

## Effectiveness of Situated Learning Method on Achievement in English at Primary Level Students of Kerala, India

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**Abstract:** *The present study aimed to find out the effectiveness of Situated Learning Method on achievement in English at primary level. Situated Learning Method essentially is a matter of creating meaning from the real activities of daily living. Situated Learning Method involves students in cooperative activities where they are challenged to use their critical thinking and kinaesthetic abilities. The study is carried out on comparing Situated Learning Method with the Prevailing Activity Oriented Method. Instructional strategies like knowledge, understanding and application are also analysed. The result of the study reveals that Situated Learning Method is more effective than Prevailing Activity Oriented Method on achievement in English of students at Primary level.*

**Keywords:** *Situated Learning Method, Achievement, Primary level*

### Introduction

Languages are central to education. In our pluralistic society, use and development of languages in the Educational context is riddled with complexities. With the spread and development of English around the world, English is used as a second language in a country like India. At present the role and status of English in India is higher than ever as evidenced by its position as a key subject of medium of instruction. As the number of English learners is increasing, different teaching methods have been implemented to test the effectiveness of the learning process.

Speech does not exist in a vacuum. When the teacher speaks English in the classroom, he relates it to some objects around, pictures, incidents or actions. Later he relates language to action chains, stories or events of daily life. Thus we know that language exists in a whole range of situations in which the meanings of words very clear. Language is thus linked to situations. To increase the Effectiveness of English one of such methods is the Situated Learning Method. This helps the students to engage in the learning through situations. It has been tested effectively and is widely accepted for teaching English in Modern world.

Situated Learning Method can be used in a class room as a learning technique in which students learn through help and guidance of a teacher or expert. This guided participation helps

the student achieve a task that independently would be too hard or complicated. It puts the control over learning in the hands of the student and out of the teacher. By doing this, it improves the student's development of cognitive management skills such as goal setting, strategic, planning, monitoring, evaluating and revising. These skills are all critical for effective learning.

Situated Learning is a term first proposed by Lave and Wenger as a model of learning in a community of practice in the early 1990s, and follows the work of Dewey, Vygotsky, and others<sup>2</sup>, who claim that students are more inclined to learn by actively participating in the learning experience. In Situated Learning Method, the student is an active learner, not or a passive one. Studies have shown that when students become passive learners they often take on a waiting out attitude to learning. They put little effort, attention or involvement in the learning process. Situated Learning Method essentially is a matter of creating meaning from the real activities of daily living. Situated Learning Method involves students in cooperative activities where they are challenged to use their critical thinking and kinaesthetic abilities.

### **Objectives of the study**

1. To compare the effectiveness through Situated Learning Method and Prevailing Activity Oriented Method on achievement in English of students at Primary Level.
2. To compare the effectiveness through Situated Learning Method on achievement in English at Primary Level with regard to the following categories of selected instructional objectives viz;
  - 1) Knowledge
  - 2) Understanding
  - 3) Application

### **Methodology**

The investigator selected Experimental Method for the study. The design adopted for the study was Non-Equivalent Pre-Test Post-Test design. This design is often used in class room experiments when experimental and control groups are such naturally assembled groups as intact classes which may be similar. One division was randomly selected as the Experimental Group and the other division as the Control Group. The Experimental Group was taught using Situated Learning Method while the Control Group was taught using the Prevailing Activity Oriented Method of Teaching.

### **Data analysis and interpretation**

Objective-wise analysis and interpretation is the main component of the experimentation. The data were analysed with the help of ANOVA and ANCOVA test techniques of statistics<sup>1</sup>.

### 1. Comparison of effectiveness of situated learning method with prevailing activity oriented method

The Pre-test and Post-test score of all Experimental and Control Group where subjected to analyze. Analysis of Co-Variance is used to determine the comparative study. The summary of analysis of variance of Pre-test (x) and Post-test (y) score taken respectively.

Table 1

Summary of ANOVA of Pre-test and Post-test scores on achievement in English of Experimental and Control Groups

Source of variation	df	SS <sub>X</sub>	SS <sub>Y</sub>	MS <sub>X</sub> (V <sub>X</sub> )	MS <sub>Y</sub> (V <sub>Y</sub> )	F <sub>x</sub> =	2.16
Among means	1.00	6.60	1014.60	6.60	1014.60	F <sub>y</sub> =	83.02
Within group	68.00	207.57	831.06	3.05	12.22		
Total	69.00	214.18	1845.66	-	-		

F<sub>x</sub> = 2.16

F<sub>y</sub> = 83.02

From the table 'F' for degree of freedom (1, 68)

F at 0.05 level= 3.98

F at 0.01 level=7.01

The obtained value of F<sub>x</sub> is 2.16. It is not significant at 0.05 level, where as F<sub>y</sub> 83.02 is significant at 0.01 level. It shows that there is no significant difference between pre-test scores of Experimental and Control Groups. F<sub>y</sub> value is significant at 0.05 levels and indicates that the group differs significantly in the Post-test scores.

