CHAPTER - FIVE

ANALYSIS AND INTERPRETATION OF DATA

The data are studied from as many angles as possible and requires an alert flexible and open mind to discover inherent facts.

- Koul.L

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CHAPTER - FIVE

ANALYSIS AND INTERPRETATION OF THE DATA

5.1 Introduction

The main objective of the present study is to determine the effect, the humanistic orientation input on student's and cognitive growth variables. The students of standard VIII belonging to four selected schools are given pre-tests on the selected personal and cognitive growth variables. After ensuring that all the selected schools do not differ significantly in their pre-test performance, two groups are formed and are randomly assigned to experimental and control groups. Two parallel experimental intervention studies were conducted to strengthen and generalise the results. The nature of experiment and variables studied are common in study I and II except the type of school i.e., the first one being a girls' and the second being a co-education school.

The first section of this chapter presents the analysed data with respect to teachers in terms of pre-post observations once before and once after the training to assess the enhanced level of humanistic orientation.

The second section deals with the analysis of data variable-wise in terms of students' gain in personal and cognitive growth. The data were subjected to descriptive, differential correlational, profile and meta-analyses and were computerized in the Indian statistical Institute, Madras.

The third section deals with the testing of hypotheses in the light of the obtained results.

5.A. HUMANISTIC ORIENTATION OF TEACHERS

5A.1 Introduction:

In the present investigation, the main hypothesis is how the enhanced level of humanistic orientation of teachers nurtures and facilitates the personal and cognitive growth of their students. In order to verify this hypothesis, an input course of training was given to the teachers of experimental groups in Study I and II. The results obtained in pre and post-training ratings and observations with respect to humanistic interpersonal skills and class-room interaction of teachers and pupils have been tabulated and analysed in this section.

5A.2 **Enhancement of humanistic interpersonal skills:**

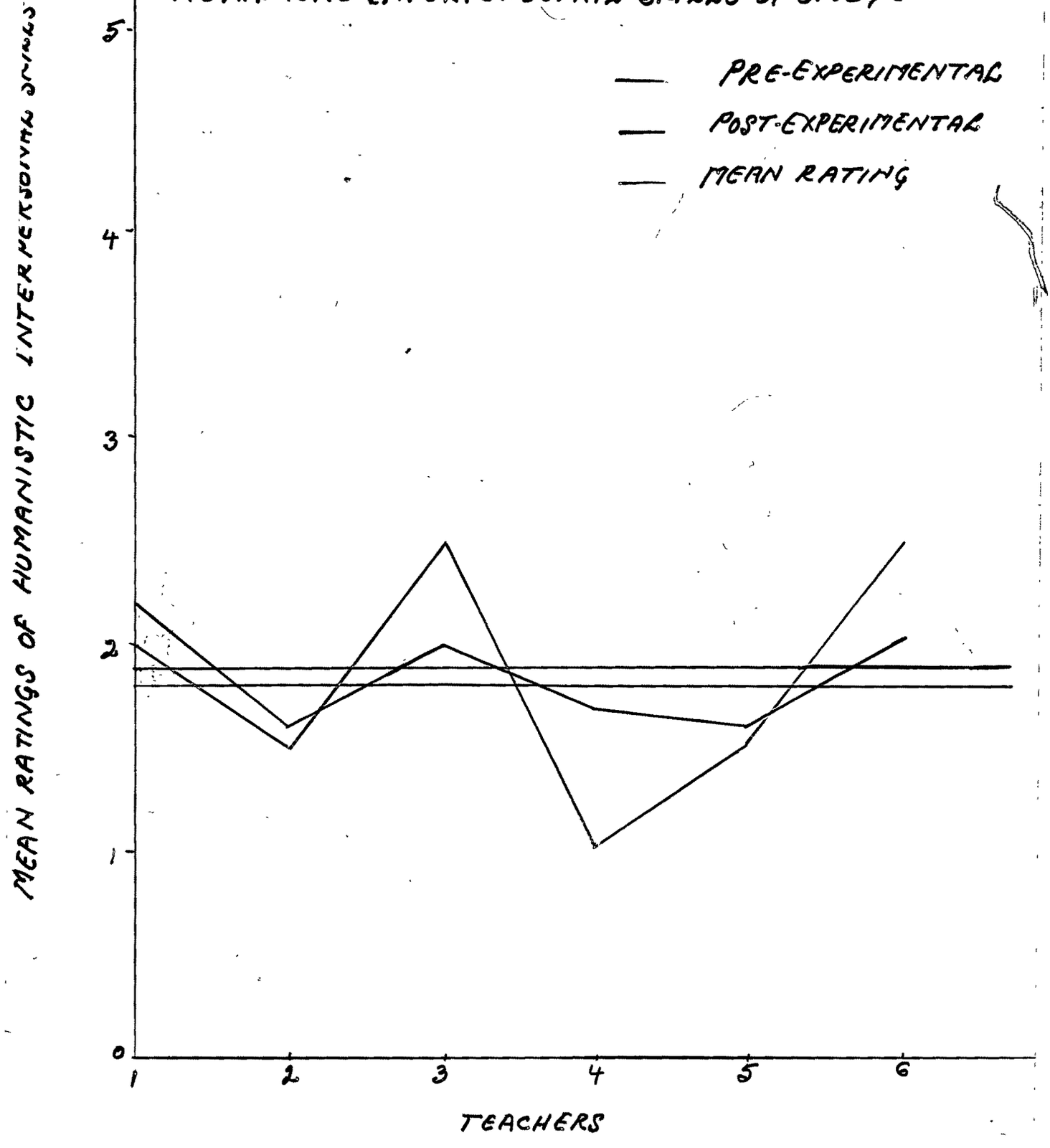
In order to assess the enhanced level of humanistic interpersonal skills, the rated responses of the teachers before and after the training are presented in the following table.

