

**POST GRADUATE CERTIFICATE**

**In**

**CONTEMPORARY EDUCATION PERSPECTIVES**

**PEDAGOGY OF SCIENCE**

**Research Project**

***A STUDY OF EFFECTIVE IMPLEMENTATION OF  
TALP TRAINING IN THE FACILITATION OF SCIENCE  
IN SELECTED TALP SCHOOLS OF SHIMOGA***

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## **RESEARCH QUESTION**

***A study of effective implementation of TALP training in the facilitation of science in selected TALP schools of Shimoga***

## **PURPOSE OF THE STUDY**

The State and the Central government are supporting the education department specially teachers to strengthen academically in order to bring quality in education. Computer literacy is the need of the day. Researchers have suggested that IT plays three crucial roles in fostering learning. It acts as a driver to promote learning, projecting learners into a global knowledge society that requires a high level of IT proficiency for success in everyday pursuits. It acts as a bridge to high academic achievement and to more engaged, relevant, meaningful and personalized learning all of which can lead to higher academic achievement. IT acts as a platform for informed decision-making and provides a platform for the use of meaningful data to shape learning opportunities. (Gibson 2002, Gulbahar,2007 and Nance,2003). Hence it is very important from secondary school teachers' point of view to have the computer skills so that they can use it effectively in their teaching-learning process in inculcating the computer knowledge and skills. So in the present study an attempt was made to know the effective implementation of TALP training in the facilitation of Science in secondary schools. This study is being undertaken to find out how effectively the dream project in the field of Education in Karnataka ie., it@schools in Karnataka is having its influence in the teaching-learning process in secondary schools through TALP (Technology Assisted Learning Program) . An effort is done to know the change in the attitude of science teachers and students towards the understanding of the

concepts. It is also tried to know if there are any hurdles for the implementation of technology assisted learning in schools.

### **OBJECTIVES OF THE STUDY**

1. To study the integration of ICT in education system
2. Role of ICT in the professional development of teachers in building professional learning community
3. Best utilization of the ICT infrastructure of the school for teaching-learning process
4. To study the role of teachers to motivate students in the understanding of concepts through the mediation of ICT
5. To effectively use ICT tools, software applications and digital resources
6. To integrate ICT into teaching-learning and its evaluation
7. To acquire ,organize and create their own digital resources
8. To compare the knowledge about computers before and after the TALP training
9. To know the ability in using computer technology in various aspects like online ticket booking, online money transaction, etc.,
10. To know about the knowledge hunting through various websites
11. To know about the areas where the TALP knowledge is being used
12. To familiarize with the students' opinion regarding science teacher's utilization of TALP training knowledge
13. To study students' point of view regarding learning through computer
14. To study headmaster's opinion regarding TALP trained science teacher's utilization of technology in office and classroom.

15. To know about the hurdles faced by the teachers/school in the implementation of technology in teaching-learning process

## **RESEARCH METHODOLOGY**

### **Type of Research : Qualitative Research**

### **Variables of the study**

Following variables are considered for the present study

**Type of schools:** Selected TALP schools of Shimoga District

### **Teacher subject background :**

**Science teachers :** It refers to the teachers teaching science for 8<sup>th</sup> ,9<sup>th</sup> and 10<sup>th</sup> standard students.

### **Sampling**

The study cannot be undertaken without the selection of the sample. The study of entire target population is practically not possible. Cost, time and other factors come the way of studying of the target population. Sampling makes the research feasible within the available resources. The study includes a sample of nearly Science teachers of 35 TALP schools of Shimoga district. 5 TALP schools were selected from each taluk of Shimoga district by Random Selection Method.

### **Research tool**

Questionnaires were selected as a major tool for the study.

Three types of questionnaires were opted for the study. They are

1. Teacher's questionnaire
2. Questionnaire for Headmaster/Headmistress
3. Questionnaire for students

**1. Teacher's questionnaire :**

It had two parts namely personal information and Academic information. It aimed at collecting teacher's knowledge of computers prior and after the TALP training, their usage of technology in various fields like online transaction, communication, shopping. Implementation of knowledge of TALP training in teaching process and its utilization for school work and for the personality development of the teacher.

