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Promoting computer knowledge among D.T.Ed students

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Abstract
Computer is playing very vital role in every aspect of life, especially in the teaching and learning process. Present days teachers are widely using computer in classroom for different purpose such as instruction, evaluation, ranking etc. The main objective of this study is to find out the Computer Knowledge among Teacher Trainees'. The variable of this study was computer knowledge as dependent variable and electronic presentation as independent variable. The investigator adopted single group experimental method. The study was conducted during the academic year 2011-2012 (while intensive practice– M.Ed. Programme). The investigator selected 60 student teachers from Sri Ragavendar Institute of Teacher Training at K. Singarakottai, Dindigul district. The sampling technique used in the study was non-probability convenience sampling technique. The intervention strategies contains, Basic computer, OS, Storage devices, MS word, MS excel, MS PowerPoint, MS Access, Internet and HTML. Mean, Standard deviation and 't'value used to analyse the data. The findings of the study reveals that, there is a significant difference in the achievement of the Post-test scores over the Pre-test scores of D.T.Ed teacher trainees' in Basic computer knowledge due to the exposure of electronic presentation based learning.

Keywords: Computer Knowledge, Electronic Presentation, D.T.Ed Students and Computer Basics

1. Introduction
By computer education, we mean, gaining the know-how of the basic concepts related to a computer and gaining the basic knowledge of computer operation. Knowing about the basic components of a computer, the basic concepts behind the use of computers and the know-how of some of the elementary computer applications constitutes computer education. Learning about the computer basics followed by a practical experience of using a computer is the key to computer education. As computers are widely used today, acquiring computer education is the need of the day.

Computers are not only storage devices and processing units, but also are excellent communication media. They are the means to access the Internet and get connected to the world. They are also an effective audio-visual media. Computers can be used to access a vast knowledge base and search for information archives over the Internet. Only computer education can facilitate the use of computers for purposes of communication and entertainment. Importance of Computer Education in Teacher Education

It is a known fact that no field is untouched by computers. Unless one has the ability to make use of computers in the respective fields, he/she is considered to be an illiterate, even though he/she is educated. He / she is known as an educated illiterate in the modern era. A computer literate is a person having a basic understanding of the computers and is able to use it for his own benefit.

The awareness of computer literacy among the students, teachers and parents is needed. Computer education has assumed immense significance in the education system of the country. Strengthening the pre-service teachers' content of knowledge as well as presenting the content in a way which helps them to discover how to turn the power of computer technology into teaching tools that captivate students, motivate them and ultimately move them towards greater learning.

Hence, computer education should form an integral part of the teacher education programme. Even though integration of computer education into the teacher education curriculum has started already it has not been implemented effectively in all the teacher education colleges.

Hence, the present study attempts to assess the computer knowledge among teacher trainees'.

Scope of the study

"Basic computer knowledge" covers a wide variety of topics. The most basic functions include turning a computer on and off, starting and closing programs and findings help if needed. These skills require little more than a quick demonstration for most people. Other basic computer skills are a bit more complicated but needed, nonetheless. For someone without basic computer skills, the list of training should include using word processing programs.

The investigator selected the following basic computer knowledge included some of the basic of computer literacy and practical activities in MS-Office. The scope is limited to use of Input devices, Output devices, MS-Word, MS-Excel, MS-PowerPoint, Operating system, Internet, Windows movie maker, HTML for D.T.Ed teacher trainees.

Need for the Study

Student teacher trainees' have lack of computer knowledge. This electronic presentation used to improve basic skill of computer knowledge. As is known self-experience is the best experience. The same principle can be applied in the development of electronic presentation. All the concepts are developed based on simple to complex logic so that the learner does not find difficult in electronic presentation. It is possible for man to educate himself without help or support from others.

Statement of the problem

The computer plays an important role in lifelong education and enables students to acquire knowledge and explore possibilities to solve problems. Computer technology is likely to influence education enormously and can play an important role in enhancing the efficiency of the teaching-learning process, making children more creative and providing them with an individualized learning environment. Computer is very effective for teaching, learning, analysis and evaluation. Now-a-day continuous use of computer to increase in society, teacher and student must prepare for the use of computer with in the classroom. Hence, the present study entitled *"Promoting Computer Knowledge among D.T.Ed Students"*.

Key terms

- **Promote:** To put ahead to the next higher stage or grade of a course on series of classes.
- **Computer knowledge:** Computer skills refer to the ability to use the software and hardware of a computer.
- **D.T.Ed:** Diploma in Teacher Education is teacher training course after +2 Level for professional development of Elementary teacher in Tamilnadu with two years duration.

Variables

A variable is a characteristic of a person, object or phenomenon that can take on different values. Variables are the conditions or characteristic that the researcher manipulates, controls or observes. A variable is anything that changes.

The following are the variables which the investigator has taken for this study.

- Dependent variable : Computer Knowledge
- Independent variable : Electronic Presentation or PowerPoint presentation (D.T.Ed)

Objectives

- To test the computer knowledge among D.T.Ed students
- To promote computer knowledge among D.T.Ed students through electronic presentation based learning.

