



## A STUDY ON ACHIEVEMENT IN CHEMISTRY AT HIGHER SECONDARY STAGE

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**ABSTRACT** The present study compasses on achievement of students in studying Chemistry in higher secondary schools of Delhi NCR. The sample consists of 200 students of Government and private schools. "Chemistry Achievement Test" has been used for the study developed by Dr. Pramila Tanwar. The researcher used 2 sample t - test to analyse the data. Major finding of the study corroborates a significant difference between the Achievement test in chemistry among the students of government and private schools.

**KEYWORDS :** Chemistry, Higher secondary, Achievement test, Students t-test, 2 sample t-test

### INTRODUCTION

The standardized tests which are used to measure the level of developed skill or knowledge in students are called Achievement test. The test is administered in a planned way such as through training or by classroom instruction. Achievement tests help us to determine the level of instruction for which a student is prepared. If the achievement test score is high, it means the student has mastered the grade-level and is ready for advanced instructions. Low achievement test score indicates the need for repetition or remediation. All the educational effort has a concern to see the students achieve quality education.

**Mandila (1998)** corroborated that enriched academic programme helps in developing favourable attitude in students after conducting a study on "Attitude of secondary stage students towards science curriculum and its relationship with academic motivation"

**Onwukwe (2011)** opined that analogical thinking of science students is influenced by play stimulation technique which is influenced by the teachers and students cultural ambience.

### OBJECTIVES OF THE STUDY

1. To study the achievement in Chemistry of higher secondary school students in Delhi NCR
2. To determine the relationship of Hindi medium and English medium students in their Chemistry achievements.
3. To determine the difference between Urban and rural students in their achievement of chemistry

### HYPOTHESIS

**Ho1 :** There does not exist any significant difference between the students of English medium and Hindi medium in their achievement in Chemistry.

**Ho2:** There does not exist any significant difference between the students of Urban and rural schools in their achievement in Chemistry.

### METHODOLOGY

To conduct this study, Survey method has been applied

### Procedure for Sampling

The sample consisted of 100 higher secondary science students, out of which 50 students were from schools of urban locality and other 50 from rural locality. The investigator moved ahead with stratified random sampling method for this study.

### Techniques used

For data interpretation, 2 sample t test has been used. For this quantitative analysis of data, descriptive statistics and inferential statistics were used. The investigator may apply other techniques according to the need of the research.

### Tools used

To reach up to the objective of investigating student's achievement in Chemistry of higher secondary school, a questionnaire was developed in both English and Hindi.

### Scale description

The achievement test was developed according to the chemistry

syllabus. The Achievement test questions were class 10+ level which the students had already learnt.

### ANALYSIS AND INTERPRETATION

**Ho1 :** There does not exist any significant difference between the students of English medium and Hindi medium in their achievement in Chemistry.

**Table 1: t-values for English and Hindi medium students**

Sl.No	Group	N	M	SD	t	Remarks
1.	English medium students	50	7.8	3.37	2.14	Significant
2.	Hindi medium students	50	6.3	3.3		

Df= 98 P<0.05

From table 1 the null hypothesis can be rejected. A significant difference can be observed between the students of Hindi medium and English medium schools.

**Ho2:** There does not exist any significant difference between the students of Urban and rural schools in their achievement in Chemistry.

**Table 2: t-values for urban and rural students**

Sl.No	Group	N	M	SD	t	Remarks
1.	urban	50	5.6	2.98	2.10	Significant
2.	Rural	50	4.4	2.75		

Df= 98 P<0.05

From table 2 the null hypothesis can be rejected. A significant difference can be observed between the urban and the rural school students in their achievement in Chemistry.

### MAJOR FINDINGS OF THE STUDY

The findings of this study may be considered a further validation that the performance of students in Chemistry varied with respect to the locality and the medium of instruction. A significant difference can be observed between the urban and the rural school students in their achievement in Chemistry at 0.05 level of significance. The researcher also found out a significant difference between English and Hindi medium students in their achievement in chemistry at 0.05 level of significance.

### CONCLUSION

The findings of this study can be understood as the students interest in Science varies according to area and medium. This also depends on the difference in the lifestyle of people in rural and urban area and how much are they exposed to the latest inventions and technical development. The findings show that the rural students suffer disadvantage not because of their attendance in the school but because of lack of effective teaching methods in the classroom.

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