S T U D Y - I

Table-7: Pre-post-training rating of responses of experimental teachers and rating by the group at the end of training for their humanistic interpersonal skills - Study I.

Teacher	Pre-training		Post-training		Rating by the Group
	Mean Rating by the teacher	Discrimination Index	Mean Rating by the teacher	Discrimination Index	
1	1.50	1.60	3.00	0.60	3.00
2	2.50	1.50	3.50	0.50	3.00
3	2.00	1.60	4.00	0.50	3.50
4	1.00	1.80	2.50	0.60	3.00
5	1.50	1.50	3.00	0.50	2.50
6	3.00	1.00	5.00	0.50	4.00
Mean	1.92	1.50	3.52	0.53	3.17

GRAPH SHOWING PRE AND POST EXPERIMENTAL RATINGS OF CONTROL TEACHERS FOR THEIR HUMANISTIC INTERPERSONAL SKILLS OF STUDY I



GRAPH SHOWING PRE AND POST EXPERIMENTAL RATINGS OF CONTROL TEACHERS FOR THEIR HUMANISTIC INTERPERSONAL SKILLS OF STUDY I

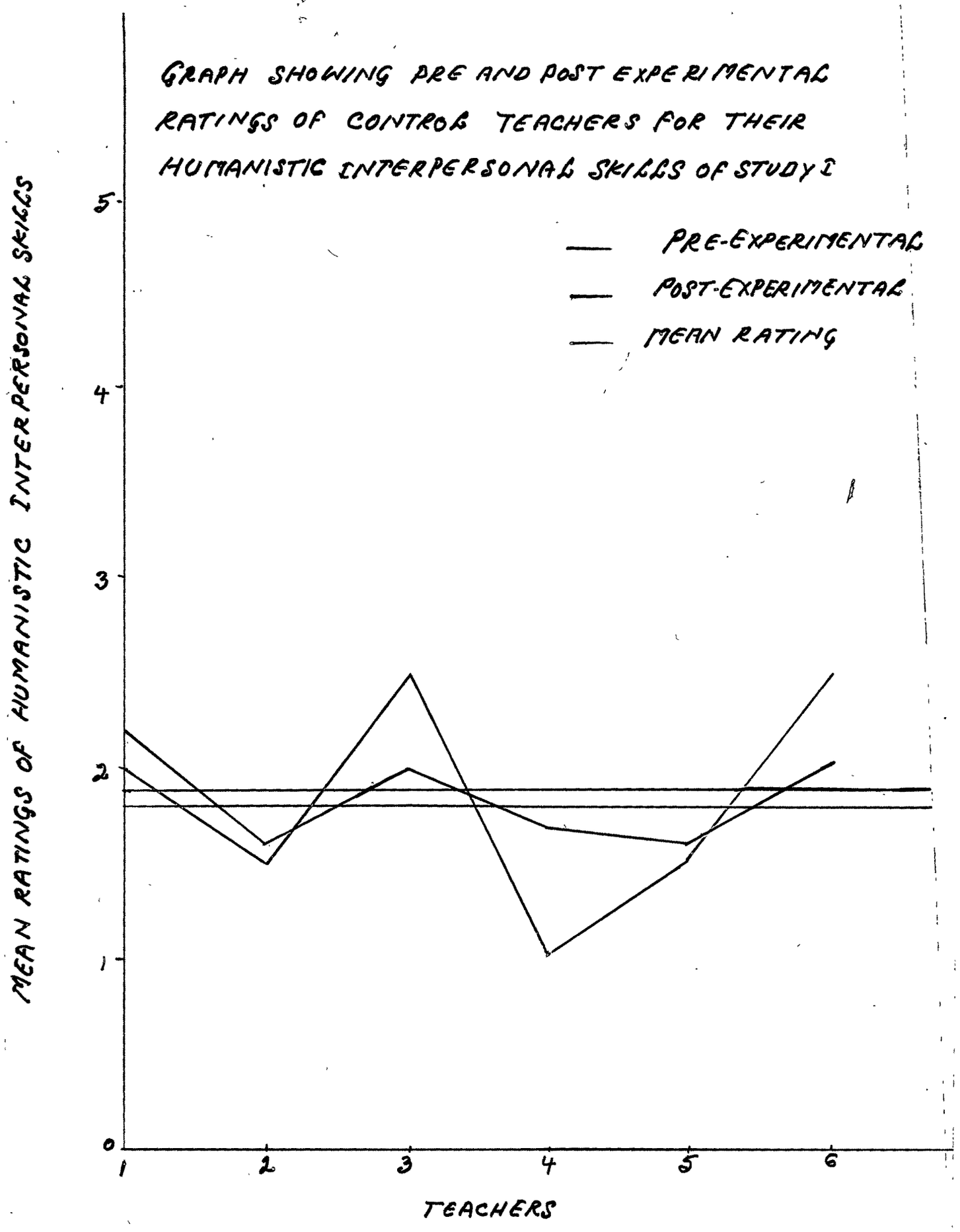
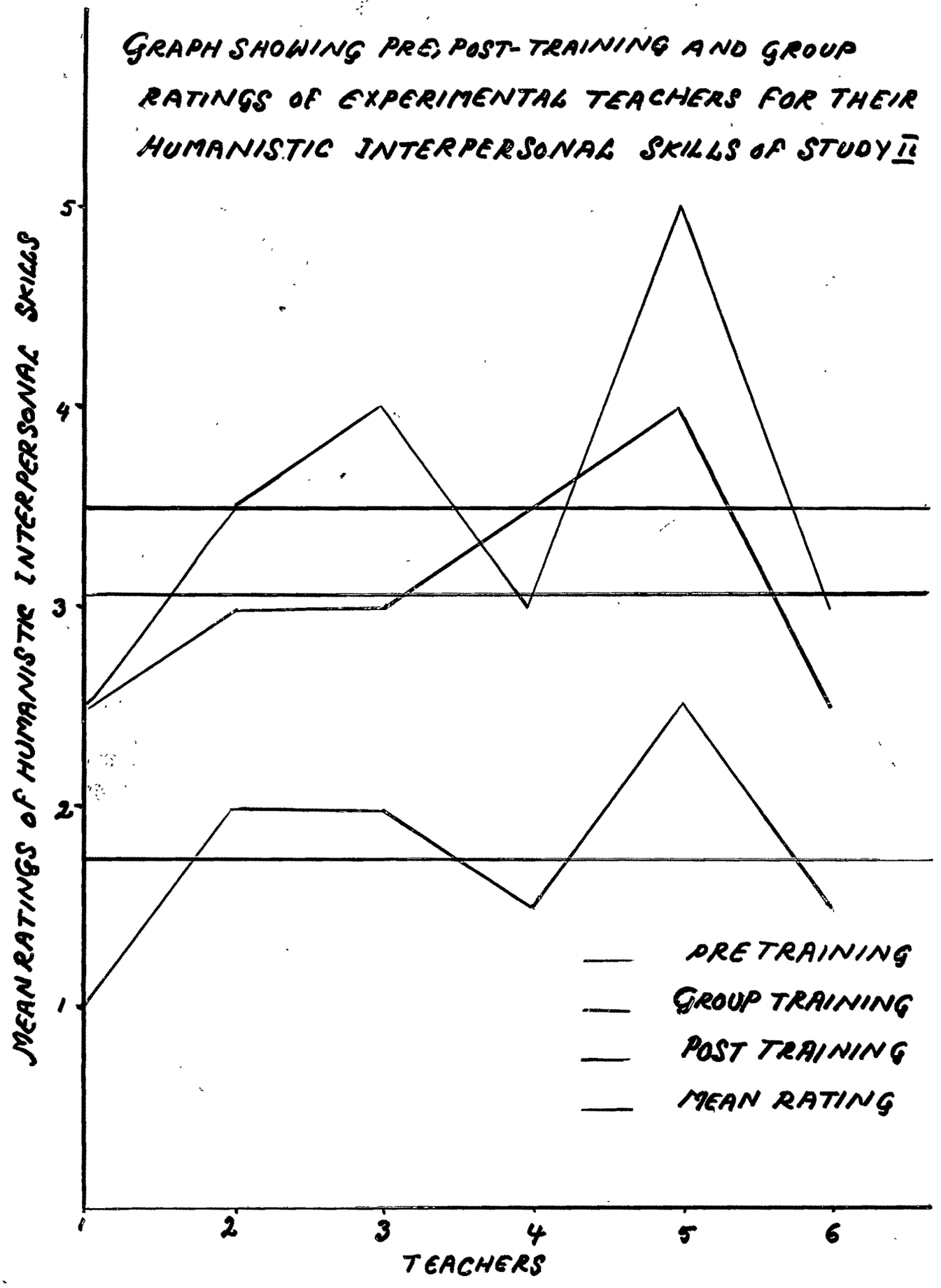


Table-8: Pre and post experimental ratings of responses by the teachers of Control Group-I for their humanistic inter-personal skills.

