

RESULTS AND DISCUSSION

This chapter is confined to the analysis and interpretation of data obtained from the school record, pre-test and through posttest. Previous achievement scores in the subject of English were obtained from the school record to equate the groups. Significance of difference between the mean scores of experimental and control groups of English medium and Urdu medium on pretest previous achievement scores and posttest were found out by applying t-test, analysis of variance and the Solomon four group design (analysis of variance).

The significance of difference between the mean scores of experimental group and control groups on previous achievement and pretest in English was found out by applying t-test.

Obtained results alongwith analysis and interpretation are presented in the following pages.

H₀ 1: There is no significance of difference between the mean scores of experimental and control groups on pre-test (English medium).

Table 1: Significance of difference between the mean scores of experimental and control groups on pre-test.

Group	N	df	M	SD	SE _D	t-value
Experimental	30	29	55.67	12.67	3.38	0.64*
Control	30	29	53.50	11.08		

*Not Significant

df=58

t-value at 0.05 level =2.04

Table 1 indicates that the mean scores of the pretest. in English of the experimental group (English medium) was 55.67 and that of the control group was 53.5. The difference between two means was not statistically significant at 0.05 level. Hence, the null hypothesis, “there is no significance of difference between the mean scores of experimental and control groups on pretest” was accepted and both the groups could be treated as equal on the variable of pretest in English.

These findings support the views of Arnold (1942) who found that learning occurs in conducive environment and suitable surroundings.

H₀ 2: There is no significance of difference between the mean scores of high achievers of the experimental and control groups on pretest (English medium).

Table 2: Significance of difference between the mean scores of high achievers of experimental and control groups on pretest.

Group	N	Df	M	SD	SE _D	t-value
High achievers of the experimental group	15	14	65.67	8.43	3.44	0.58*
High achievers of the control group	15	14	63.67	8.65		

*Not Significant df = 28 t value at 0.05 = 2.04

Table 2 reflects that there was no significance of difference between the mean scores of high achievers of experimental and control group on pretest. To obtained t value through calculation is 0.58 at 0.05 level, which is less than the, table value. Hence, the null hypothesis, “there is no significance of difference between high achievers of the both groups on pretest,” was accepted. So, the high achievers of the both groups could be treated as equal.

H₀ 3: There is no significance of difference between mean scores of low achievers of experimental and control groups on pretest (English medium).

Table 3: Significance of difference between the mean scores of low achievers of experimental and control groups on pretest.

Group	N	df	M	SD	SE _p	t- value
Low achievers of the experimental group	15	14	42.33	7.84	2.98	0.11*
Low achievers of the control group	15	14	42.67	4.21		

*Not Significant

df=28

t value at 0.05 = 2.14

Table 3 reflects that there was no significance of difference between the mean scores of low achievers of experimental and control group on pretest Hence, the null hypothesis, "there is no significance of difference between the low achievers of the both groups on pretest was accepted. The calculated t- value is 0.11, which is less than the table value and is insignificant at 0.05 level. Hence, the both groups could be treated as equal

H₀ 4: There is no significance of difference between mean scores of experimental and control groups on posttest (English medium).

Table 4: Significance of difference between the mean scores of experimental and control groups on post-test

Group	N	df	Mean	SD	SE _D	t-value
Experimental	30	29	79	3.29	3.25	7.48*
Control	30	29	54.67	3.32		

*Significant

df=58

t value at 0.05 =2.04

It appears from Table 4 that difference between the mean scores on the post-test of the experimental group was 79 and the same of the control group was 54.67. The difference between the two means was found significant at 0.05 level in favor of the experimental group. Hence, the null hypothesis, "there is no significance of difference between the mean scores of experimental and control groups on posttest," was rejected, in the light of the t-value obtained which is greater than the, table value at 0.05 level which is significant at 0.05 level. Hence, the null hypothesis was rejected. These findings support the results reported by Petty (1996) that students learn effectively by direct method if they are taught immediate requirements of it.

H₀ 5: There is no significance of difference between the mean scores of high achievers of experimental and control groups on post test (English medium).

Table 5: Significance of difference between the mean scores of high achievers of experimental and control groups on posttest.

Group	N	d f	Mean	SD	SE _D	t-value
High achievers of the experimental group	30	29	82.33	5.32	3.40	4.11*
High achievers of the control group	30	29	68.33	9.92		

*Significant

df=58

t value at 0.05 =

2.14

Table 5 shows that the difference between the mean scores of high achievers of experimental and control groups on post-test was statistically significant at a 0.05 level in favor of the experimental group. The calculated value is 4.11, which is less than table value at 0.05 level. Hence, the null hypothesis, "there is no significance of difference between the mean scores of experimental and control groups on posttest," was rejected. It supports the concept of Curran (1982) that word-to-word language learning hinders in fluency. So, the learners should avail a chance where they gallop hundreds of words accordingly.

