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## **An experimental study of lecture method and demonstration method at different intellectual levels**

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### **Abstract**

With the advancement of educational psychology, it was proposed that education should be child-centred in which it was stressed:

"Education is for child, child is not for education". --Rousseau

Education very simply means providing profitable experiences, leaning is gaining through experiences. For efficient Learning education is necessary. Education has been conceived of as a training for better life and better social adjustment in a community or group. As such the task of education, on the one hand, is to affect the harmonious and all-round balanced development of the individual physically, mentally, and morally: on the other hand, to make him a socially useful citizen by modifying his behaviour to ensure proper social progress.

On the basis of present study, the investigator has observed that scores of students achieved in pre-test and post-test are showing that demonstration method is more effective than the traditional lecture method. Thus, students are performing better achievement in learning through teaching with demonstration method.

**Keywords:** Lecture method and demonstration method, educational psychology

### **Introduction**

Now the Education is considered as a social science. The object of the education is modification of behaviour of an individual for his own personal happiness, for his better adjustment in society and for making him a useful citizen, contributing something original to the society. It envisages social progress and development of society. In ancient times education chiefly served the purpose of self-actualization and the pattern of education was idealistic.

### **G.H. Thomson defines Education as**

"The effect of the environment upon the individual, producing changes in his habits of thought and behaviour,"

Education is the effective adaptation of an individual to the physical and social environment. Pestalozzi looked at education as a potent force which brings about harmonious, well-balanced and integrated development of the personality of the child, Education is a process of growth, unfoldment and development. It is a progress both for the individual and the society. For the individual it entails effective adaptation to the changing environment.

Education is the phase of the social process which is fostered by Society for the purpose of preparing its members for life in the group. Nunn, and educationists, says that education is the complete development of individuality. So that one can make an original contribution to life accordingly to one's best capacity. According to Plato, education refers to the training given to socially accepted habits, virtues and instincts of children. In this way, education is always a conscious process and the teacher thinks before he begins teaching. Education is the mature wisdom of the teacher with which he is able to influence cover the immature wisdom of child. The teacher provides opportunities to the child to exercise its intellect, aesthetic sense and other innate powers to experience things. (Toppo, S.)

In ancient times, the education was totally teacher-centred. Different schools of philosophy emerged which justify their own methods of teaching. The idealistic emphasized that teaching was initially and impact of the personality of the teacher on child. They therefore, emphasized discussion method. (Socrates).

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For pragmatists (Dewey) believed that teaching was possible only in a social environment and they stressed on project and problem-solving methods of teaching in which the peoples were engaged in a useful activity of their own choice and interest. The naturalists emphasised child-centred education and accordingly they advocated proper motivation and effective use of illustrative aids to grasp the content.

### Objectives of the study

1. To find out the co-efficient of correlation between intelligence and academic achievements.
2. To find out the comparative effectiveness of either of the methods over the other at different intellectual levels.
3. to find out the comparative efficacy of demonstration method over lecture method in terms of knowledge, understanding, application and skill components.

### Hypotheses

The following hypothesis were taken for this study-

#### 1. Conceptual Hypothesis

The subjects taught through lecture and demonstration methods may lead to differ in their intellectual levels.

#### 2. Statistical Hypothesis

The following null hypothesis were formulated to test the level of significance: -

- (i) There is no significant difference in mean achievement scores of
- (ii) the subjects of control group obtained on pre-test and post-test.
- (iii) There is no significant differences in mean achievement scores of the subjects of experimental group obtained on pre-test and post-test.
- (iv) There is no significant difference in mean achievement scores of the subjects of control group and experimental group obtained on post- test.
- (v) There is no significant difference in mean achievement scores of the subjects taught through lecture and demonstration methods at different intellectual levels.
- (vi) There is no significant difference in mean achievement scores of the subjects of control and experimental groups on post- test: -
  - a) in terms of knowledge,
  - b) in terms of understanding
  - c) in terms of application,
  - d) in terms of skill.

### Research Procedure

#### The Sample

The present study was conducted on a random sample of 24 subjects of 7<sup>th</sup> standard belonging to Saraswati Vidya Mandir, Tehri-Garhwal (Uttarakhand), Session 2018-19. These 24 subjects of class 7<sup>th</sup> were divided into two matched groups 'A' and 'B' on the basis of A General Mental Ability Test (I.Q. Test), constructed and standardized by Jalota.