The total sum of squares of adjusted mean square variance for post – test were computed. F – Ratio was calculated. The final Y scores were corrected for difference in critical X scores.

For that the SS<sub>y</sub> has been adjusted for any variability in Y, contributed by X. The adjusted sums of squares for Y (ss<sub>y</sub>) were computed and the F ratio- (F<sub>y.x</sub>) was calculated. The summary of ANCOVA of pre-test and post-test scores of students in Experimental and Control group is given in table 2.

Table 2

Summary of ANCOVA of pre-test and post-test scores of students in the Experimental and Control Groups

Source of variation	df	SS <sub>X</sub>	SS <sub>Y</sub>	S <sub>XY</sub>	SS <sub>Y.X</sub>	MS <sub>Y.X</sub> (V <sub>Y.X</sub> )	SD <sub>Y.X</sub>
Among means	1.00	6.60	1014.60	81.85	844.50	844.50	3.14

Within group	67.00	207.57	831.06	188.52	659.84	9.85	
<b>Total</b>	<b>68.00</b>	<b>214.18</b>	<b>1845.66</b>	<b>270.38</b>	<b>1504.34</b>	-	-
						Fy.x=	85.75

$$F_{y.x} = 85.75$$

From the table of F for degree of freedom, (1,67)

F at 0.05 level= 3.98                      F at 0.01 level=7.01

Since  $F_{yx}$  ratio is 85.75 is greater than the table value and it is significant statistically even at 0.01 level. The significant ratio for the adjusted Post-test scores shows that the final mean scores of students in the Experimental and Control Groups differ significantly after they were adjusted for the difference in Pre-Test scores. The significant F-ratio necessitates proceeding to test the difference separately by t-test. The data for adjusted Y mean of Post-test scores of pupil in Experimental and Control Groups are given in the following table 3.

Table 3

Data for Adjusted means of Post-test scores of students in Experimental and Control Groups

Groups	N	$M_X$	$M_Y$	$M_{Y.X}$
Experimental	35.00	4.96	16.8	16.56
Control	35.00	4.34	9.2	9.51
TOTAL	70.00	4.65	13.04	-

$$SEm=0.75; t= 9.41$$

The difference in adjusted means for Post-tests (Y) scores of Experimental and Control Group tested for the significance for df 67. The t value is obtained 9.41 is significant at 0.01 level. The significant difference between the adjusted Y mean (Post-test), indicate that the students of Experimental and Control Groups differ significantly in their achievement in the Post-test. So the mean of the Post-test scores of Experimental and Control Groups clearly shows that Experimental Group is superior in achievement in English of students taught through Situated Learning Method is better than those of students taught through Prevailing Activity Oriented method.

### 2.1. Comparison of effectiveness of situated learning method on achievement in English with the prevailing activity oriented method under the instructional objective: knowledge

Table 4

Summary of ANOVA of Pre-test and Post-test scores of Experimental and Control Groups-under the category of objective knowledge

Source of variation	df	SS <sub>X</sub>	SS <sub>Y</sub>	MS <sub>X</sub> (V <sub>X</sub> )	MS <sub>Y</sub> (V <sub>Y</sub> )	F <sub>X</sub> =	1.43
Among means	1.00	1.89	37.16	1.89	37.16	F <sub>Y</sub> =	31.70
Within group	68.00	89.97	79.71	1.32	1.17		
<b>Total</b>	69.00	91.86	116.87	-	-		

$$F_X = 1.43$$

$$F_Y = 31.70$$

From Table F for degree of freedom (1, 68)

F at 0.05 level = 3.98

F at 0.01 level = 7.01

The obtained value of  $F_X$  is 1.43. It is not significant at 0.05 level, where as  $F_Y$  31.70 is significant at 0.01 level. It shows that there is no significant difference between pre-test scores of Experimental and Control Groups.  $F_Y$  value is significant at 0.05 level and indicates that the group differ significantly in the Post-test scores.

