Study Of Developing Ict Skill Of B.Ed Students

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Abstract:
The study surveyed effectiveness of developing ICT skill program of B.Ed students of D.Y.Patil College of Education.Three objective and assumption guided the study.The study adopted a research design. The population of the study comprised undergraduate student of Dr.D.Y.Patil college of education with a total 50 students.Two sample groups were used to study effectiveness of developing ICT skill of B.Ed students.Experimental method was selected for research. Pre- test and post- test was conducted. The result of study has revealed that deliberate attempt by the teacher educator to develop ICT skills among the students is highly effective.The programme developed was effective and Mean of pre test is increased from 19.72 to 24.06 in post test .Thus the study concluded the ICT kills are the abilities developed gradually constant practices,frequent re- teaching and review are necessary as in the development of ICT skills.

Keyword:ICT- Information and Communication Technology .B.Ed. –Bachelor of Education, Reteaching:Teaching Again

INTRODUCTION

The age of knowledge explosion ICT has taken a predominant position. ICT has a great quality that overcomes old barriers in the way of transforming new knowledge to the masses. The great changes have been brought about by the ICT in the teaching and learning on the various stages of education. Teachers can use technology in the classroom for teaching to collect the resources for teaching to get updated knowledge, etc.

1.1 ICT And Teacher Education:

The teaching profession is becoming one of the most 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. As new concepts of learning have evolved, teachers are expected to facilitate learning and make it meaningful to individual learners rather than just to provide knowledge and skills. Rapid development in ICT, especially the internet, traditional initial teacher training, as well as in-service continued training, institutions worldwide are undergoing a rapid change in the structure and content of their training and delivery methods of their courses. Combining new technologies with effective pedagogy has become a daunting task for both initial teacher training and in-service training institutions.

Today, we live in the age of science and technology. The credit goes to man’s intelligence and his research attitude, which have promoted him from wild life to really delightful and aggressive life that we live today. In the present situation, human beings have developed broad attitudes through the impact of this scientific technology age. At present age, many types of computers are in a process, and their usages are increasing, and each one can be optimized to use a computer in their lifestyle. ICT is a place for each and every factor of human beings, and they totally depend upon ICT for their speed, accuracy, and updating knowledge. The world's high-speed supercomputer was made by an Indian named Mr. Vijay Bhatkar. He gave to our country, among all nations in the world, name and fame. But the information and communication technology use in teaching-learning processes is really helpful to clear concepts and ideas of a new teacher trainee as well as all teacher educators also. Empirical studies indicate a favorable correlation between educators' utilization of ICT and enhanced student performance, as demonstrated by elevated mean percentage scores. (Natividad et al., 2024).The implementation of adaptive learning systems and online platforms facilitates customized learning experiences, addressing the varied needs of students (MPS). (Ashish & Anitha, 2024)

1.3 Concept of information and communication technology (ICT)

ICT is defined as a scientific, technological, and engineering discipline and management teaching used in information handling and processing, their interaction with men and machines, and associated social, economic, and cultural matters (UNESCO 1968). ICT is the accelerating place of change and diversity in the development of physical infrastructure. The spread of distributed connectives. Enhanced context and network management capabilities. The emerging social web continues selective and technological innovation. The integration of Information and Communication Technology (ICT) has been associated with

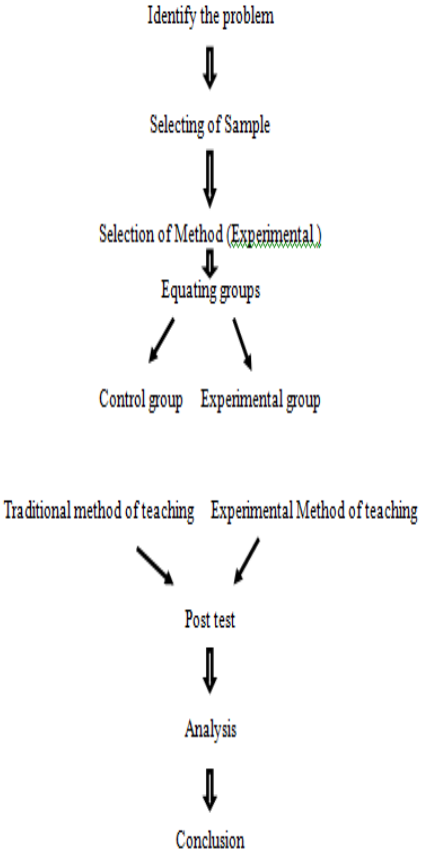
heightened student motivation and engagement, representing a departure from conventional pedagogical approaches. (Bharti et al., 2024)

STATEMENT OF THE PROBLEM:
"STUDY OF DEVELOPING ICT SKILL OF B.ED STUDENTS"
Research is in common reference to a search for knowledge. The meaning of research is "a careful investigation or an inquiry, especially through the research for new facts in any branch of knowledge (Redman and Mory, 1989).