Teacher:	Pre-experimental Ratings		Post-experimental Ratings	
	Mean Rating by the teacher	Discrimination Index	Mean Rating by the teacher	Discrimination Index
1	2.00	1.60	2.20	1.50
2	1.50	1.60	1.60	1.60
3	2.50	1.40	2.00	1.50
4	1.00	1.80	1.70	1.70
5	1.50	1.60	1.60	1.50
6	2.50	1.30	2.00	1.20
Mean	1.83	1.55	1.85	1.50

Reading through the tables, all the teachers of experimental group who received training showed a distinct growth in their humanistic inter-personal skills of their responses on self-rating and also on the rating by the group. Discrimination index is also decreased by 1 and more than 1 between pre and post-training ratings of

GRAPH SHOWING PRE, POST-TRAINING AND GROUP RATINGS OF EXPERIMENTAL TEACHERS FOR THEIR HUMANISTIC INTERPERSONAL SKILLS OF STUDY II



teachers indicating that all of them reached the levels more than minimally facilitative except one teacher in post-training rating and another teacher on group rating. Whereas the teachers of control group, who did not receive humanistic orientation training remained almost at the same level of humanistic orientation, as evidenced by the pre and post-experimental ratings and discrimination indices.

It can be concluded that experimental teachers of study I enhanced their level of humanistic inter-personal skills due to the given humanistic orientation training.

S T U D Y - II

Table-9: Pre-post-training rating of experimental teachers and rating by the group at the end of training for their humanistic inter-personal skills.

Teacher	Pre-training		Post-training		Rating by the Group
	Mean Rating by the teacher	Discrimination Index	Mean Rating by the teacher	Discrimination Index	
1	1.00	1.80	2.50	0.50	2.50
2	2.00	1.50	3.50	0.60	3.00
3	2.00	1.60	4.00	0.50	3.00
4	1.50	1.60	3.00	0.50	3.50
5	2.50	1.40	5.00	0.40	4.00
6	1.50	1.70	3.00	0.50	2.50
Mean	1.75	1.60	3.50	0.50	3.08

GRAPH SHOWING PRE AND POST EXPERIMENTAL RATINGS OF CONTROL TEACHERS FOR THEIR HUMANISTIC INTERPERSONAL SKILLS OF STUDY II

