



## EFFECT OF TEACHING AIDS IN SUCCESSFUL TEACHING COMPETENCY IN TEACHING BIOLOGY FOR IX STANDARD STUDENTS

Mrs.R.Gokilavani

Ph.d Scholar, Bharathiar University, Coimbatore

**ABSTRACT** The main purpose of the study was to find out the effect of teaching aids in successful teaching competency in Anatomy of Biology for IX standard students. The investigator used simple random sampling for this study. She selected 50 samples from the T.N.G.R. Memorial Higher Secondary School. Data Analysis involved the use of mean, standard deviation, 't' test to investigate the difference between the mean. From the statistical findings, it is concluded that usage of teaching aids is more effective than conventional teaching method and also enhances the innovative competency among teaching community.

### KEYWORDS :

#### INTRODUCTION

Teachers must perform to a satisfactory level of competency to implement the curriculum. This means demonstrating a sufficient level of knowledge, skill and motivation to meet the demands and requirements of the teaching job satisfactorily. Teaching competency can be defined "as a set of abilities, knowledge and belief which a teacher possess and also uses for an effective teaching and learning process".

Rama (1979) defines teaching competence "as the ability of a teacher manifested through a set of over teacher classroom behaviors which is a result of the interaction between the process and product variables of teaching within a social setting". Considering the research studies done in the area of teaching competency, and the components specified for the concept, it is essential that some of the core components are definitely needed when we define teaching competency. They are knowledge competency, performance competency, communication competency, personal competency, social competency, innovativeness competency, management competency. The innovativeness competency includes the use of technology in class room instruction.

#### NEED FOR THE STUDY

Science is the most important subject in our day-to-day life specially Physics, Chemistry and Biology. Ordinary class room instruction does not provide opportunities for the development of abilities adequately. Hence there is a need for supplementary activities in which pupil may get more opportunities for effective use of scientific skills.

#### GENERAL OBJECTIVES OF THE STUDY

To find out the "effect of teaching Aids in successful teaching competency in teaching Anatomy of Biology for IX standard students.

#### Specific objectives of the study

- To find out the mean score difference between the pre-test and post test scores of control group on academic achievement in biology.
- To find out the mean score difference between the pre-test and post test scores of experimental Group on academic achievement in biology.
- To find out the mean score difference between the pre-test scores of control and experimental group on academic achievement in biology.
- To find out the mean score difference between the post-test of control group and experimental group on academic achievement in biology.

#### Hypothesis of the study

- There is no significant difference between the pre-test and post test scores of control group on academic achievement in biology.
- There is no significant difference between the pre-test and post test scores of experimental Group on academic achievement in biology.
- There is no significant difference between the pre-test scores of control and experimental group on academic achievement in biology.
- There is no significant difference between the post-test of control group and experimental group on academic achievement in biology.

#### Methodology of the study

The investigator employed the experimental method for the present investigation in which the single group pre-test and post-test experimental design administered to find out the effect of teaching aids in successful teaching competency in teaching Anatomy of Biology among the IX standard students.

#### Tools used for the present study

The investigator has developed the following tools for the present study

- Personal Data sheet
- Achievement Test

#### ANALYSIS AND DISCUSSION

##### HYPOTHESIS I

There is no significant difference between the pre-test and post test scores of control group on academic achievement in biology.

**Table 1**

Tests	N	M	SD	t'	Remarks
Pre-test	50	54	9.38	2.68	Significant level at 0.05 level
Post-test	50	63.44	9.38		

From the table, it is observed that the calculated 't' value 2.68 is greater than the theoretical value 2.01 at 0.05 level with df 49. Hence null hypothesis is rejected and alternative hypothesis is accepted. There is significant difference between the mean scores of pre-test and post test of control group on academic achievement in Biology

##### HYPOTHESIS-II

There is no significant difference between the pre-test and post test scores of experimental Group on academic achievement in biology.

**Table 2**

Tests	N	M	SD	t'	Remarks
Pre-test	50	54.32	10.55	7.65	Significant level at 0.05 level
Post-test	50	71.44	11.83		

From the table, it is observed that the calculated 't' value at 7.65 is greater than the theoretical value 2.01 at 0.05 level with df 49. Hence the null hypothesis is rejected and alternative hypothesis is accepted i.e. there is significant difference between the means scores at pre-test and post-test of experimental group on academic achievement in biology.

##### HYPOTHESIS-III

There is no significant difference between the pre-test scores of control and experimental group on academic achievement in biology.

**Table 3**

Group	N	M	SD	t'	Remarks
Control group	50	54	9.38	0.162	Significant level at 0.05 level
Experimental group	50	54.32	10.55		

From the table, it is observed that the calculated 't' value at 0.162 is less

than the alternate value 2.01 at 0.05 level with df 49. Hence the null hypothesis is not accepted and alternative hypothesis is accepted i.e. there is no significant difference between the Mean scores of pre-test on academic achievement with respect to control group and Experimental group.

#### HYPOTHESIS-IV

There is no significant difference between the post-test of control group and experimental group on academic achievement in biology.

**Table 4**

Group	N	M	SD	t'	Remarks
Control group	50	63.44	9.38	3.747	Significant level at 0.05 level
Experimental group	50	71.44	11.83		

From the table, it is observed that the calculated 't' value of 3.747 is greater than the theoretical value 2.01 at 0.05 level with df 49. Hence null hypothesis is not accepted and alternate hypothesis is accepted i.e. there is significant difference between the Mean scores of post-test scores on academic achievement in Biology with respect to control group and experimental group.

#### FINDINGS

1. The investigator has found out the following findings:
2. The pre test scores and post test scores of control group on academic achievement in biology differ significantly.
3. The pre test scores and post test scores of experimental group on Academic achievement in biology differ significantly.
4. The pre test scores of control group and experimental group on academic achievement in biology do not differ.
5. The post test scores of Experimental group and control group on Academic achievement in biology differ significantly.
6. The learning disabled children those who learnt science concepts through teaching aids scored more than conventional method of teaching group.

#### CONCLUSION

The investigator in this study found out a significant improvement in the achievement of students after they were exposed to various teaching aids except in the case of conventional group learning.

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