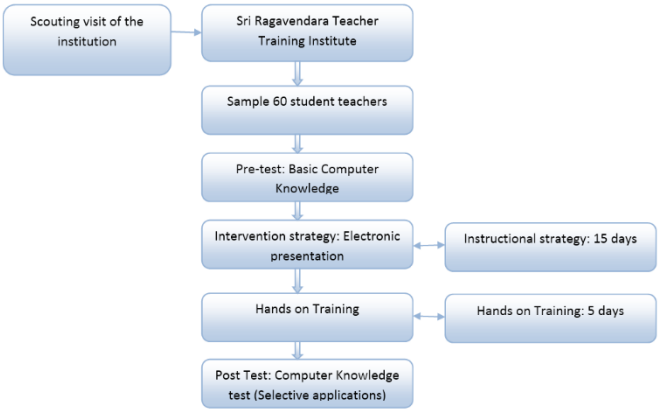
Hypothesis

- There is significant difference between pre and post-test scores of Computer Knowledge test among D.T.Ed Students.

Method

- Investigator used in present study single group-experimental method.

Experimental design



Sample

The investigator has selected 60 student teachers class of both first and second year students from Sri Ragavendar Institute of teacher trainings at K. Singarakottai. The sampling technique used in the study is non-probability convenience sampling technique.

Intervention Strategies

1. Introduction to computer
2. Operating system (basic)
3. Storage devices
4. MS-Word
5. MS-Excel
6. MS-Power point
7. MS Access
8. Software installation
9. Internet
10. HTMT

Data analyses

Table 1.1: Mean, SD and 't' Value for the Pre-test and Post-test scores of Basic Computer Skills among D.T.Ed students.

	Number of participants	Mean	Standard Deviation	Calculated 't' value	Result at 0.05 level
Pre-test	60	19.03	3.36	22.85*	significant
Post-test	60	34.20	3.88		

The Mean scores of Pre-test were 19.03 and 34.20 respectively, and Standard deviation was 3.36 and 3.88 respectively. The 't' value calculated indicates that the differences in this scores are significant between the Pre-test and Post-test as calculated 't' value is 22.85 is higher than the table 't' value 1.96 at 0.05 level. Hence, the alternative hypothesis accepted and concluded that there is significant difference between Mean scores of the Pre-test and Post-test scores of the students.

The Pre-test and Post-test't' value in computer achievement

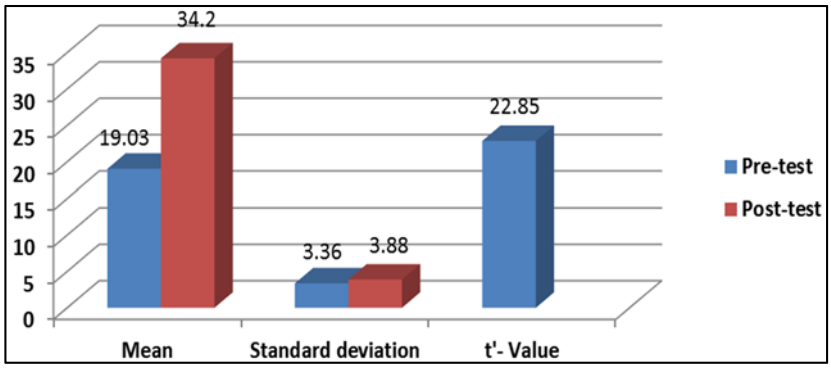


Fig 1.1: Experimental group (single group design)

Findings

- There is a significant difference between the pre-test and post-test scores of Computer Knowledge among teacher trainees'.
- 50% of student teacher trainee's very poor knowledge in Basic Computer Knowledge.
- 10 days hands on training given to D.T.Ed., teacher trainees' and manually improved their practical skills.
- Finally investigator conduct post-test who were all got 'C' Grade in pre-test, they were all upgraded in the post test, one grade to another grade like 'C' Grade to 'B' Grade; 'C' Grade to 'A' Grade;

Educational Implications

Results of the experiment imply that effectiveness of computer teaching strongly influences the achievement of the students in diploma teacher trainees. This implication helps formulation of some practical guidance so as to modify the present practice of teaching and learning process.

- The major outcome of the experiment highlights the computer teaching for diploma teacher trainees. The students learnt through electronic presentation have recorded higher achievement than they recorded in conventional teaching.
- This will help in catering to the individual differences in the abilities of the students.
- This will also help in giving uniform attention to all the students prevailing in the classroom.
- Friendliness and mutual trust of the students can be gained by the teacher through this type of provision of joyful and rewarding learning environment.
- It provides opportunities for peer tutoring to both high and low achievers
- Computer based learning will make students accountable for their learning and given them a sense of power and ownership in the ultimate outcome learning.
- The limited intervention of the teacher, at moments of need, promotes learning.
- Any resourceful and committed teacher can adopt this technique in the class.
- It limits the amount of written work until the students gain more proficiency in writing.

Conclusion

Computer knowledge is inevitable in 21st Century; especially teachers must know basic computer operation. They must know and use modern instructional technologies which are helpful the diverse need of digital native children. The experimental study reveals that there is a significant difference in the achievement of the Post-test scores over the Pre-test scores of D.T.Ed student teacher trainee's in Basic computer knowledge due to the exposure of electronic presentation based learning. Thus electronic presentation helps the students to sustain their interest and also their retention power compared to the Traditional method of teaching. The intervention strategies has contains, Basic computer, OS, Storage devices, MS word, MS excel, MS PowerPoint, MS Access, Internet and HTML which are made in electronic presentation to promote the computer knowledge among teacher trainees'. The constant use of electronic presentation will make students teacher trainee's understand more Basic Computer knowledge.

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