H₀ 6: There is no significance of difference between the mean scores of low achievers of experimental and control groups on post-test (English medium).

Table 6: Significance of difference between the mean scores of low achievers of experimental and control groups on post-test.

Group	N	df	M	SD	SE _D	t-value
Low achievers of the experimental group	30	29	65	4.47	0.74	7.02*
Low achievers of the control group	30	29	45	3.05		

* Significant df=58 t value at 0.05 =2.04

Table 6 indicates that the difference between 7.02 the mean scores of low achievers of experimental group and control group on post-test was not statistically significant at 0.05 level. The calculated t- value at 0.05 level is 7.02, which is higher than table value at same level. Hence, the null hypothesis, "there is significance of difference between the mean scores of low achievers of both groups," was rejected. These results supports the concept of Collitzs (1926), which found students with low scores, had low interest in learning a foreign language.

H₀ 7: There is no significance of difference between the experimental and the control groups on interaction effect of treatment on the performance of high and low achievers on post-test (English medium).

Table 7: ANOVA (2x2) showing difference between treatment effects for high and low achievers of experimental and control groups on post-test.

Source of variance	Degree of freedom	Sum of squares	Mean square Variation	F value
Treatment	1	4113.250	4113.25	5.51*
Achievement level	1	6061.63	6061.63	8.2*
Interaction	1	32321.12	32321.12	52.03*
With in cells	57	42496.00	745.54	

*Significant

F value at 0.05 = 4.03

**Significant

***Significant

Table 7 indicates that the F-value obtained in case of "treatment" as a source of variation was significant at 0.05 level. The calculated F- value is greater than the table value, which is 4.03 at the same degree of freedom. In this way high achievers and low achievers of experimental groups significantly outscored as compared to the high and low achievers of the control group. Hence, the null hypothesis, "there is no significance of difference between the experimental and control groups on interaction effect of treatment on the performance of high and low achievers on posttest," was rejected.

H₀ 8: There is no significance of difference between the mean scores of experimental and control groups on retention test (English medium).

Table 8: Significance of difference between mean scores of the experimental and control groups on retention test.

Group	N	df	Mean	SD	SE _D	t- value
Experimental	30	29	56.83	13.93	3.73	3.57*
Control	30	29	54.67	12.48		

* Significant

df = 58

t value at 0.05 level = 2.14

Table 8 shows that the difference between the mean retention scores of the experimental group and that of the control group was found to be significant on retention test and that was in favor of experimental group. Hence, the null hypothesis that, "there is no significance of difference between the mean scores of experimental and control groups on retention test," was rejected. The subjects who were taught by direct method gained more and also retained more due to the intensity of direct teaching. These findings support the concepts of Krapp (1988) that direct teaching is time saving and durable activity.

H₀ 9: There is no significance of difference between the mean scores of experimental and control groups on the previous achievement test.(Urdu medium).

Table 9: Significance of difference between the mean scores of experimental and control groups on previous achievement test.

Group	N	df	Mean	SD	SE _D	t-value
Experimental	30	29	53.47	14.42	3.79	0.12*
Control	30	29	53	13.92		

*Not Significant

df = 58

t value at 0.05= 2.04

Table 9 reflects that the mean score of the previous achievement test in English of the experimental group (Urdu medium) was 53.47 and that of the control group was 53. The obtained t-value is 0.12, which is less than the table value. Hence, the null hypothesis, "there is no significance of difference between the mean scores of experimental and control groups on previous achievement tests" was accepted and both the groups could be treated as equal on the variable of previous achievement tests in English. It supports the concepts Rivers (1981) that every child has specific potential by birth. It is the responsibility of the parents, society and teachers, how they channelize that potential in proper way.

H₀ 10: There is no significance of difference between the mean scores of high achievers of experimental and control groups on previous achievement test. (Urdu medium)

Table 10: Significance of difference between the mean scores of high achievers of experimental and control groups on previous achievement test.

Group	N	df	Mean	SD	SE _D	t-value
High achievers of the experimental group	15	14	64.67	9.95	3.76	0.65*
High achievers of the control group	15	14	63.67	8.62		

*Not Significant

df=28

t-value at 0.05 = 2.14

Table 10 indicates that the difference the mean scores of high achievers of experimental and control groups on previous achievement test was statistically significant at 0.05 level in favor of experimental group. The obtained t- value through calculation is 0.65 at 0.05 level which is less than the, table value. Hence, the null hypothesis, “there is no significance of difference between high achievers of experimental and control groups on previous achievement test,” was accepted. So, the high achievers of both groups could be treated as equal.

H₀ 11: There is no significance of difference between mean scores of low achievers of experimental group and control groups on previous achievement test. (Urdu medium).

Table 11: Significance of difference between mean scores of low achievers of experimental and control groups on previous achievement test.

