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## EFFECT OF MULTIPLE INTELLIGENCE THEORY ORIENTED INSTRUCTIONAL STRATEGY ON ACHIEVEMENT IN SCIENCE AMONG STANDARD VIII STUDENTS

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### ABSTRACT:

In the present study the researcher has made an attempt to investigate the effect of Multiple Intelligence Theory Oriented Instructional Strategy on Achievement in Science. The sample of the study consisted of 70 students studying in VIII standard in state board syllabus in Mysore city. The sample included both boys and girls. Pre and Post-test experimental design was adopted for the study. The students of experimental study were taught using MITOIS developed by the researcher. The control group was taught using traditional method. After the treatment achievement test which was developed by the researcher was administered to both the groups. The data collected was statistically analyzed and interpreted.

**KEYWORDS:** Multiple Intelligence Theory, Achievement in Science, traditional method.

### INTRODUCTION :

The world in which we live is changing rapidly and the field of education is experiencing these changes in particular when it applies to teaching and learning process. Teaching in traditional method has been the last option for teachers, as we are developing technically and finding new methods in teaching which help the teachers to cater to the needs of the students. Students are not single method learners. The styles of teaching and learning nowadays go far beyond the traditional classroom teaching within the four walls. We are in an era where teaching-learning process is improving tremendously and various interactive resources are available for both students and teachers. Though teaching through conventional method is considered as one of the most popular method and is still practiced in many of our schools till date. Through the development of technology which is slowly having its own impact in the field of education, teachers now have ample of choices to choose among various methods of teaching.

Multiple intelligence supported teaching is one of such new and novel method in teaching which helps the students in overall development with its creative and innovative style of teaching. Multiple intelligence concepts does not confines itself to numerical statistics only, instead, it gives importance to each and every intellectual aspects of a person thus making the concept of intelligence itself very broad. The concept of multiple intelligence considers all the important intellectual domains of a person like spatial, logical, mathematical, musical, kinesthetic, interpersonal and intrapersonal intelligence. Teaching physical science using all these components wherever required is really a challenge to the teacher and it may definitely help in the overall development of the student.

Traditional way of teaching science focuses on mere acquisition of knowledge and information



about scientific facts, principals, laws and theories. Science is a method of thinking, working and a way of solving problems (Ames, M.V) demands innovative ways to inculcate higher order thinking skills and science process skills among students. Multiple intelligence components can be used while teaching by the teachers specially while teaching science which caters to higher order thinking along with the traditional method

### OBJECTIVES

- To prepare multiple Intelligence Theory Oriented Instructional Strategy (MITOIS) on selected topics of science for VIII standard students.
- To find out the effectiveness of MITOIS on Achievement in science of the students of standard VIII.
- To compare the effectiveness of MITOIS in the teaching of science with traditional method of teaching of science to VIII standard students.

### HYPOTHESES

1. There is no significant difference between mean gain scores in achievement in science of students belonging to experimental group and control group in their post-test scores.
2. There is no significant difference between pre and post-test scores of the students belonging to experimental group in achievement in science.
3. There is no significant difference between boys and girls in achievement in science.

### Sample

The sample of the study consists of 70 students studying in VIII standard in state board syllabus in Mysore city. The sample includes both boys and girls.

### Tools

1. Multiple Intelligence Theory Oriented Instructional Strategy (MITOIS) developed by the investigators for selected science topics for VIII standard state board syllabus.
2. Achievement Test constructed by the investigators, validated and reliability was established using cronbach's alpha which was found to be 0.69.

### PROCEDURE OF THE STUDY

Pre and Post-test experimental design was adopted for the study. The students of experimental study were taught using MITOIS. The control group was taught using traditional method. Scores of their previous test conducted in the school was taken as pre test scores. After the treatment achievement test was administered to both the groups. The data collected was statistically analyzed and interpreted.

### Analysis and Interpretation

**Table 1: Comparative Mean Scores of Post-Test of Experimental and Control Group**

Group	N	Mean	SD	t-value	Remark
Experimental Group	35	24.31	5.95	2.03	Significant at 0.05 level
Control Group	35	23.05	7.01		

From Table-1, the t-value between experimental group and control group is greater than the table value at 0.05 level of significance. Hence the hypothesis-1 is rejected.

**Table 2: Comparative Scores of Pre and Post-Test in Achievement of Experimental group**

Group	N	Mean	SD	t-value	Remark
Pre-Test	35	24.9	7.01	2.00	Significant at 0.05 level
Post-Test	35	23.9	5.95		

From Table-2, the t-value of post test, pre test experimental group is greater than the table value at 0.05 level of significance. Hence the hypothesis-2 is rejected.

**Table 3: Comparative Scores of Boys and Girls in Achievement of Experimental group**

Group	N	Mean	SD	t-value	Remark
Boys	35	24.8	6.5	1.14	Not Significant
Girls	35	24.2	5.7		

From Table-3, the t-value is lesser than the table value. Hence the hypothesis-3 is retained.

## CONCLUSION

There is a significant difference between experimental group and control group in their post test achievement scores in science. The students taught with the help MITOIS performed better as it provides variety of learning experiences which suits them and thus help them in performing better. Teaching through multiple intelligence theory oriented instructional strategy not helps the students to perform better but also helps them to understand, analyze and apply what they have learnt practically. As MITOIS has variety of strategies students, specially the below average students are benefitted more as it helps them to understand the concepts better.

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