The final y score were corrected for difference in critical (x) scores. For that  $SS_Y$  have been adjusted for any variability in Y contributed to x the adjusted sum of squares for y (i.e.  $SS_{Y.X}$ ) were computed and the ratio  $F_{Y.X}$  was calculated. The summary of ANCOVA is given in the following table 5.

Table 5

Summary of ANCOVA of Pre-test and Post-test scores under the objective knowledge in the Experimental and Control Groups

Source of variation	df	SS <sub>X</sub>	SS <sub>Y</sub>	S <sub>XY</sub>	SS <sub>Y.X</sub>	MS <sub>Y.X</sub> (V <sub>Y.X</sub> )	SD <sub>Y.X</sub>
Among means	1.00	1.89	37.16	-8.38	38.84	38.84	1.08
Within group	67.00	89.97	79.71	13.17	77.79	1.16	
<b>Total</b>	68.00	91.86	116.87	4.79	116.62	-	-
						<b>F<sub>Y.X</sub>=</b>	<b>33.45</b>

$$F_{Y.X} = 33.45$$

From the table of F for degree of freedom (1, 67)

F at 0.05 level = 3.98

F at 0.01 level = 7.01

The obtained  $F_{Y.X}$  was tested for significance. The table value of F- ratio for df (1, 67) is 7.01 at 0.01 level and 3.98 at 0.05 level. The obtained value of  $F_{Y.X}$  is 33.45 and it is significant at

0.01 level. From this it is clear that the Y means of experimental and Control Groups differ significantly at 0.05 level and 0.01 level, after they have adjusted for difference in the Pre-test scores under the instructional objective knowledge.

Table 5

Data for Adjusted means of Post-test scores of students in Experimental and Control Groups under the category of objective knowledge

Groups	N	$M_X$	$M_Y$	$M_{Y.X}$
Experimental	35.00	2.10	3.7	3.71
Control	35.00	2.43	2.2	2.20
Total	70.00	2.26	2.96	-

SEM between adjusted mean = 0.26                      Calculated t value = 5.84  
 From table of t for degrees of freedom 67      t at 0.05 level = 2.00  
 t at 0.01 level = 2.65

Adjusted Y means for the Post-test scores were tested for significance for df 67. The calculated 't' value is 5.84. The table value for df 67 is 2.00 at 0.05 level and 2.65 at 0.01 level. The value is significant even at 0.05 level. This means that the experimental and Control Groups differ significantly in their achievement.

Since the adjusted means score for the Experimental Group is superior to the Control Group, it may be concluded that the students who learned through Situated Learning Method class achieved better than who taught through Prevailing Activity Oriented Method under the category of objective knowledge.

**2.2. Comparison of effectiveness of situated learning method on achievement in English with the prevailing activity oriented method under the instructional objective: understanding**

Table 6

Summary of ANOVA of Pre-test and Post-test scores of Experimental and Control Groups-under the category of objective Understanding

Source of variation	df	$SS_X$	$SS_Y$	$MS_X(V_X)$	$MS_Y(V_Y)$	$F_X =$	<b>13.42</b>
Among means	1.00	7.56	154.51	7.56	154.51	$F_Y =$	40.72
Within Groups	68.00	38.29	258.06	0.56	3.79		
Total	69.00	45.84	412.57	-	-		

$F_X = 13.42$      $F_Y = 40.72$   
 From Table F for degree of freedom (1, 68)

F at 0.05 level = 3.98

F at 0.01 level = 7.01

The obtained value of  $F_x$  is 13.42. It is significant at 0.05 level, where as  $F_y$  40.72 is significant at 0.01 level. It shows that there exists significant difference between pre-test scores of Experimental and Control Groups.  $F_y$  value is significant at 0.05 level and indicates that the group differ significantly in the Post-test scores.

The final y score were corrected for difference in critical (x) scores. For that  $S_{SY}$  have been adjusted for any variability in Y contributed to x the adjusted sum of squares for y (i.e.  $S_{SY.X}$ ) were computed and the ratio  $F_{Y.X}$  was calculated. The summary of ANCOVA is given in the following table 6.