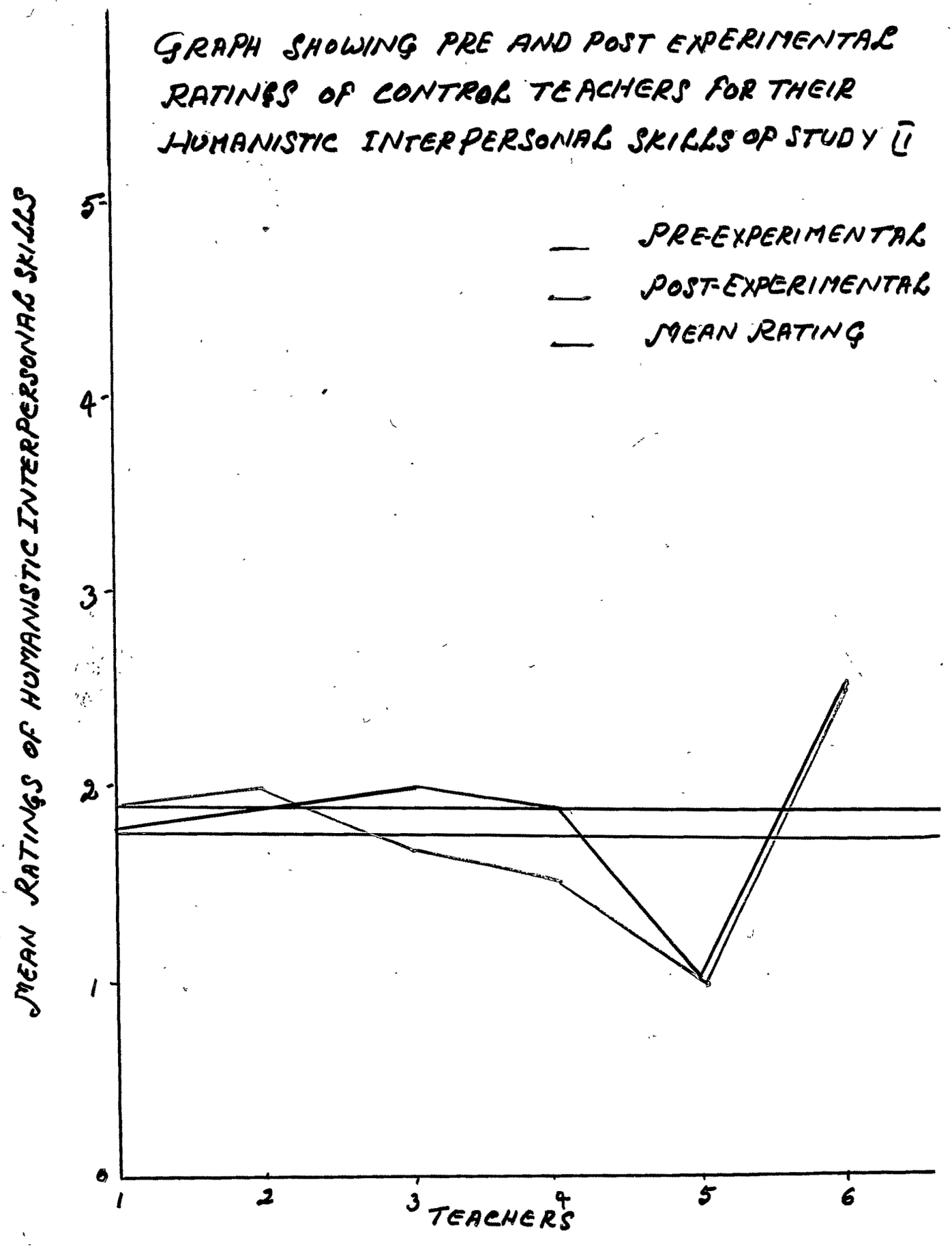


Table-10: Pre and Post experimental ratings of responses by the teachers of control group-II for their humanistic inter-personal skills.

Teacher	Pre-experimental Ratings		Post-experimental Ratings	
	Mean Rating by the teacher	Discrimination Index	Mean Rating by the teacher	Discrimination Index
1	1.90	1.70	1.80	1.60
2	2.00	1.40	1.90	1.50
3	1.70	1.50	2.00	1.60
4	1.50	1.30	1.90	1.40
5	1.00	1.20	1.50	1.30
6	2.50	1.10	2.50	1.20
Mean:	1.77	1.37	1.93	1.43

Study II also shows that there is a marked enhancement in the level of humanistic inter-personal skills of teachers on their self-rating and also on the rating by the group in their post-training period. Post-training discrimination index is found to be 0.5 and less than 0.5 except in one case which denotes that the rating of responses by the teacher do not deviate

much from the trained rater. The pre and post experimental rating and discrimination indices as exhibited by the control group of teachers remained almost at the same level.

Therefore one can conclude that due to the training given, the teachers raised their level of inter-personal skills at least to a minimally facilitative level.

In both the studies, there is a marked evidence of enhancement in teacher's humanistic inter-personal skills as a result of the given humanistic orientation training.

5A.3 **Class-room interaction:**

In order to study whether there is any change in class room interactions of teachers, in creating facilitative class room climate due to humanistic orientation training, pre and post-experimental observations of class-room interactions in terms of positive and negative behaviours of both teachers and pupils have been analysed furnished in the following tables.

