

LANGUAGE IN INDIA

Strength for Today and Bright Hope for Tomorrow

Volume 13 : 2 February 2013

ISSN 1930-2940

Managing Editor: M. S. Thirumalai, Ph.D.

Editors: B. Mallikarjun, Ph.D.

Sam Mohanlal, Ph.D.

B. A. Sharada, Ph.D.

A. R. Fatihi, Ph.D.

Lakhan Gusain, Ph.D.

Jennifer Marie Bayer, Ph.D.

S. M. Ravichandran, Ph.D.

G. Baskaran, Ph.D.

L. Ramamoorthy, Ph.D.

Assistant Managing Editor: Swarna Thirumalai, M.A.

Impact of Multimedia Technology in Learning Biological Science on B.Ed. Trainees

P. Udayakumar, Ph.D. Research Scholar

Sri Ramakrishna Mission Vidyalaya College of Education, Coimbatore

INTRODUCTION

The problem, method adopted for the study, sample design, tools used for the study, and delimitations of the study are described below. The aim of the study is to find out the effectiveness of Multimedia Technology in learning Biological Science.

NEED AND SIGNIFICANCE OF THE STUDY

Scoring centum or more marks is necessary to get seats in professional courses. Students face many problems to score more marks in science through conventional method.

Learning in biological science appears to pose more problems to the students due to traditional method of teaching. The researcher found out an innovative learning method Multimedia Technology which provided effective learning practice to learn Biological Science in the B.Ed. colleges.

OBJECTIVES

1. To find out the learning problems of the students in learning Biological Science in B.Ed. colleges.
2. To find out whether there is any significant difference in achievement mean score

Language in India www.languageinindia.com

13 : 2 February 2013

Jayanthi College of Education Seminar on *Current Perspectives on Education*

Editors: P. Udayakumar, M.Sc., M.Phil., M.Ed., M.A., Ph.D. Candidate,

Dr. M. Lekshmanaswamy, Ph.D. and Dr. K. Dhanalakshmi, Ph.D.

between Pretest of Control group and Posttest of Control group in learning Biological Science by the students of B.Ed. classes.

3. To find out whether there is any significant difference in achievement mean score between Pretest of Experimental group and Posttest of Experimental group in learning Biological Science by the students of B.Ed. classes.
4. To find out whether there is any significant difference in achievement mean score between Posttest of control group and Posttest of Experimental group in learning Biological Science by the students of B.Ed. classes.
5. To find out the impact of Multimedia Technology in learning Biological Science in B.Ed. colleges in Coimbatore district.

HYPOTHESES

1. Students of B.Ed. have learning problems in learning Biological Science.
2. There will no significant difference in achievement mean score between Pretest of Control group and Posttest of Control group in learning Biological Science by the students of B.Ed. classes.
3. There is no significant difference in achievement mean score between Pretest of Experimental group and Posttest of Experimental group in learning Biological Science by the students of B.Ed. classes.
4. There will be no significant difference in achievement mean score between Post test of control group and Posttest of Experimental group in learning Biological Science by the students of B.Ed. classes.
5. Multimedia Technology is a more effective method than conventional method in learning Biological Science in Colleges of Education in Coimbatore district.

DELIMITATIONS

1. The study is confined to 160 B.Ed. students.
2. The study is confined to TNTEU students only.
3. The study is confined to state board syllabus of Biological Science subject only.
4. The study is confined to learning Biological Science only.

Method of Study

This experimental study was conducted to know the effectiveness of Multimedia Technology in enhancing the achievement in learning Biological Science at the B.Ed. level.

Sample Selected for the Study

The study is confined to 160 students of B.Ed., 80 Control and 80 Experimental.

Tool Used for the Study

Language in India www.languageinindia.com

13 : 2 February 2013

Jayanthi College of Education Seminar on *Current Perspectives on Education*

Editors: P. Udayakumar, M.Sc., M.Phil., M.Ed., M.A., Ph.D. Candidate,

Dr. M. Lekshmanaswamy, Ph.D. and Dr. K. Dhanalakshmi, Ph.D.