Group A was taught through Lecture method and group B through Demonstration method which were termed as the control group and the experimental group respectively. A common unit was taught to both the groups of students for a fixed period of time. The other factors (time, content) were kept constant except the methods of teaching. Experimental method was applied to conduct the present investigation.

### Analysis and interpretation of data

In this section, the investigator has made an attempt to analyse the data systematically with the help of suitable statistical tools and techniques. The achievements of two groups (i.e) group 'A' and group 'B' on a teacher made test were analysed and interpreted by applying 't'-test in order to identify the comparative efficacy of group 'A' and 'B' taking at a time. The results were interpreted systematically and logically, for which 't'-test was applied, in order to arrive at necessary conclusions and generalizations.

**Table 1:** Mean, S.D. and 't' of correlated means of group 'A' on Pre- test and Post-Test.

Groups and Obtained Values	Pre-Test	Control Group 'A'	Post - Test
Means	31.42		36.67
S.D.	11.75		11.23
Difference between Means		5.25	
R		0.73	
S ED		2.55	
't'		2.058	
df		11	
Required 't' at 0.10 Level (One-Tailed Test)	=1.363		
Required 't' at 0.05 level	=1.796		
Required 't' at 0.01 level	= 2.718		
Significant or not Significant	= Significant at 0.05 Level.		

Required correlation coefficient at 0.005 Level = 0.684

#### Table- I

It is evident from table-I that the mean achievement scores of control group 'A' were obtained 31.42 and 36.67 respectively on pre-test and post-test. The corresponding S. D. values we found to be 11.75 and 11.23 respectively. A mean difference of 5.25 was observed in favour of post-test. The obtained 't' - value exceeded the required 't' - value at 0.05 level of significance. Hence, null hypothesis was rejected and it was interpreted that there was significant difference in mean achievement scores of the subjects of group 'A' in favour of post-test. The correlation coefficient between pre-test and post-test scores was found to be 0.73 which was marked significant at 0.05 level of significance. Hence, it was concluded that the pre-test post-test scores in the control group correlated significantly.

It was therefore, concluded that the subjects gained significantly better on post-test than the subjects did on pre-test in the control group.

**Table 2:** Mean, S.D. and 't' of correlated means of group 'B' on Pre- test and Post-Test.

Groups and Obtained Values	Experimental Group 'B'	
	Pre- Test	Post -Test
Means	32.75	40.58
S.D.	7.12	9.21
Difference between Means		7.83
R		0.39
S ED		2.77
't'		2.826
df		11
Required 't' at 0.10 Level (One-Tailed Test)	=1.363	
Required 't' at 0.05 level	=1.796	
Required 't' at 0.01 level	= 2.718	
Significant or not Significant	= Significant at 0.01 Level.	

Required correlation coefficient at 0.005 Level = 0.476

**Table-II**

Table-II shows that the mean achievement scores of the subjects of experimental group 'B' were to be 32.75 and 40.58 respectively, indicating a mean difference of 7.83 in favour of post-test. The corresponding S.D. values of the experimental group 'B' were obtained 7.12 and 9.21 respectively on pre-test and post-test. The obtained 't'-value was found to be greater than the required value at 0.01 level of significance. Hence, null hypothesis was rejected and it was concluded that there was significant difference in mean achievement scores of the subjects of the experimental group 'B' in favour of post-test. The correlation coefficient between pre-test and post-test scores was obtained 0.39 which was not found to be significant at 0.05 level of significance. Hence, it was concluded that pre-test and post-test scores of the subjects of the experimental group 'B' did not correlate significantly. However, it was concluded from the above interpretation that the subjects on post-test (taught through demonstration method) acquired significantly better achievement scores than gained the subjects on pre-test in the experimental group.

**Table 3:** Mean, S.D. and 't' of control group and experimental group on post-Test.

Groups and Obtained Values	Control Group 'A'	Experimental Group 'B'
	Pre- Test	Post -Test
Means	36.67	40.58
S.D.	11.23	9.21
Difference between Means		3.91
S ED		4.19
't'		0.933
df		22
Required 't' at 0.10 Level (One-Tailed Test)	=1.717	
Required 't' at 0.05 level	=2.074	
Required 't' at 0.01 level	= 2.819	
Significant or not Significant	= Not Significant at 0.10 Level.	