Group	N	df	Mean	SD	SE _D	t-value
Low achievers of the experimental group	15	14	81.93	7.45	1.76	0.90*
Low achievers of the control group	15	14	64.67	9.95		

* Not Significant

df=28

t value at 0.05 = 2.14

Table 11 reflects that there was no significant difference between the mean scores of low achievers of experimental and control groups on previous achievement. Hence, the null hypothesis, "that there is no significant difference between the mean scores of low achievers of the both groups on pretest," was accepted. The calculated t-value is 0.90, which is less than the table value and is insignificant at 0.05 level. So, both groups could be treated as equal. The findings support the concepts of Morris (1988) that students with low scores had also low interest in English.

H₀ 12: There is no significance of difference between the mean scores of experimental and control groups on posttest. (Urdu medium)

Table 12: Significance of difference between the mean scores of experimental group and control groups on post-test.

Group	N	df	Mean	SD	SE _D	t-value
Experimental	30	29	56.83	13.93	3.73	4.57*
Control	30	29	54.67	12.48		

* Significant

df=58

t value at 0.05

= 2.14

Table 12 indicates that the mean scores of the experimental group (Urdu medium) was 56.83 and that of the control group was 54.67 on post-test. Hence, the null hypothesis, "there is no significance of difference between the mean scores of experiment and control groups on posttest," was rejected; in the light on t- value obtained which is greater than the, table value at 0.05 level which is significant at 0.05 level. So, the null hypothesis was rejected.

At posttest performance of experimental group was better than control group. These results support the concept of Rivers (1981) that students show good results if they are taught with direct method accordingly.

H₀ 13: There is no significance of difference between the mean scores of high achievers of experimental and control groups on posttest. (Urdu medium).

Table 13: Significance of difference between the mean scores of high achievers of experimental and control groups on posttest.

Group	N	df	Mean	SD	SE _D	t-value
High achievers of the experimental group	30	29	88.33	2.95	3.05	0.42*
High achievers of the control group	30	29	66	5.56		

* Significant df = 58 t- value at 0.05 = 2.14

Table 13 shows that the difference between the mean scores of high achievers of experimental and control groups on post-test was statistically at 0.05 levels in favor of experimental group. The calculated value is 0.42, which is less than table value at 0.05 level. Hence, the null hypothesis, "there is no significance of difference between the mean scores of experimental and control groups on posttest" was accepted. It supports the concept of Petty (1996), that direct method has equal benefits for high, average and low achievers.

H₀ 14: There is no significance of difference between the mean scores of low achievers of experimental and control groups on post- test (Urdu medium).

Table 14: Significance of difference between the mean scores of low achievers of experimental group and control group on post-test.

Group	N	df	Mean	SD	SE _D	t-value
Low achievers of the experimental group	15	14	65	4.76	0.88	6.31*
Low achievers of the control group	15	14	45	3.05		

*Significant df = 28 t -value at 0.05 = 2.14

It appears from Table 14 that the difference between the mean scores of low achievers of experimental and control groups on post-test was not significant at 0.05 level. The calculated t-value at 0.05 level is 6.31 which is higher than table value at same level. Hence, the null hypothesis, "there is no significant difference between the mean scores of low achievers of experimental and control groups on posttest," was rejected. Hence, low achievers of both groups performed equally on the post-test. The finding contradicts the views of Huchan (1985) that direct teaching is most suitable and effective for low achievers.

H₀ 15: There is no significance of difference between the experimental and the control group on interaction effect of treatment on the performance of high and low achiever on post test.(Urdu medium).

Table 15: ANOVA (2x2) showing difference between mean scores of high and low achievers of experimental and control groups on post test.

Source of variance	Degree of freedom	Sum of squares	Mean square Variation	F value
Treatment	1	1531.7	1531.7	1.83*
Achievement level	1	3228.28	3228.28	3.86*
Interaction	1	13839.31	13839.31	16.55*
With in cells	57	47653.29	836.02	

* Not significant

F at 0.05 = 4.03

** Significant

*** Significant

Table 15 reflects that the F-value obtained with “treatment” as the source of variation, was not statistically significant. But the interaction effect between treatment and achievement level of the students was significant at 0.05 levels. Hence, the null hypothesis, “there is no significance of difference between the experimental and control groups on interaction effect of treatment on the performance of high achievers and low achievers on posttest,” was rejected.

H₀ 16: There is no significance of difference between the mean scores of experimental and control groups on retention test (Urdu medium).

Table 16: Significance of difference between mean scores of the experimental and control groups on retention test.

