



# An Effect of Multimedia Package on Achievement in English Grammar of Students of Standard 11

ANJALI SOLANKI  
Research Scholar,  
GLS University, Ahmedabad.

DR. SONAL SEVAK  
Guide,  
GLS University, Ahmedabad.

## 1. Introduction

We are now in the era of hi-tech multimedia technologies which plays an important key role in every part of life. Not only in entertainment business but also in education advanced multimedia technologies like mouse interactive, virtual reality and augmented reality are very useful. Today the use of computers, tablets, phones, projectors has become so extensive that it becomes impossible to imagine a world that existed without all these gadgets. In such a scenario you would certainly expect the teaching and learning process to have progressed beyond the chalk and talk method. The combination of the advances in hardware and software has resulted in enhanced learning facilities. Now one can sit in a classroom or in front of a computer and see images, animations, videos and graphics presented on a screen with music or sounds or can even interact with others in a virtual setting. This is multimedia learning which is developed on the premise that students can learn more deeply from well-designed multi-media materials than from traditional modes of communication. In this unit we will look at the meaning, types, tools and advantages of multimedia in education and see how this has made learning interesting and more meaningful.

In present study, the researcher had studied the effect of multimedia package on achievement in English Grammar of students of standard 11 of Ahmedabad city.

## 2. Objectives

The objectives of present study are as follows.

1. To study the effect of multimedia package on achievement in English Grammar of students of standard 11 of Ahmedabad city.
2. To study the effect of multimedia package on achievement in English Grammar of students of standard 11 of Ahmedabad city in context of gender.
3. To study the effect of multimedia package on achievement in English Grammar of students of standard 11 of Ahmedabad city in context of scholastic achievement.

## 3. Hypotheses

- Ho<sub>1</sub> There is no significant difference between mean scores of post test of students of experimental group and controlled group.
- Ho<sub>2</sub> There is no significant difference between mean scores of post test of boys of experimental group and controlled group.
- Ho<sub>3</sub> There is no significant difference between mean scores of post test of girls of experimental group and controlled group.
- Ho<sub>4</sub> There is no significant difference between mean scores of post test of students having higher educational achievement of experimental group and controlled group.
- Ho<sub>5</sub> There is no significant difference between mean scores of post test of students having lower achievement of experimental group and controlled group.

Ho<sub>6</sub> There is no significant difference between mean scores of post test of boys and girls of experimental group and controlled group.

#### 4. Variables of the study

##### 1. Independent variables

##### A. Group

- Experimental
- Controlled

##### B. Gender

- Boys
- Girls

##### C. Educational achievement

- High
- Low

##### 2. Dependent variable

Scores of post test

#### 5. Research method

The researcher had to study the effectiveness of multimedia package on achievement in English Grammar of students of standard 11. The researcher had chosen experimental method and equivalent group post test design to perform this study.

#### 6. Sample of the study

The researcher had chosen Bhavna Higher Secondary School to perform this study. 70 students of this school out of which 35 were in experimental group and 35 in controlled group was sample of this study. In each group, there were 19 boys and 16 girls.

#### 7. Research tool

The present study has two different types of tools: 1) Teaching tool and 2) Data collection tool. As a teaching tool, the researcher had constructed a multimedia package for teaching of English Grammar of students of standard 11. For data collection tool, the researcher had prepared a test of 50 marks.

#### 8. Data analysis

Ho<sub>1</sub> There is no significant difference between mean scores of post test of students of experimental group and controlled group

**Table 1: Mean, SD, SED and 't'-value of students of experimental group and controlled group**

Group	N	Mean	SD	SED	t	Significance
Exp	35	39.49	5.19	1.56	4.21	0.01
Cont	35	32.91	7.65			

df	0.05	0.01
68	2.00	2.65

From above table it is seen that for df=68, table t values are 2.00 and 2.65 respectively. The calculated t value is 4.21. Therefore, calculated t value is more than table t value at both the levels and hypothesis is rejected. Moreover, mean score of students of experimental group is more than that of students of controlled group. Therefore, it is revealed that teaching through multimedia package is more effective than traditional teaching method.

Ho<sub>2</sub> There is no significant difference between mean scores of post test of boys of experimental group and controlled group.