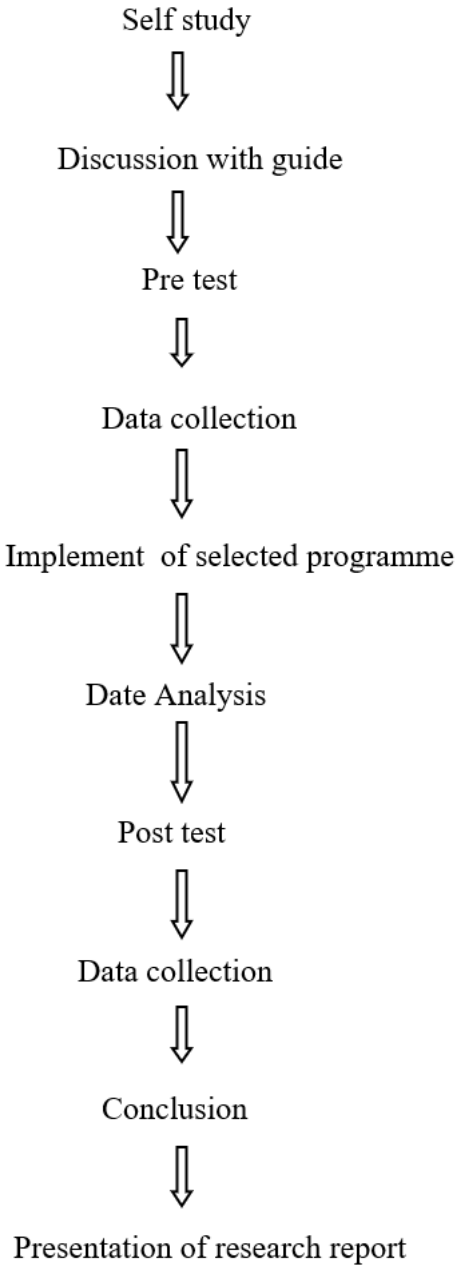
OBJECTIVE OF RESEARCH:
1) To develop an ICT skill program among B.Ed students.
2) To execute the ICT skill program
3) To find out the effectiveness of the ICT skill program among B.Ed students

METHODS AND MATERIALS
MATERIALS:
1)Population:
The population of this research is first-year B.Ed students of Dr. D.Y. Patil College of Education, Pimpri.
2)Sampling: The sampling size of 50 students for the study.

METHODS:
Research design and methodology can be defined as the plan and structure of inquiry formulated in order to obtain answers to research questions on business aspects. The research plan or design constitutes the overall program of the research process. The design and methodology include the framework of the entire research process, starting from formulating objectives and developing hypotheses to the final evaluation of cancelled primary data.



Implication of Research Methodology :



The study was conducted in two phases.
Phase I: Designing the instructional program for developing ICT skills.
Phase II: Experimental validation of the instructional program

Preparation:
a) Pre-Achievement on ICT Skills: ICT skills are not generally explicitly taught and tested in the college setting. There was also no test available to test the achievement of ICT skills being developed through the study. So a separate achievement test had to be designed to measure the acquisition of ICT skills before and after the experiment.

b) Post Achievement test on ICT skills: A parallel forms test designed to measure achievement of ICT skills among the students. While one of the forms was used to measure pre-achievement of ICT skills. The other form was used to measure the post-achievement of ICT skills among the students after the treatment. The post achievement on ICT skills was considered a dependent variable. During Level One of Phase II of the treatment, a specially designed instruction program for developing ICT skills among the learner was

used. The instructional program being in the form of self-learning materials, the students had to learn the ten ICT skills, namely MS Office skills, file management skills, internet skills, Web 2.0 skills, software-related skills, internet/computer safety skills, online resource use skills, peripheral-related skills/essential skills for computers/technical skills, social networking-related skills, and day-to-day use of ICT-related skills.