Table-III represents that the mean achievement scores for the control and the experimental groups were found to be 36.07 and 40.58 taught through lecture and demonstration methods respectively. Their corresponding S.D. values were obtained 11.23 and 9.21 respectively for groups 'A' & 'B'. The obtained 't' - value could not reach the required 't' - value even at 0.10 level of significance. Hence, null hypothesis was not rejected and it was inferred that there was no significant difference in mean achievement scores of the subjects taught through lecture and demonstration methods. A mean difference of 3.91 in favour of experimental group could simply indicate a trend of improvement from lecture method to demonstration method in favour of the latter.

The subjects having I.Q. 120 and above were termed Superior and the corresponding groups were termed as A<sub>1</sub> and B<sub>1</sub> as per control and experimental groups. Likewise, the subjects with their I.Q. 110 - 119 were known as High Average and the corresponding groups were termed as A<sub>2</sub> and B<sub>2</sub>. The individuals with their I.Q. 109 and below were termed as Average and the corresponding groups were termed as A<sub>3</sub> and B<sub>3</sub> for the present investigation.

S. No.	Sub-Groups	I.Q.	Quality
1.	A1 B	120 to above	Superior
2.	A2 B2	1100 to 119	High Average
3.	A3 B3	109 to below	Average

**Table 4:** Mean, S.D. and 't' of correlated means of group of superior Subjects of group 'A' on Pre- test and Post-Test.

Sub-Groups and Obtained Values	Experimental Group 'A'	
	Pre- Test	Post -Test
Means	38.00	46.25
S.D.	3.08	3.34
Difference between Means		8.25
R		0.77
S ED		1.24
't'		6.65
df		3
Required 't' at 0.10 Level (One-Tailed Test)	=1.638	
Required 't' at 0.05 level	=2.353	
Required 't' at 0.01 level	= 4.541	
Significant or not Significant	Significant at 0.01 Level.	
Required correlation coefficient at 0.95 Level = 0.805		

**Table-IV**

It is evident from table-IV that the mean achievement scores of the Superior subjects or group were obtained 38.00 and 46.25 on pre-test and post-test respectively. Their corresponding S.D. values were found to be 3.08 and 3.34 respectively. The obtained 't'-value was found to be much greater than the required value at 0.01 level of significance. Hence, null hypothesis was rejected and it was inferred that there was significant difference in the achievement scores of group 'A' obtained on pre-test and post-test in favour of post-test. The obtained correlation coefficient could not reach the required value at 0.05 level of significance. Hence, it was concluded that the pre-test and post-test scores of the Superior subjects of group 'A' did not correlate significantly. It was therefore, inferred that the superior subjects of group 'A' required better learning on post-test than did the subjects on pre-test.

**Table 5:** Mean, S.D. and 't' of correlated means of group of superior Subjects of group 'A' on Pre- test and Post-Test.

Sub-Groups and Obtained Values	Experimental Group 'A'	
	Pre- Test	Post -Test
Means	27.50	29.00
S.D.	9.39	10.27
Difference between Means		1.50
R		0.95
S ED		0.98
't'		1.53
df		3
Required 't' at 0.10 Level (One-Tailed Test)	1.638	
Required 't' at 0.05 level	2.353	
Required 't' at 0.01 level	4.541	
Significant or not Significant	Not Significant even at 0.10 Level.	

Required correlation coefficient at 0.05 Level = 0.805

**Table-V**

From table-V it was observed that the mean achievement scores of the High Average subjects were found to be 27.50 & 29.00 respectively. The corresponding S.D. values were obtained 9.39 and 10.27 for pre-test and post-test respectively. The obtained 't'-value could not reach the required value even at 0.10 level of significance. Hence, null hypothesis was not rejected. It was therefore, interpreted that there was no significant difference in mean achievement scores of the High Average subjects of control group 'A' obtained on pre-test and post-test. The obtained correlation coefficient 0.95 was found to be significant at 0.05 level of significance.

Hence, it was inferred that their pre-test and post-test scores of the High Average subjects of the control group correlated significantly.

The conclusion was that a mean difference of 1.50 in favour of post-test of the High Average subjects of group 'A' simply reflected a trend of improvement in favour of post-test.

**Table 6:** Mean, S.D. and 't' of correlated means of Average Subjects of group 'A' on Pre- test and Post-Test.

Sub-Groups and Obtained Values	Experimental Group 'A'	
	Pre- Test	Post -Test
Means	33.75	34.75
S.D.	9.75	8.69
Difference between Means		1.00
R		0.75
S ED		1.98
't'		0.509
df		3
Required 't' at 0.10 Level (One-Tailed Test)	1.638	
Required 't' at 0.05 level	2.353	
Required 't' at 0.01 level	4.541	
Significant or not Significant	Not Significant even at 0.10 Level.	