Group	N	df	M	SD	SE _D	t- value
Experimental	30	29	47.89	12.89	3.89	2.58*
Control	30	29	37.85	16.11		

* Significant

df = 58

t value at 0.05 level

=2.01

Table 16 shows of the control group were found to be significant. in favor of experimental group. Hence, the null hypothesis that, “ there is no significance of difference between the mean scores of experimental and control groups on retention test,” was rejected. The subjects who were taught by direct method gained more and also retained more due to the intensity of direct teaching. The results support the concept of Sweet (1992) that direct teaching is time saving and durable activity

DISCUSSION

Method plays an important role in the teaching of any language. It is a planned and systematic effort of the teacher for establishing sequence in the various parts of the teaching. The direct method also called natural method, because the students may learn the foreign language in the same way as they learn their mother tongue. While in traditional method the child learns English word by word in mother tongue. English is an international language as well as the language of science and technology. Due to its importance in our daily life and to improving the standard of English, it was necessary to conduct a study for approving a suitable method for teaching English at secondary level. Therefore a study was conducted and the obtained data was analyzed, interpreted and conclusions were drawn.

Both the experimental and control groups compared on the variable of pretest and previous achievement test. The results obtained from the statistical analysis showed that no significance of difference existed between the two groups with respect to pretest and previous achievement test in English. Therefore the null hypothesis, "there is no significance of difference between the mean scores of experimental and control groups on pretest and previous achievement test " was accepted at 0.05 level. Hence both the groups could be treated as equal.

Comparison between mean scores of high and low achievers of the experimental and control groups on posttest was insignificant at 0.05 level. So the high and low achievers of both groups were almost equal. Therefore the null hypothesis, "there is no significance of difference between the mean scores of high and low achievers of experimental and control groups on pretest," was accepted.

The performance of the experimental group was significantly better than that of the control group on post-test. The difference between the two means was significant at 0.05 level. Thus the null hypotheses that, "there is no significance of difference between mean scores of the experimental and control groups on posttest," was rejected at 0.05 level and was in the favor of the experimental groups of both English and Urdu mediums. These findings support the views of Howatt (1984) that teaching method plays an important role in enhancing the learning of the students.

While comparison of mean scores of low achievers of the experimental and the control groups showed significant difference. Thus direct method proved to be more effective for low achievers and was in the favor of experimental group. Therefore the null hypothesis, "there is no significance of difference between the mean scores of low achievers of the experimental and control groups on posttest," was rejected at 0.05 level. This finding supports the concepts of Freeman (1986) that method is a unique tool in learning process.

The F-value obtained in case of "treatment" as source of variation was found to be significant at 0.05 levels. The interaction between the treatment and achievement was also significant at 0.05 levels. Thus, the null hypothesis that, "there is no significance of difference between the mean scores of experimental and control groups on posttest" was rejected.

These results support the findings of the Bender (1998) that, "Learning takes place because the teacher sets out to provide learning situations in which a child will learn because of his natural reaction is to the material provided. It is most important to remember that no one can be, "SHOWN HOW TO DRAW" any thing.

By applying 2x2 analysis of variance (Factorial design), it revealed that the F-value obtained with “treatment” as the source of variation was not statistically significant. But the interaction effect between treatment and achievement level of the students was significant at 0.05 levels. Thus, the null hypothesis that; “there is no significance of difference between the mean scores of the high and low achievers of experimental and control groups on posttest,” was rejected.

These results support the findings of Anthony (1963) and revealed that the entire three hypotheses were rejected. It means that performance of experimental group was significantly better than that of control group on post-test on the variables of overall achievement and achievement level of the students.

To clarify the interaction between treatment and achievement level of the students, (English and Urdu mediums) are referred here where performance of high achievers of experimental groups on post-test was significantly better than that of control groups. In case of low achievers, the difference between the means scores on post-test was not significant for both (English and Urdu mediums) groups. Hence, it can be concluded that the performance of the high achievers on the post-test was significantly better than that of low achievers. Since there was no significance of difference between the mean scores of low achievers of experimental and control groups on posttest. It affected the significance of treatment variable when 2x2 analysis of variance was applied. It supports the concept of altogether (2000) that students with low scores had also low interest in English.

The overall results of the study indicated that improved learning skills and achievement level in the subject of English at secondary level improved the achievement

level of the students. The results of the study were mostly in line with those of previous researches carried out in other cultures. These results, especially about high achievers, corroborate the observations of Nihalani (1979) that every child has a specific potential by birth. It is the responsibility of the parents, society and teachers, how they channelise that potential in proper way.

The results of the study showed better performance of the students; those were taught by direct method. The study showed better performance of high achievers than that of low achievers. According to the researcher's opinion there may be a hurdle of social background and family status of the individuals. The researcher recommends for further research on this topic, selecting the individuals with the same intellect, same social background, and same family status and taught them by direct method. Brett and Bruder (1991) found that social environment, family status and physique are the factors those effect the learning process.

The experiment was carried out in both English and Urdu medium schools. Hence, the results of the study were therefore, applicable in the both types of the schools