T A B L E - 11

ANALYSIS OF PRE-POST OBSERVATIONS OF CLASS-ROOM INTERACTION IN EXPERIMENTAL TEACHERS OF STUDY-I

TEACHER	CATEGORIES		TEACHER BEHAVIOURS											PUPIL BEHAVIOURS										
			INFORMATIVE			RESPONDING		PERSUADING			SUPPORTING		TOTAL %	RESPONSIVE			INITIATIVE				CO-OPERATIVE			TOTAL %
			1	2a	2b	3a	3b	4	5	6	7	8		9a	9b	10	11	12a	12b	13	14	15	16	
	% of Positive	Pre	2.0	0.0	1.0	1.2	0.0	1.3	1.1.	1.5	0.0	1.0	9.1	2.8	1.8	1.0	2.0	0.0	0.0	1.5	1.0	0.5	1.0	12.6
1	Behaviours	Post	4.1	2.5	2.6	3.1	1.8	3.0	2.8	3.1	0.0	3.0	26.0	4.5	3.6	4.8	4.2	3.0	3.1	4.2	3.8	2.1	3.0	36.3
	% of Negative	Pre	5.0	6.0	4.0	4.5	4.2	5.2	4.6	2.8	5.2	1.6	43.1	5.2	6.1	5.0	3.0	4.8	3.6	3.8	4.5	3.0	4.0	43.0
	Behaviours	Post	1.3	1.0	1.1	0.0	1.0	2.1	1.5	1.1	2.1	0.0	11.2	1.8	2.0	1.4	0.0	1.3	1.1	1.0	1.6	0.0	2.0	12.2
	% of Postive	Pre	3.4	1.1	1.0	3.0	2.2	1.5	1.0	3.0	0.0	2.2	17.4	4.6	2.8	2.0	2.6	2.0	1.8	1.6	1.8	1.1	0.0	20.3
2	Beviours	Post	5.1	3.5	4.1	4.2	4.8	4.0	3.0	4.3	3.1	3.5	39.6	5.0	3.8	3.1	4.1	3.8	3.2	3.3	2.5	3.9	4.1	36.8
	% of Negative	Pre	3.8	4.5	3.0	2.0	2.0	3.6	5.6	2.0	5.1	3.0	34.6	2.6	4.8	4.0	1.8	5.1	3.8	3.8	5.2	3.8	2.0	36.9
	Behaviours	Post	1.3	2.1	1.0	0.0	0.5	1.1	2.1	1.0	2.1	1.0	12.2	1.0	1.6	1.8	1.0	1.6	1.1	2.1	2.1	1.2	0.0	13.5
	% of Postive	Pre	1.0	1.0	1.0	1.5	2.1	1.5	1.0	3.4	0.0	1.8	14.3	3.1	2.6	2.1	2.8	3.0	1.7	2.1	1.9	2.1	0.0	21.4
3	Behaviours	Post	4.1	4.2	4.8	3.4	4.9	4.1	3.5	4.1	3.4	4.6	41.1	4.2	4.7	5.1	3.4	5.0	3.8	4.1	3.0	2.2	1.8	37.3
	% of Negative	Pre	3.0	2.0	3.1	4.1	3.8	4.6	5.1	2.8	4.9	3.2	36.6	4.3	5.1	3.2	2.9	5.0	2.1	3.6	2.0	4.0	1.8	34.0
	Behaviours	Post	1.5	1.0	1.1	2.7	0.0	2.1	2.3	1.0	2.5	1.8	16.0	2.1	2.6	1.1	1.0	2.0	0.5	1.1	1.0	2.1	0.5	14.0
	% of Positive	Pre	1.2	1.8	2.1	3.0	1.6	1.2	2.1	1.9	1.2	1.2	17.3	0.0	2.2	1.1	2.1	1.6	1.9	2.1	1.6	2.1	0.0	14.7
4	Behaviours	Post	4.4	3.9	5.0	4.0	3.5	3.2	3.1	3.9	4.1	2.2	37.3	1.5	4.6	3.9	4.1	3.5	3.8	4.1	3.6	4.0	1.5	34.6
	% of Negative	Pre	3.1	4.6	3.1	2.0	3.2	4.8	5.1	3.6	3.8	2.8	36.5	1.9	4.6	3.2	4.9	4.1	3.6	4.0	4.8	4.2	2.0	37.3
	Behaviours	Post	0.0	3.1	1.2	0.5	1.5	1.8	1.9	1.1	1.5	1.0	13.6	0.0	2.1	1.8	1.2	1.9	2.0	2.0	2.1	1.5	2.1	16.7
	% of Positive	Pre	1.2	1.8	0.0	1.1	1.0	0.0	1.6	1.2	1.2	1.3	10.4	1.1	2.1	0.0	1.6	0.0	1.6	1.8.	2.0	1.8	0.0	12.0
5	Behaviours	Post	3.5	3.6	1.2	2.5	2.8	3.0	3.9	4.1	3.6	3.8	32.0	3.0	4.0	1.0	2.0	1.5	3.2	2.8	3.1	4.1	1.3	26.0
	% of Negative	Pre	4.1	5.0	4.1	4.6	3.9	4.9	4.1	3.1	5.1	2.1	41.0	2.1	3.9	3.6	3.9	1.8	4.2	3.1	4.9	3.8	3.1	34.4
	Behaviours	Post	2.2	3.1	2.1	1.9	2.0	2.1	1.9	1.5	2.1	1.0	19.9	0.0	2.0	2.1	1.8	1.0	2.1	0.0	2.1	1.8	1.4	14.3
	% of Positive	Pre	3.2	1.2	3.6	1.1	0.0	1.3	1.0	1.8	1.2	1.6	16.0	1.9	2.1	1.5	2.3	1.1	0.0	1.2	1.2	1.1	1.0	13.4
6	Behaviours	Post	4.1	2.9	4.6	2.5	1.8	3.8	4.1	4.2	2.9	3.5	34.4	2.5	3.9	2.8	3.5	2.9	0.5	3.0	2.3	1.8	1.1	24.3
	% of Negative	Pre	1.6	1.8	1.8	4.7	4.2	5.1	4.3	3.1	4.2	2.1	32.9	4.1	5.2	4.1	2.5	3.2	2.6	3.9	4.6	3.2	4.2	37.6
	Behaviours	Post	1.3	1.0	1.5	2.1	1.2	1.8	1.9	1.5	2.1	0.0	14.4	2.5	1.6	2.2	1.8	2.4	1.0	1.5	2.1	1.8	2.1	19.0