Required correlation coefficient at 0.05 Level = 0.805

**Table- VI**

It is evident from table-VI that the mean achievement scores of the Average subjects of group 'A' were obtained 33.75 and 34.75 on pre-test and post-test respectively. Their corresponding S.D. values were found to be 9.75 and 8.69 respectively. A mean difference of 1.00 was observed in favour of post-test. The obtained 't'-value was not found to be significant at 0.05 level of significance. Hence, null hypothesis was not rejected and it was interpreted that there was no significant difference in mean achievement scores of Average subjects of group 'A'. The obtained correlation coefficient could not reach the required value at 0.05 level of significance.

Hence, the pre-test and post-test of the average subjects of group 'A' did not correlate significantly.

It was further concluded that the subjects appeared to gain apparently better mean achievement scores on post-test than did the subjects on pre-test in control group 'A'.

**Table 7:** Mean, S.D. and 't' of correlated means of group of superior Subjects of group 'B' on Pre- test and Post-Test

Sub-Groups and Obtained Values	Experimental Group 'A'	
	Pre- Test	Post -Test
Means	34.00	37.80
S.D.	7.94	10.62
Difference between Means		3.80
R		0.28
S ED		5.06
't'		0.67
df		4
Required 't' at 0.10 Level (One-Tailed Test)	1.533	
Required 't' at 0.05 level	2.132	
Required 't' at 0.01 level	3.747	
Significant or not Significant	Not Significant even at 0.10 Level.	

Required correlation coefficient at 0.05 Level = 0.729

**Table-VII**

Table-VII represents that the mean achievement scores of the Superior subjects of group "B' on pre-test and Post-test were found to be 34.00 and 37.80 respectively. Their corresponding S.D. values were obtained 7.94 and 10.62 respectively. The obtained 't'-value could not reach the

required value even at 0.10 level of significance.

Hence, null hypothesis wasn't rejected and it was inferred that there was no significant difference in mean achievement scores of the Superior subjects of group on pre-test and post-test.

The obtained correlation coefficient 0.28 could not reach the required value at 0.05 level of significance. Hence, it was concluded that the pre-test and post-test scores of the Superior subjects of group 'B' did not correlate significantly. It was therefore, concluded that the Superior subjects of the experimental group appeared to acquire better learning in post-test than gained the subjects on pre-test.

**Table 8:** Mean, S.D. and 't' of correlated means of High Average Subjects of group 'B' on Pre- test and Post-Test.

Sub-Groups and Obtained Values	Experimental Group 'B'	
	Pre- Test	Post -Test
Means	31.25	43.00
S.D.	8.78	7.00
Difference between Means		11.75
R		0.73
S ED		3.16
't'		3.718
df		3
Required 't' at 0.10 Level (One-Tailed Test)	1.638	
Required 't' at 0.05 level	2.353	
Required 't' at 0.01 level	4.541	
Significant or not Significant	Significant at 0.05Level.	

Required correlation coefficient at 0.05 Level = 0.805

**TABLE-VIII**

It is evident from table-VIII that the mean achievement scores of experimental group 'B' were obtained 31.25 and 43.00 on pre-test and post-test respectively. Their corresponding S.D. values were found to be 8.78 und 7.00 respectively. A mean difference of 11.75 was observed in favour of post-test. The obtained 't' value of 3.718 exceeded the required value at 0.05 level significance. Hence, null hypothesis was rejected and it was interpreted that there was significant difference in mean achievement scores of the High Average subjects of group 'B' in favour of post-test. The correlation coefficient was obtained 0.73 which could not reach the required value at 0.05 level of significance.

Hence, it was concluded that the pre-test and post-test scores of the High Average subjects of group 'B' did not correlate significantly.

However, it was further inferred that the High Average subjects of group 'B' acquired better Learning on post-test than did the subjects on pre-test in the experimental group.