**Table 2: Mean, SD, SED and 't'-value of boys of experimental group and controlled group of Bhavna Higher Secondary School**

Boys	N	Mean	SD	SED	t	Significance
Exp	19	39.26	5.15	2.43	3.04	0.01
Cont	19	31.89	9.24			

df	0.05	0.01
36	2.03	2.72

From above table it is seen that for df=36, table t values are 2.03 and 2.72 respectively. The calculated t value is 3.04. Therefore, calculated t value is more than table t value at both the levels and hypothesis is rejected. Moreover, mean score of boys of experimental group is more than that of boys of controlled group. Therefore, it is revealed that teaching through multimedia package is more effective than traditional teaching method.

**Ho<sub>3</sub> There is no significant difference between mean scores of post test of girls of experimental group and controlled group.**

**Table 3: Mean, SD, SED and 't'-value of girls of experimental group and controlled group**

Girls	N	Mean	SD	SED	t	Significance
Exp	16	39.75	5.39	1.88	3.00	0.01
Cont	16	34.13	5.23			

df	0.05	0.01
30	2.04	2.75

From above table it is seen that for df=30, table t values are 2.04 and 2.75 respectively. The calculated t value is 3.00. Therefore, calculated t value is more than table t value at both the levels and hypothesis is rejected. Moreover, mean score of girls of experimental group is more than that of girls of controlled group. Therefore, it is revealed that teaching through multimedia package is more effective than traditional teaching method.

**Ho<sub>4</sub> There is no significant difference between mean scores of post test of students having higher educational achievement of experimental group and controlled group.**

**Table 4: Mean, SD, SED and 't'-value of students having higher achievement of experimental group and controlled group**

Higher	N	Mean	SD	SED	t	Significance
Exp	18	43.00	3.73	2.43	3.24	0.01
Cont	18	35.11	9.62			

df	0.05	0.01
34	2.03	2.73

From above table it is seen that for df=34, table t values are 2.03 and 2.73 respectively. The calculated t value is 3.24. Therefore, calculated t value is more than table t value at both the levels and hypothesis is rejected. Moreover, mean score of students having higher achievement of experimental group is more than that of students having higher achievement of controlled group. Therefore, it is revealed that teaching through multimedia package is more effective than traditional teaching method.

**Ho<sub>5</sub> There is no significant difference between mean scores of post test of students having lower achievement of experimental group and controlled group**

**Table 5: Mean, SD, SED and 't'-value of students having lower achievement of experimental group and controlled group**

Lower	N	Mean	SD	SED	t	Significance
Exp	17	35.76	3.72	1.30	3.98	0.01
Cont	17	30.59	3.86			

df	0.05	0.01
32	2.04	2.74

From above table it is seen that for  $df=32$ , table t values are 2.04 and 2.74 respectively. The calculated t value is 3.98. Therefore, calculated t value is more than table t value at both the levels and hypothesis is rejected. Moreover, mean score of students having lower achievement of experimental group is more than that of students having lower achievement of controlled group. Therefore, it is revealed that teaching through multimedia package is more effective than traditional teaching method.

**Ho<sub>6</sub> There is no significant difference between mean scores of post test of boys and girls of experimental group.**

**Table 6: Mean, SD, SED and 't'-value of boys and girls of experimental group**

Exp	N	Mean	SD	SED	t	Significance
Boys	19	39.26	5.15	1.79	0.27	NS
Girls	19	39.75	5.39			

df	0.05	0.01
36	2.03	2.73

From above table it is seen that for  $df=36$ , table t values are 2.03 and 2.73 respectively. The calculated t value is 0.27. Therefore, calculated t value is more than table t value at both the levels and hypothesis is not rejected. Therefore, it is revealed that the effectiveness of computerized multimedia package is equal on boys and girls.

## 9. Findings

1. The computerized multimedia package is more effective than traditional teaching method on achievement in English Grammar of students of standard 11.
2. The computerized multimedia package is more effective than traditional teaching method on achievement in English Grammar of boys of standard 11.
3. The computerized multimedia package is more effective than traditional teaching method on achievement in English Grammar of girls of standard 11.
4. The computerized multimedia package is more effective than traditional teaching method on achievement in English Grammar of students having higher achievement of standard 11.
5. The computerized multimedia package is more effective than traditional teaching method on achievement in English Grammar of students having lower achievement of standard 11.
6. The computerized multimedia package is more effective than traditional teaching method on achievement in English Grammar of students of standard 11.

## 10. Conclusion

In modern era information technology is useful in every field. It is also useful in education. In present research, the researcher had studied the effectiveness of computerized multimedia package on achievement in English grammar of students of standard 11. The researcher had constructed high quality multimedia package. Present study was conducted in Bhavna Higher Secondary school of Ahmedabad city.

## References

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