Effectiveness of Using E-Lesson Programme in Teaching of Science & Technology

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1. Introduction

Information and communication technologies have the potential to enhance access, quality, and effectiveness in education in general and to enable the development of more and better teachers in India. This paper concludes with recommendations as to how teachers to fully adopt computer technology use in teaching and learning. The integration of ICT into classrooms seems to be more difficult than expected. Education of teachers not only facilitates improvement of school education by preparing competent, committed and professionally well qualified teachers who can meet the demand of the system, but also functions as a bridge between schooling and higher education. It has to meet twin demands: (a) challenges of the education system including higher education, and (b) the ever changing demands of the social system. The role of teacher education as a process of nation building is universally recognized. Its objective is man-making and producing enlightened citizens. If science subject has been thought by e- lesson, then as per my Openion it is the best way to perform quality in this subject by practical way.

But teacher education in India, because of its history and also due to various factors beyond its control, has by and large been confined to school education only. In order to use technology effectively, educators need to be trained in using technology and they need to develop a good understanding of it. Technology is used to enhance learning; therefore it is important for educators to be comfortable using it to ensure that students get the full advantages of educational technology. Teaching with technology is different than teaching within a typical classroom. Teachers must be trained in how to plan, create, and deliver instruction within a technological setting. It requires a different pedagogical approach. Teachers must find a way to assess students on what they take away from a class and meaningful, known knowledge, especially within an eLearning setting. Education will only change when our design methods, perspectives, and values change. Teachers have many roles when instruction is designed. They can be artists, architects, craftspeople, and engineers. Technology does not mean that using interactive electronic boards and LCD power point presentation is the most effective. So many more applications are available for students to be hands-on with their learning and gain deeper knowledge than they could before.

Technology training appears to focus mainly on technology knowledge and skills while overlooking the relationships between technology, pedagogy, and content. As a result, teachers learn about “cool” stuff, but they still have difficulty applying it for their students’ learning. Teacher candidates need opportunities to practice effective technology integration strategies in supportive contexts during technology courses, technology-integrated methods courses, and field experiences.

Experienced teachers also need opportunities to learn about new technologies and ways to integrate them effectively in their classroom. Teacher education programs can facilitate improvements not only

in students' technology skills but also in their beliefs and intentions regarding integrating technology into instruction. Technology training directly affects pre-service teachers' self-efficacy and value beliefs, which in turn influence their student-centered technology use. Information and Communication Technology (ICT) can contribute to universal access to education, equity in education, the delivery of quality learning and teaching, teachers' professional development and more efficient education management, governance and administration. So the investigator's keen desire was to probe this aspect to study the effect of e-plan programme for secondary school in Science particularly.

Teaching is one of the most challenging professions in the world. This puts an unavoidable burden on teachers to continue to update their knowledge and to expose themselves to modern channels of information. ICT have brought new possibilities into the education sector, but at the same time have placed more demands on teachers. They have to learn how to cope with computers in their classrooms. The UNESCO (2002) document 'Information and Communication Technology in Teacher Education- a Planning Guide' states that importance of ICT in teacher education. The document conveys the vital need for incorporating ICT in teacher education (in both in-service and pre-service). Teachers should know- when and how to use ICT in teaching their subject.

2. Rational of the Study

In the present time ICT has the most effective and influencing use in education. In this time students have greater exposer of the ICT and they are sometimes more advance than their teachers. Improvement in education can be brought by applying new methods of teaching. The result of the present study would guide the teachers to plan the judicious use of ICT based e-plan. The researcher observed that ICT proved effective as they were bused on the need of learners. So the researcher had decided to measure the effectiveness of computer in the learning of Science.

3. Objectives

The present study has been conducted to achieve the following objectives.

1. To develop and implement an e-plan on Science for standard X.
2. To study the effectiveness of e-plan and conventional methods in relation to previous Achievement on Science for standard X.
3. To compare the mean retention scores of students of experimental group and control group.

4. Hypotheses

The following hypotheses were formulated and tested-

1. There will be no significant difference between mean score on achievement test for control group and experimental group.
2. There will be no significant difference between the mean scores on achievement test for experimental group boys and girls in post-test.

5. Population and Sample

The main purpose of the research was to check to effectiveness of e-plan in Guajarati Science. So the researcher used purposive sampling technique for selecting two different group, one of them (50) students of were applied treatment of e-plan in Science and another 50 students were treated as the control group with traditional method of teaching, in secondary school studying in High school from the College of Education, Vadnagar Gujarat during the year of 2016-17.

6. Tools of the Study

The tools used during the researcher for collecting the data are as follows:

1. Achievement Test
2. E-plan programme

7. Research Design

The present study was developmental cum experimental in nature and consisted of two parts. The first part consisted of development of e-plan programme on Science. The second part of the study was concerned with measuring the effectiveness of the developed e-plan programme.

8. Statistical Techniques Used for Data Processing

The present study is experiment research. Hence for the analysis and interpretation of data the statistical techniques' t-test' was employed.

9. Analysis of Data

Hypothesis-1 There will be no significant difference between mean score on achievement test for control group and experimental group.

Hypothesis – 1 is rejected at 0.01 level of confidence. So the alternate research hypothesis was accepted. Thus, E-plan programme was found effective for the students of class IX.

Hypothesis- 2 There will be no significant difference between the mean scores on achievement test for experimental group Boys and Girls in post-test.

Hypothesis **– 3** is not rejected at any level of confidence. So the hypothesis was accepted. Thus, e-plan programme was found equally effective for boys and girls.

10. Major Findings of the Study

The major findings of the study are as follows:

1. There was a statistically significant difference between the mean gain scores of control group and experimental group. The significant difference found was because of e-plan programme.
2. There is no gender effect in effectiveness of e-plan programme. E-plan programme is equally effective for boys and girls.

11. Conclusion

Present research was a modest attempt to check the effectiveness of e-plan programme as an aid in teaching of Science by applied such innovative approaches in education. In conclusion, it can be said that e-plan programme could prove to be effect teaching approval if it is used in classroom.

References

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