**Table 9:** Mean, S.D. and 't' of correlated means of Average Subjects of group 'B' on Pre- test and Post-Test.

Sub-Groups and Obtained Values	Experimental Group 'B'	
	Pre- Test	Post -Test
Means	32.66	42.33
S.D.	4.49	7.92
Difference between Means		9.67
R		0.26
S ED		5.44
't'		1.77
df		2
Required 't' at 0.10 Level (One-Tailed Test)	1.886	
Required 't' at 0.05 level	2.920	
Required 't' at 0.01 level	6.965	
Significant or not Significant	Not Significant even at 0.10 Level.	
Required correlation coefficient at 0.05 Level = 0.900		

**Table-IX**

Table-IX represents that the mean achievements scores of the average subjects of Group 'B' were found to be 32.66 and 42.33 respectively. Their corresponding S.D. values were obtained to be 4.49 and 7.92 respectively. The obtained 't'- value of 1.77 could not reach the required value at 0.20 level of significance. Hence, null hypothesis was not rejected and it was inferred that there was no significant difference in mean achievement scores of the average subjects of Group 'B' on pre-test and post-test. The correlation coefficient of Average subjects of Group 'B' between pre-test and post-test was obtained 0.26 which was not found to be significant at 0.05 level of significance. Hence, it was interpreted that the pre-test and post-test scores of the average subjects of group 'B' did not correlate significantly.

It was therefore, concluded from the above interpretation that the average subjects of group 'B' appeared to acquire apparently better learning on post-test than did the subjects on pre-test in the experimental group.

**Table 10:** Mean, S.D. and 't' of the superior Subjects in the control and experimental of group Post-Test

Groups and Obtained Values	Experimental Group	
	Pre- Test	Post - Test
Means	46.25	37.80
S.D.	3.34	10.62
Difference between Means		8.45
S ED		6.25
't'		1.349
df		7
Required 't' at 0.10 Level (One-Tailed Test)	=1.895	
Required 't' at 0.05 level	=2.365	
Required 't' at 0.01 level	=3.499	
Significant or not Significant	Not Significant even at 0.10 Level.	

**Table-X**

Table-X shows that the mean achievement scores of the superior subjects in control and experimental groups on posts-test were found to be 46.25 and 37.80 respectively. There corresponding S.D. values were found to be 3.34 and 10.62 respectively. A mean difference of 8.45 was observed favour of control group. The obtained 't' value was less than the required value even at 0.10 level of significance. Hence, null hypothesis was retained and it was interpreted that there was no significant difference between the mean achievement scores of the subjects taught through lecture and demonstration methods.

Thus, the conclusion was that the Superior subjects appeared to gain apparently better achievement scores in the control group a post-test than acquired the Superior subjects in the Experimental group on post-test.

**Table-11:** Mean, S.D. and 't' of the superior Subjects in the control and experimental of group Post-Test.

Groups and Obtained Values	Experimental Group	
	Pre- Test	Post -Test
Means	29.00	43.00
S.D.	10.27	7.00
Difference between Means		14.00
S ED		7.17
't'		1.952
Df		6
Required 't' at 0.10 Level (One-Tailed Test)	1.943	
Required 't' at 0.05 level	2.447	
Required 't' at 0.01 level	3.707	
Significant or not Significant	Only Significant at 0.10 Level.	

**Table-XI**

Table-XI represents that the mean achievement scores of the High Average subjects were obtained 29.00 and 43.00 on post-test taught through lecture and demonstration methods respectively. Their corresponding S.D. values were to be 10.27 and 7.00 respectively. A mean difference of 14.00 was observed in favour of experimental group taught through the demonstration method. The obtained 't' was found to be significant only at 0.10 level of significance but not o 0,05 level of significance.

Hence, null hypothesis was rejected at 0.10 level of significance only.

It was therefore, concluded that there was significant difference between mean achievement scores of the High Average subjects on post-test in favour of demonstration method.

**Table 12:** Mean, S.D. and 't' of the Average Subjects in the control and experimental of group Post-Test.

Groups and Obtained Values	Experimental Group	
	Pre- Test	Post -Test
Means	34.75	42.33
S.D.	8.69	7.92
Difference between Means		7.58
S ED		7.56
't'		1.002
df		5
Required 't' at 0.10 Level (One-Tailed Test)	2.015	
Required 't' at 0.05 level	2.571	
Required 't' at 0.01 level	4.032	
Significant or not Significant	Not Significant even at 0.10 Level.	

**Table-XII**

Table-XII shows that the mean achievement scores of the Average subject was obtained 34.74 and 42.33 on post-test taught through lecture and demonstration methods respectively. Their corresponding S.D. values were found to be 8.69 and 7.92 respectively. A mean difference of 7.50 was observed in favour of the experimental group. The obtained value could not reach the required value even at 0.10 level of the significance. Hence, null hypothesis was retained and it was interpreted that there was no significant difference between mean achievement scores of the average subjects through lecture and demonstration methods.