Steps:
1. The oriented the students about ICT skills, needed to learn, and motivated them to the learning of ICT skills.
2. Distribution of the booklet "Instruction to Use" to each of the students, which guided them in the use of the instructional program.
3. Each of the students was given a booklet on the ICT skill.
4 The students were busy working with the instructional program; the investigator circulated among the students and monitored their learning test. They should come across any problem during their study.
5. When a few students approached the investigator for help, they were guided accordingly. The guidance was mainly in the form of the place where the responses had to be indicated in the answer sheet.
6. The requirement of the instructional program was that when the students completed their activities, they approached the investigator to find the correctness of their performed activities.
7. When the activities performed by them were found correct, the students were asked to proceed to the performance of further activities.
8. This ensured that all the students performed the required activities and got them during different stages as given in the instructional program.
9. After each student completed the learning of an ICT skill correctly, she was given the booklet on the next ICT skill in sequence.
10 The students completed the booklet on the ICT skill.
In 17 periods of 40 min. during each test estimated to complete the instructional program on ICT skills, they were allowed to go at their own pace to complete all the activities correctly given in the form of self-learning material in the instructional program. This ensured the mastery of learning of all the ICT skills included in the instructional program. Soon after 40 min., the students were asked to stop using the instructional program and deposit the booklet with the investigator. After the completion of learning each of the ICT skills correctly, the students were allowed to keep all the booklets with them for reference.
All the students completed working on all the activities given in the booklet on different ICT skills. This required 17 lectures of 40 minutes duration each for the different students of the experimental group.

Treatment For The Control Group:
The control group was handled by a regular classroom teacher of the college who had put in a long experience of teaching ICT skills according to the B.Ed course.\

Development Of TheTest: Two sets of test items were designed on ICT skills selected for the study.An adequate number of items to test each of the ICT skills were written with an allocation of marks.

Description Of The Tests: The tests on ICT skills are a group-administered paper-and-pencil test for a duration of one hour. It was a question paper cum answer paper. These are 30 questions that covered the testing of all the ten ICT skills chosen in the study.

Scoring Of The Test: The responses of all the students were scored. One mark was awarded to each correct response. No mark was deducted for the wrong answer. The makes that the students could get on each of the tests ranged from 0 to 30.

Pre-Achievement On ICT Skills: It is observed the ICT skills are not generally explicitly taught and tested. There was also no test available to test the achievement of ICT skills being developed through the study. So a separate achievement test had to be designed to measure the acquisition of ICT skills before and after the experiment. Thus, a parallel forms test was designed on ICT skills that was used during the treatment. One of the forms was used to measure the pre-achievement of ICT skills.

Post Achievement On ICT Skills: A parallel forms test was designed by the investigator to measure achievement of ICT skills among the students. While one of the forms was used to measure pre-achievement of ICT skills, the other form was used to measure the post-achievement of ICT skills among the students after the treatment. The post achievement on ICT skills was considered a dependent variable.

Pre test ⟶ Treatment ⟶ Post test

The test was carried out with the following phases:
1) Finding the inputs to ICT Skill Representation
2) Provisions for developing ICT skills
3) Finding the practices in developing ICT skills
4) Identifying the level of ICT skill
5) Selecting the sample for the experiment.
1. Conducting the pre-test for the experimental group.
2. Applying the different strategies for developing ICT skills
3. Conducting the post-test
4. Identifying the students for knowing information about ICT skills.
5. Applying statistical treatment to acquired data
6. Identifying educational implications
Presentation of research:

Table No.1 Pretest and post test marks

Students	Pre-teat	Post test
A	22	25
B	23	24
C	16	22
D	18	20
E	11	22
F	17	25
G	20	27
H	19	23
I	17	21
J	16	24
k	25	28
L	27	29
M	18	22
N	18	21
O	26	30
P	14	28
Q	16	21
R	18	26
S	21	27
T	23	28
U	25	30
V	24	27
W	23	28
X	18	24
Y	16	23
Z	13	24
Aa	27	30
Ab	17	22
Ac	23	29
Ad	18	22
AE	19	25
AF	19	24
Ag	16	23
Ah	23	29
AI	26	30
Aj	18	21
Ak	16	23
Al	22	27
Am	17	22
An	18	26