T A B L E - 12

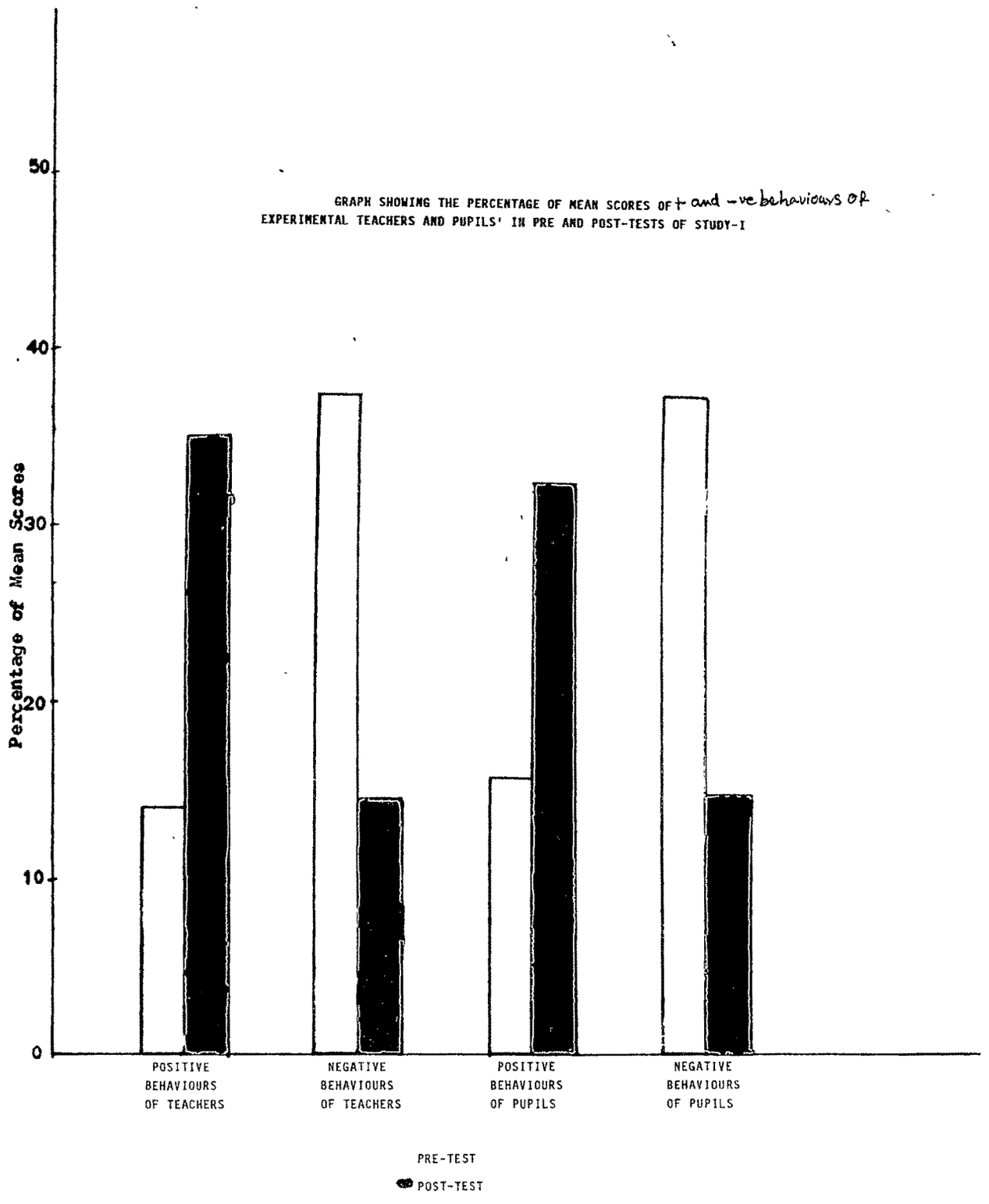
ANALYSIS OF THE PRE-POST OBSERVATIONS OF CLASS-ROOM INTERACTION IN EXPERIMENTAL TEACHERS OF STUDY-II