Thus, the apparent mean difference in favour of the experimental group 'B' could simply reflect a trend of betterment in favour of demonstration method.

**Table 13:** Mean, S.D. and 't' of control and experimental of group Post-Test for Knowledge Component.

Groups and Obtained Values	Experimental Group (Demonstration Method)	
	Pre- Test	Post -Test
Means	10.58	10.92
S.D.	2.64	2.61
Difference between Means		0.34
S ED		1.07
't'		0.318
df		22
Required 't' at 0.10 Level (One-Tailed Test)	1.717	
Required 't' at 0.05 level	2.074	
Required 't' at 0.01 level	2.819	
Significant or not Significant	Not Significant even at 0.10 Level.	

**Table-XIII**

From table-XIV the mean achievement scores of the subjects in control and experimental groups on post-test were obtained for "Knowledge" component 10.58 and 10.92

respectively. Their corresponding S.D. values were found to be 2.64 and 2.61 respectively.

The obtained 't'-value could not reach the required value even at 0.10 level of significance. Hence, null hypothesis was not rejected at 0.10 level. It was therefore, interpreted that there was no significant difference in mean achievement scores obtained for "Knowledge" component between the control and experimental groups on post-test.

However, a mean difference of 0.34 in favour of experimental group could simply indicate that the subjects in the experimental group gained slightly better achievement scores in case of 'Knowledge' component than did the subjects in control group on post-test.

### Research Findings

The investigator, after analysis, interpretation and discussion on the results arrived at the following:

### Conclusions

1. There was significant difference in mean achievement scores of the control group 'A' (Lecture Method) obtained on pre-test and post-test at 0.05 level in favour of post-test.
2. There was significant difference in mean achievement scores of the experimental group 'B' (Demonstration Method) obtained on pre-test and post-test respectively at 0.01 level in favour of post-test.
3. No significant difference was observed in mean achievement scores obtained on post-test between the control group 'A' and experimental group 'B' even at 0.10 level of significance taught through lecture and demonstration methods respectively.
4. A significant difference was observed in mean achievement scores of the superior subjects of the control group 'A' obtained on pre-test and post-test respectively in favour of post-test at 0.01 level.
5. There was no significant difference in mean achievement scores of the high average subjects of control group 'A' obtained on pre-test and post-test even at 0.10 level of significance. Although a mean difference of 1.50 indicated a trend of improvement in favour of post-test.
6. No significant difference was marked in mean achievement scores of the average subjects of the control group 'A' on pre-test and post-test even at 0.10 level of significance. However, a mean difference of 1.00 could simply reflect a trend of betterment in favour of post-test.
7. No significant difference was found in mean achievement scores of the superior subjects of group 'B' (Experimental Group) on pre-test and post-test even at 0.10 level of significant. Although a mean difference of 3.80 was observed in favour of post-test.
8. There was significant difference in mean achievement scores of the high average subjects of the experimental group 'B' on pre-test and post-test at 0.05 level in favour of post-test indicating the effectiveness of demonstration method for the high average subjects.
9. No significant difference was observed in mean achievement scores of the average subjects of the experimental group 'B' on pre-test and post-test respectively even at 0.10 level of significance. Although a mean difference of 9.67 between pre-test and post-test scores of the Average subjects of the

experimental group appeared to show a trend of improvement in favour of demonstration method.

10. There was no significant difference between the achievement scores of the Superior subjects in control and the experimental groups respectively, obtained on post-test even at 0.10 level of significance. In this case, a trend of improvement was reflected in favour of control group for the Superior subjects.
11. There was significant difference in mean achievement scores of the high average subjects of the control and the experimental groups respectively, obtained on post-test at 0.10 level of significance in favour of the experimental group (i.e. taught through demonstration method).
12. No significant difference was reflected between the mean achievement scores of the average subjects in control and the experimental groups respectively on post-test even at 0.10 level of significance. However, a mean difference of 7.58 in favour of experimental group appeared to show a trend of effectiveness in favour of the demonstration method for the Average subjects.
13. No significant difference was reflected between the mean achievement scores of the control and the experimental groups obtained for the objective's knowledge, understanding, application and skill respectively even at 0.10 level of significance. However, the increased achievement scores obtained for knowledge, understanding, application and skill in favour of demonstration method appeared to indicate a trend of effectiveness of demonstration method than the traditional lecture method.

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