Table 6

Summary of ANCOVA of Pre-test and Post-test scores of students in the Experimental and Control Groups under the objective understanding

Source of variation	df	SS <sub>X</sub>	SS <sub>Y</sub>	S <sub>XY</sub>	SS <sub>Y.X</sub>	MS <sub>Y.X</sub> (V <sub>Y.X</sub> )	SD <sub>Y.X</sub>
Among means	1.00	7.56	154.51	34.17	89.07	89.07	1.88
Within Groups	67.00	38.29	258.06	29.29	235.64	3.52	
Total	68.00	45.84	412.57	63.46	324.71	-	-
						F <sub>y.x</sub> =	25.32

$F_{Y.X}=25.32$

From the table of F for degree of freedom (1, 67)

F at 0.05 level=3.98

F at 0.01 level=7.01

The obtained  $F_{Y.X}$  was tested for significance. The table value of F- ratio for df (1, 67) is 7.01 at 0.01 level and 3.98at 0.05 level. The obtained value of  $F_{Y.X}$  is 25.32 and it is significant at 0.01 level. From this it is clear that the Y means of experimental and Control Groups differ significantly at 0.05 level and 0.01 level, after they have adjusted for difference in the Pre-test scores under the category of objective Understanding.

### Comparison of Adjusted Y Means

The adjusted means of Post-test scores (Y means) of students in the Experimental and Control Groups under the category Understanding were computed. The differences between the adjusted y means were tested for significance. The data for adjusted means for Post-test scores of students in the Experimental and Control Group under the category Understanding are given in table 7.

Table 7

Data for Adjusted means of Post-test scores of students in Experimental and Control Groups under the category of objective Understanding

Groups	N	$M_X$	$M_Y$	$M_{Y.X}$
Experimental	35.00	1.10	6.3	6.09
Control	35.00	0.44	3.4	3.62
Total	70.00	0.77	4.86	-

$S_{EM}$  between adjusted mean = 0.45

Calculated t value = 5.51

From table of t for degrees of freedom 67 t at 0.05 level = 2.00

t at 0.01 level = 2.65

Adjusted Y means for the Post-test scores were tested for significance for df 67. The calculated 't' value is 5.51. The table value for df 67 is 2.00 at 0.05 level and 2.65 at 0.01 level. The value is significant even at 0.05 level. This means that the experimental and Control Groups differ significantly in their achievement.

Since the adjusted means score for the Experimental Group is superior to the Control Group, it may be concluded that the students who learned through Situated Learning Method class achieved better than who taught through Prevailing Activity Oriented Method under the category of objective Understanding.

### 2.3. Comparison of effectiveness of situated learning method on achievement in english with the prevailing activity oriented method under the categories of following objective: application

The scores obtained under the category 'Application' both in Experimental and Control Groups of the students were subjected to the statistical techniques ANCOVA.

Table 8

Summary of ANOVA of Pre-test and Post-test scores of Experimental and Control Groups-under the category of objective Application

Source of variation	df	$SS_X$	$SS_Y$	$MS_X (V_X)$	$MS_Y (V_Y)$	$F_x =$	1.18
Among means	1.00	1.73	168.18	1.73	168.18	$F_y =$	43.04



### Comparison of Adjusted Y Means

The adjusted means of Post-test scores (Y means) of students in the Experimental and Control Groups under the category Application were computed. The differences between the adjusted y means were tested for significance. The data for adjusted means for Post-test scores of students in the Experimental and Control Group under the category Application are given in table 10.

Table 10

Data for Adjusted means of Post-test scores of students in Experimental and Control Groups under the category of objective Application

Groups	N	$M_X$	$M_Y$	$M_{Y.X}$
Experimental	35.00	1.76	6.7	6.65
Control	35.00	1.44	3.6	3.68
Total	70.00	1.60	5.16	-

$S_{EM}$  between adjusted mean = 0.46

Calculated t value = 6.44

From table of t for degrees of freedom 67

t at 0.05 level = 2.00

t at 0.01 level = 2.65

Adjusted Y means for the Post-test scores were tested for significance for df 67. The calculated 't' value is 6.44. The table value for df 67 is 2.00 at 0.05 level and 2.65 at 0.01 level. The value is significant even at 0.05 level. This means that the experimental and Control Groups differ significantly in their achievement.

Since the adjusted means score for the Experimental Group is superior to the Control Group, it may be concluded that the students who learned through Situated Learning Method class achieved better than who taught through Prevailing Activity Oriented Method under the category of objective Application.

### Conclusion

The present study experienced the effectiveness of Situated Learning Method on achievement in English of students at primary level and it proved to be potentially effective. The study has shown that Situated Learning Method is more effective than Prevailing Activity Oriented Method of teaching on achievement in English at Primary level. The students should be

aware of necessity of Situated Learning Method. It is more effective in retaining the acquired knowledge for a long time than Prevailing Activity Oriented Method.

### References

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