

## GENDER DIFFERENCE ON ACHIEVEMENT IN CHEMISTRY THROUGH MULTIMEDIA TEACHING AT SECONDARY LEVEL IN THENI DISTRICT

### Article Particulars

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### Abstract

*The present investigation was intended to study the Gender Difference on Achievement in Chemistry at Secondary level through Multimedia Teaching. The sample consisted of 70 students from Standard IX, ZKM Higher Secondary School in Theni District. It was found that Multimedia Teaching has significant gain in Achievement and there was no significant difference between boys and girls on their Achievement in chemistry.*

**Keywords:** *Secondary Level, Multimedia Teaching, Achievement in Chemistry.*

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### Introduction

“Nelson Mandela” defines education as the most powerful weapon which you use to change the world. (Imran Saleem and Ashraf Iman, 2012). Dr. Radhakrishnan commission says in it's a report that education must be universalized and equal opportunities for all be given. Each and every citizen is given education irrespective of his caste or creed, social as economic status, motivation or aptitude. (Muniruddin, 2005). The teaching - learning process is the backbone and the heart of the whole system of education. It depends on the desired objectives of education. The main objective is to bring about desirable changes in the learner. (T.Mrunalini, K.S.Sudheer Reddy 2010 Reprint). Learning is the process by which we acquire and retain attitudes, knowledge, understanding, skills and capabilities and these cannot be attributed to the inherited behaviour patterns or his physical growth. (Dr. P.K.Khanna, 2005) Methods of teaching vary according to the size of learners groups. For instance, lecture (or) seminar method is followed effectively in a big class of 40 to 50 or above and role

playing (or) brain storming techniques can be adopted with profit in a small group of 15-20. There are some age old methods like lecture, discussion, etc., which are followed invariable in most of the class rooms, particularly at the stage of higher education. Activity method, Heuristic method, project method, Traditional Method, Demonstration Method, Multimedia, etc., can promote practical skills and abilities. (Jayaprakash Reddy, 2009) Educational Technology is relatively new field which aims at solving problems of teaching and learning. Hardware and Software are two structural components of this technology and multimedia is an important aspect related to them. (Dr. Vanaja.m and Prof. Lalini Varanasi 2006) Interactive Multimedia can weave five basic types of media into a multimedia production. The five media are: Text, Image, Video, Sound, Graphics and Animation. (Dr.Vanaja.m and Prof.Lalini Varanasi, 2006). Text is a basic representation of information in multimedia. In an applied, The audio may be normal sound, music, speech, structured audio, etc. The image in multimedia may be still image (or) an animated sequence of forms. The representation of image may be in the form of clipart, Drawing, Scanned Image etc. An animation, which is synchronized with associated audio, is called as video. The video may be inform of streaming movie, full motion video (or) structured video, clips in different formats. Graphics and image are used inter chargeable in computer science. Animations are a sequence of image planes providing illusion of continuity. (Kumar, 2009). Besides methods we use various media and materials for maximizing the learning experience of students. That is why multimedia approach to learning must be used for ensuring efficiency and effectiveness. (Jagannath Mohanty, 2009)

### **Need of the Study**

The investigator is working as the Teacher Educator since 2009. During his experience, he faced a lot of problems to learn chemistry by the students. He noticed that girls study better than boys.

Even his students performed their best teaching, but still boys lack in their results than girls. This makes the investigator to find the reason behind their lacking. So there is a need of common interest between their learning. Irrespective of their Gender student's shows more interest in Cinemas, T.V shows, Mobile practices, etc. This shows that both Men and Women students show equal interest in Media. So with the changing world, the investigator planned to introduce new method like Multimedia in teaching for the students to get a better achievement.

### **Objective of the Study**

- To find out the difference between boys and girls on achievement in chemistry through Multimedia at secondary level in Theni district.

## Hypotheses

- Girls have better Achievement through Multimedia teaching than Boys at secondary level in Theni district.

## Methodology

Experimental method was used in this study. The sample is drawn by applying quota sampling technique and it consisted of 70, IX standard students from ZKM Higher Secondary School in Theni District. Four Units from two Terms of IX standard Samacheer kalvi Syllabus was taught in 9.30 hours to these students. The investigator constructed and validated the Achievement in chemistry. It consisted of 100 multiple choice questions (50 from each Term) these were selected on the basis of higher values of discrimination indices above 0.20 and difficulty indices between 25% to 75%. After the experimental treatment, a post-test was given to the samples. The statistical techniques used in this study was 't' - test.

## Results and Discussion

Differential studies identifying the differences between the Genders namely Boys and Girls of the sample by applying 't' test is given in the table 1.

Hypothesis 01: Girls have better Achievement in Multimedia teaching than Boys at secondary level in Theni district.

**Table 1 Difference between Boys and Girls on Achievement in Chemistry**

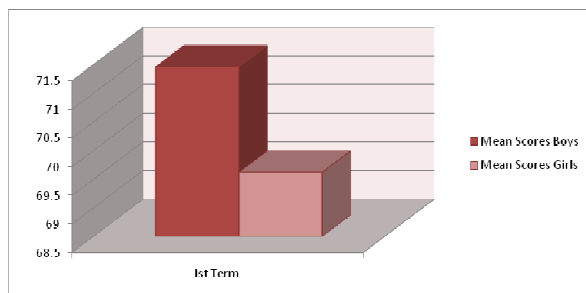
Terms	Group	N	Mean	S.D	't'
1	Boys	34	71.15	7.41	0.62
	Girls	36	70.17	8.96	

The calculated value for the difference in the mean scores of the Boys and the Girls in their Post-test scores is 0.62. This shows that there is no significant difference between

Boys and Girls when teaching through Multimedia. Due to students (Boys and Girls) common interest in Multimedia Multimedia Teaching provides a better understanding of chemistry to the students. Thus, teaching chemistry through Multimedia gives a fruitful result.

## Conclusion

Multimedia Teaching provides students a better understanding of subjects. Sound, Video, Image, animation and graphics were seen as significantly more useful additional interest for students. It increased the cognitive abilities of students. So that Boys and Girls have no significant difference in Achievement in chemistry through Multimedia Teaching. This gives us a common interesting method to teach the students to get equal attention in this Modern world.



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