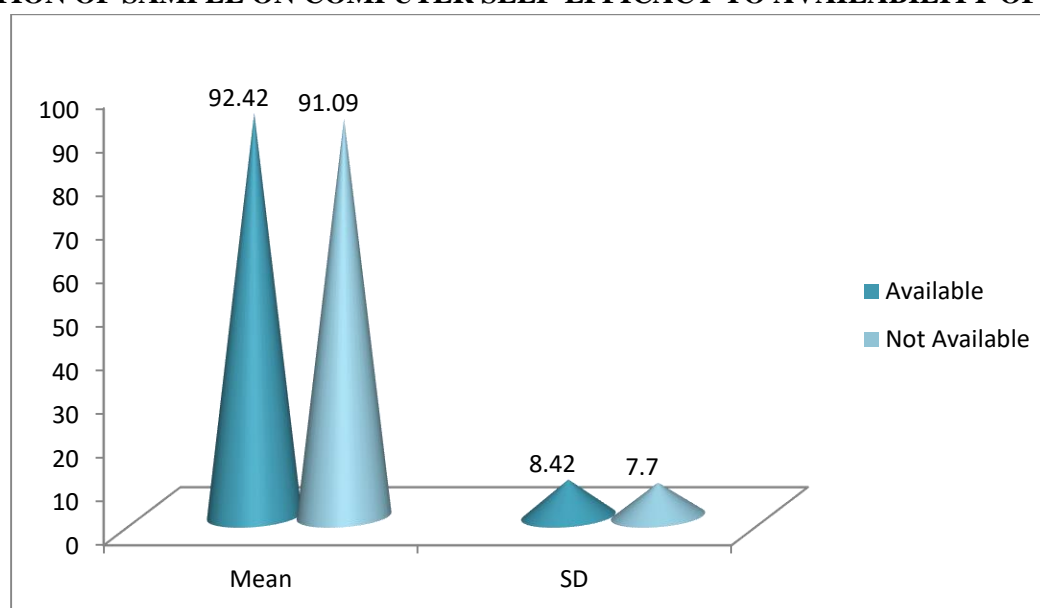
## MEAN DIFFERENCE BETWEEN THE COMPUTER SELF-EFFICACY OF HIGHER SECONDARY STUDENTS WITH RESPECT TO AVAILABILITY OF COMPUTER AT HOME

Availability of Computer	N	Mean	SD	t-value	Table value	Remark at 5% level
Available	135	92.42	8.42	1.25	1.96	Not Significant
Not Available	165	91.09	7.70			

It is inferred from the above table that the calculated 't' value is 1.25, which is less than the table value 1.96 at 5% level of significance. Hence hypothesis is accepted. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Availability of computer at home.

FIGURE 05

## DISTRIBUTION OF SAMPLE ON COMPUTER SELF-EFFICACY TO AVAILABILITY OF COMPUTER



## FINDING OF THE STUDY

1. There is significant difference between the computer self-efficacy of higher secondary students with respect to Gender.
2. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Type of Management.
3. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Medium of instruction
4. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Locality
5. There is no significant difference between the computer self-efficacy of higher secondary students with respect to Availability of computer at home

## SUGGESTIONS FOR FURTHER STUDY

1. A similar investigation may be undertaken for the students studying in other Districts of Tamilnadu.
2. A similar study may be conducted among technical and professional course students.
3. Experimental study may be conducted to find out the impact of the academic achievement of students.
4. Students Computer self-efficacy in relation to other psychological variables can be studied.
5. A similar investigation may be undertaken to compare the students studying at different levels.

## CONCLUSION

Education is the greatest asset for every human being. It is the backbone of the overall development of individual as well as nation. In the ancient period education took place simply through oral lectures, dialogues, reading books, use of chalks and blackboard. Moreover traditional system of education is based on a teacher-centered education. But in the modern society, technology brought greater improvements in the education system because technology plays an important role in student-centered education. With the help of technology, students can progress at their own Pace and can become an active participant to receive information. Technology offers an opportunity to the students to accommodate different learning styles and motivate them to self-improvement and self-learning. It benefits both strong and weak students with their particular demands. The use of several multimedia resources such as television, videos, computer and internet provides more challenging and engaging learning environment for students. Technology aids student expression. Use of technology in classroom instruction ensures co-ordination of working of „head“ „eyes“ and „ears“. It provokes thinking, gives an opportunity to see, handle and manipulate things and express views and comment upon. With technological aids, students can make a creative presentation of the information they have acquired. Through the use of technology students can have an easy access to resource persons, mentors, researchers, professionals, and peers throughout the world. Technology can advance the learning process by making it faster, cheaper and wider reaching which were not possible before. It plays a vital role in developing good citizens to the information society by reframing the teaching learning process.

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