**2. Questionnaire for Headmaster/Headmistress**

This questionnaire is to draw the Headmaster's opinion regarding the science teacher's involvement in the class teaching, assistance in office work with respect to technology and also to know the attitude of the teacher and the effect on the students after adopting the ideas/knowledge of TALP training in the classroom.

**3. Questionnaire for students**

Through this questionnaire, an effort is being done to know the attitude of students towards the involvement of technology in the facilitation of science.

**Procedure for Data collection**

The sample schools were selected by random selection method. 3 questionnaires were prepared and the selected schools were visited by the researcher and data was collected from the science teachers, students and the head of the institution.

## CONCLUSION AND RECOMMENDATIONS

The role of ICTs in the education is recurring and unavoidable. Rapid changes in the technologies are indicating that the role of ICT in future will grow tremendously in the education. By observing current activities and practices in the education, we can say the development of ICTs within education has strongly affected on What is learned? How it is learned? When & where learning takes place ? and Who is learning and who is teaching?. Brown (2001) states that computer is an interactive audio and visual technology in which it could enhance the teaching and learning process to be fun, interactive co-operative as well as effective in imparting linguistic values. The teachers could use ICT to help them in teaching the lesson. The success of the training depends on the effective implementation at the working place. The following conclusion could be drawn out of the findings of the study

1. There is considerable increase in the teachers' knowledge about computers after obtaining the TALP training
2. More orientation towards the utilization of online services like ticket booking, money transaction, etc has saved the time and also exposure to the wide world of knowledge
3. The browsing activity of various science related websites by the TALP trained teachers shows their interest in gathering knowledge from various sources and its dissemination to the students and to other teachers and the society.
4. The trained teachers have developed various e-contents, e-resources, educational videos, PPTs , etc., which are helpful in making the teaching-learning process an attractive one. They also share it with the subject teacher groups so that majority are benefited in the educational society.
5. TALP training has its influence in the classroom in the presentation process which has promoted the concept clarity among the students.

6. Though TALP is an innovative program to make the teachers and the students computer literate, its implementation in schools is not an easy task. The teachers have to face many problems in implementing the technology. The State government is taking various steps to strengthen the computer labs by developing the infrastructure, providing required computers, projectors, laptops, internet facility, etc.,
7. Through TALP training the teachers are enriched in typing and browsing ability of the teachers. Hence, it has reduced their dependence on outsources for question paper typing, printing, etc.,
8. Out of 35 schools under study, nearly 33 school students showed change in their understanding of the subject by the implementation of TALP in the teaching process.
9. Influenced by by TALP training and its implications in personal and professional life, the teachers need to upgrade their knowledge in technology field.
10. By the study it has been observed that TALP training has created technology oriented environment in schools and the teachers and the students are moving towards innovative ideas in teaching-learning field
11. The students have opined that nearly 31 teachers are using technology successfully in the classroom
12. SMART class has increased the curiosity level of the students. The usage of technology in science class has motivated other teachers to make their teaching process a SMART one.
13. Influenced by the technology orientation in the class, the students would like to become computer literate.
14. Only few teachers finding it difficult to incorporate the technology in their teaching process.
15. Few schools suffer from the lack of continuous power supply, UPS problem, no internet facility, lack of interest, non availability of computers, projectors, their maintenance, etc.,

## **RECOMMENDATIONS**

1. Availability should be made for basic facilities like continuous power supply, provision of UPS, internet facility, availability of computers, projectors for the implementation in the TALP schools
2. Provision for atleast 2 classes a week /class should be made in the timetable
3. Every TALP trained teacher should be insisted to inculcate technology in the facilitation process.
4. Sharing of innovative practices of TALP trained teachers should be made to encourage the teaching community regarding the usage of technology in the facilitation process

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