The investigator made use of self-made achievement test as the tool for conducting the study.

Sample Selection for Pilot Study

The Question paper for the pilot study was distributed to 20 students of B.Ed. colleges in Coimbatore district. The selected students were considered as sample of the pilot study. These students were selected in such a way that they were not part of either the control group or experimental group. The same sample was utilized for subsequent test in order to validate the tool, namely, the question paper for achievement test for the final study.

Reliability of the Tool

The various methods used to work out the reliability of the test include split half method, equivalent or parallel form method, test-retest method and kuder-Richardson method .

Validity of the Tool

A test is said to be valid if it measures what it intends to measure .The expert opinion of the co-staff was obtained before freezing the design of the tools. Their opinion indicated that the tool had content validity .Thus split-half method was used to establish reliability.

Final Study

Sufficient copies of the revised tool were prepared and distributed to the selected sample of students of B.Ed. for control group as well as experimental group.

Data Collection and Analysis

A total of 160 students were selected as the sample for the study. 80 of the students constituted as the experimental group and the remaining 80 constituted as the control group.

Major Findings

1. It confirms that the colleges achieve the same score in pretest and posttest in traditional method in learning Biological Science. Hence it proves that students of B.Ed. have students of learning problems in learning Biological Science.
2. There is no significant difference in achievement mean score between Pretest of Control group and Posttest of Control group in learning Biological Science by the students of B.Ed . It establishes that conventional method of teaching is not effective in learning Biological Science in B.Ed. classes.
3. There is significant difference in achievement mean score between Pretest of Experimental group and Posttest of Experimental group in learning Biological Science by the students of B.Ed. classes. It shows that Multimedia Technology is more effective in learning Biological Science in B.Ed colleges.

Language in India www.languageinindia.com

13 : 2 February 2013

Jayanthi College of Education Seminar on *Current Perspectives on Education*

Editors: P. Udayakumar, M.Sc., M.Phil., M.Ed., M.A., Ph.D. Candidate,

Dr. M. Lekshmanaswamy, Ph.D. and Dr. K. Dhanalakshmi, Ph.D.

4. Multimedia Technology is a more effective method than conventional method in learning Biological Science in B.Ed College in Coimbatore district .

Conclusion of the Study

Multimedia Technology is fairly a new area and its full potential is yet to be realized in the field of education . Any piece of knowledge on Multimedia Technology is a contribution to its knowledge base. In this way the research study of the investigator may be considered as a small but significant contribution to education . More studies that too, in different dimensions of Multimedia Technology learning is essential to understand its true worth. Hence, the research is not an end of the problem, but just a beginning of the search for innovation.

Educational Implications

Multimedia Technology can become an effective strategy in the class room teaching at the high school level.

1. Multimedia Technology is effective for learning the subject of Biological Science and related subjects.
2. Multimedia Technology is well planned and executed. It becomes resourceful in upper primary level also.
3. Multimedia Technology enhances mutual understanding and co-operation among the students at all levels and in all subjects.
4. It provides the chance of learning to the students with the help of the lecturer at the Multimedia level.

References

Apperson ,J. M.,et al. (2006) . The impact of presentation graphics on students experience in the classroom. *Computer and Education*,47(10),116-126)

Coole, G., et al.(2004) Mapping pedagogy and tools for effective learning design *Computer and Education*,43(1-2),17-33.

Kuhn,M.,et al. (2006). Computational modeling and simulation fostering new approaches in learning ty .

P. Udayakumar, Ph.D. Research Scholar
Sri Ramakrishna Mission Vidyalaya College of Education, Coimbatore,
udayaphd@gmail.com

Language in India www.languageinindia.com

13 : 2 February 2013

Jayanthi College of Education Seminar on *Current Perspectives on Education*

Editors: P. Udayakumar, M.Sc., M.Phil., M.Ed., M.A., Ph.D. Candidate,

Dr. M. Lekshmanaswamy, Ph.D. and Dr. K. Dhanalakshmi, Ph.D.