Ao	18	23
Ap	16	24
Aq	24	26
Ar	18	21
As	23	27
At	24	28
Au	23	27
Av	24	29
Ax	16	22
Ay	17	24
Total	**986**	**1220**

Statistics

A) Mean 1

986/50=19.72

Mean of pre-Test=19.72

B) Mean 2

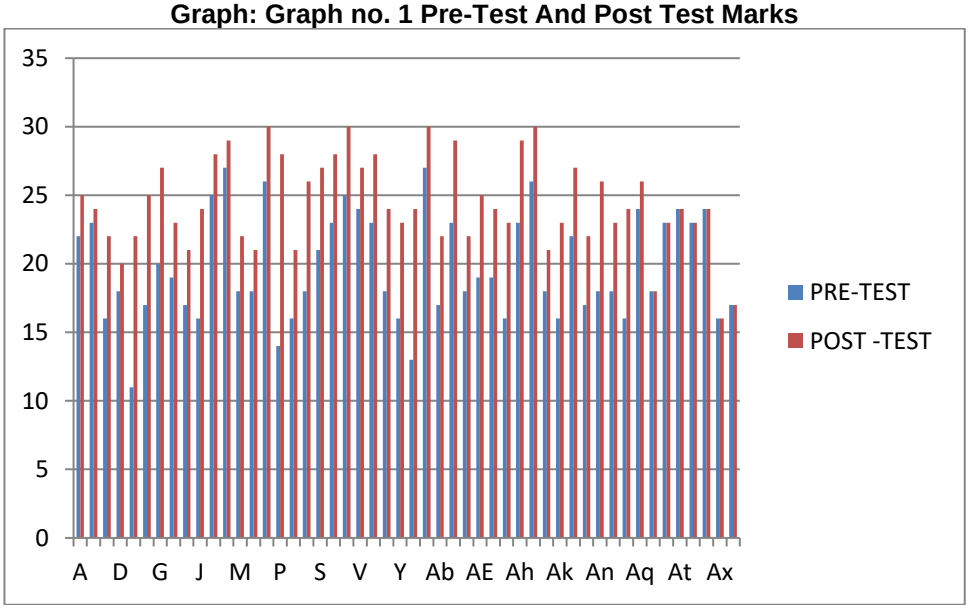
1220/50

Mean of Post test+24.04

The Mean of Pre-test is increased from 19.72 to 24.04 in post test

There is a gain of 4.32 score points. From above, we can conclude that there is improvement in students scores through the program.

Graph: Graph no. 1 Pre-Test And Post Test Marks



Result

The program developed was effective, and the results are significant. The mean of the pre-test is increased from 19.72 to 24.06 in the post-test. The performance of students improved after conducting the program of ICT skills.

Discussion

The performance of the students in teaching can be improved by using ICT skills. The knowledge of ICT skills has proven to be effective in proving the understanding of any kind of teaching techniques. The post-tests were given following the conduct of instructional classes with each of the strategies selected for the experiment. It has been found that the pre-test performances were far below the levels of performance assessed. The researcher has also been able to test all of his hypotheses and prove all of them as correct with test values. In the considered opinion of the researcher and the performance of the students participating in the study, the strategies selected for imparting ICT skills to the students stand validated as useful and effective methods of learning. The self-test and the achievement test results have proved that the ICT skills could be better taught using selected strategies than in the normal instructional modes followed. This proves the effectiveness of the selected strategies for ICT skills.

Conclusion:
It reveals that all mean scores in the post-test are greater than the pre-test mean score. Hence, the strategies adopted for improving ICT skills for the students proved to be very effective. The study is on the effectiveness of a selected set of strategies for imparting ICT skills to the research design. It is primarily in the pre-testing of the students before the introduction of the selected strategies and then post-testing.

Recommendation:
The selected strategies adopted for developing ICT skills can be used for the regular classroom in learning and teaching. The selected strategies adopted for developing the ICT skills can be used in enhancing the knowledge, understanding, and application of the students. The strategies adopted for developing ICT skills should be planned, developed, evaluated, and implemented with the help of the team of expert professors and teachers. This will be helpful in the development of ICT skills for the teaching-learning process.

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