TEACHER	CATEGORIES		TEACHER BEHAVIOURS: INFORMATIVE 1	2a	2b	RESPONDING 3a	3b	PERSUADING 4	5	SUPPORTING 6	7	8	TOTAL %	RESPONSIVE 9a	9b	10	11	INITIATIVE 12a	12b	13	CO-OPERATIVE 14	15	16	TOTAL %
	% of Postive	Pre	1.0	0.0	1.0	1.3	0.0	1.3	1.3	1.6	0.0	1.6	9.1	2.1	1.6	0.0	1.0	1.2	0.0	1.8	1.2	0.0	1.1	10
1	Behaviours	Post	3.0	4.1	3.1	5.2	4.2	3.9	4.1	2.3	4.1	2.1	36.1	4.7	3.9	5.1	4.8	3.9	3.6	4.2	4.1	2.6	2.9	44
	% of Negative	Pre	5.1	6.2	3.1	3.8	4.1	4.7	4.2	2.1	4.9	2.6	40.8	5.1	4.3	4.8	4.6	4.9	3.2	4.1	4.2	3.1	3.3	41.6
	Behaviours	Post	1.2	0.5	1.2	0.0	1.2	1.4	1.6	1.4	1.1	0.0	9.6	1.2	1.0	1.2	0.0	1.0	1.5	1.3	1.1	0.5	1.2	10
	% of Positive	Pre	2.0	1.0	1.6	0.0	1.3	1.4	1.8	1.2	1.6	1.7	13.6	1.6	2.1	1.2	2.1	0.0	1.0	1.1	0.0	1.6	1.0	11.7
2	Behaviours	Post	3.9	5.1	4.2	2.1	2.6	3.9	5.2	3.0	4.5	2.1	36.6	4.1	5.8	3.9	3.1	4.6	4.1	3.1	4.2	3.9	4.0	40.8
	% of Negative	Pre	4.1	5.2	3.8	4.0	4.6	5.1	4.1	2.1	5.1	1.8	39.9	5.1	6.2	4.0	3.6	4.2	3.1	3.0	4.1	4.2	3.9	41.4
	Behaviours	Post	1.0	2.1	1.8	1.2	0.0	1.2	1.8	1.8	2.0	1.0	13.9	1.2	2.6	1.6	2.8	1.1	0.0	1.8	2.0	0.0	1.8	14.9
	% of Positive	Pre	2.1	1.2	1.8	0.0	2.0	1.8	1.7	0.0	1.7	1.6	13.8	1.1	0.0	1.5	1.1	1.2	1.0	0.0	1.3	0.5	1.8	9.5
3	Behaviours	Post	5.1	3.5	5.6	4.8	5.1	4.8	3.9	2.1	4.1	3.9	56.7	4.1	4.2	5.1	3.8	4.2	3.9	4.5	5.1	4.3	3.8	43
	% of Negative	Pre	4.1	3.9	6.1	5.1	5.8	4.9	4.8	5.6	3.9	4.0	48.2	4.6	5.2	3.9	4.0	3.5	4.1	5.1	4.2	3.6	4.1	17
	Behaviours	Post	1.3	1.9	2.0	1.1	1.3	1.1	0.0	0.0	1.7	1.1	11.5	2.1	1.8	0.0	1.1	1.8	0.0	1.1	1.5	1.1	0.0	10.5
	% of Positive	Pre	1.2	1.6	0.0	1.9	0.0	1.8	1.6	0.0	1.9	1.3	11.3	1.6	2.1	0.0	1.1	1.2	0.0	1.3	2.1	1.1	0.0	10.5
4	Behaviours	Post	4.8	5.1	3.9	4.1	4.1	4.9	3.9	5.1	3.1	4.1	43.1	4.1	3.9	4.1	4.9	4.3	4.9	4.1	3.2	4.1	4.1	41.7
	% of Negative	Pre	3.9	4.1	3.3	4.9	3.2	3.9	4.5	5.1	3.6	4.1	40.6	3.9	5.1	2.1	3.9	4.5	5.1	0.0	4.1	3.9	4.1	36.7
	Behaviours	Post	1.5	1.0	2.1	1.2	0.0	1.7	1.9	1.8	1.0	0.5	12.7	1.1	1.8	0.0	1.1	1.0	1.3	2.1	1.1	0.0	1.1	10.6
	% of Positive	Pre	1.3	0.0	1.3	0.0	1.2	1.3	1.1	1.0	1.7	0.5	9.4	0.0	2.1	1.3	1.1	0.0	3.1	1.2	1.8	1.2	0.0	11.8
5	Behaviours	Post	4.6	3.9	0.0	4.1	4.8	4.6	4.7	5.2	4.3	3.3	39.5	3.1	5.1	4.1	3.9	4.1	1.3	5.1	4.6	3.9	1.9	37.1
	% of Negative	Pre	3.9	4.1	0.0	4.9	1.9	3.6	5.1	4.1	3.7	3.3	34.6	3.6	4.3	4.8	5.1	3.9	3.6	4.1	3.8	4.6	4.2	42.0
	Behaviours	Post	1.2	0.0	1.3	1.1	1.1	1.5	1.0	1.0	0.5	1.1	9.8	1.1	1.2	1.4	1.6	1.3	0.0	1.2	1.3	1.1	1.3	11.5
	% of Positive	Pre	1.4	0.0	1.7	1.2	1.1	1.0	1.5	1.4	1.3	1.4	12.0	1.2	1.3	1.1	1.5	1.0	0.0	1.3	1.4	1.3	1.3	11.4
6	Behaviours	Post	4.3	3.2	4.2	5.1	4.3	4.6	4.3	4.6	0.0	3.9	38.5	4.2	4.8	3.9	4.4	5.1	3.7	4.2	4.4	4.6	5.3	44.6
	% of Negative	Pre	4.3	4.5	5.2	4.7	3.9	1.7	1.2	1.1	1.5	1.4	29.5	4.4	4.8	4.1	5.1	4.6	5.2	3.9	0.0	4.3	4.7	41.1
	Behaviours	Post	1.1	1.3	1.4	1.7	0.0	4.5	4.7	5.2	4.9	4.3	29.1	0.0	1.3	1.2	1.5	1.1	1.8	0.0	1.2	0.0	1.7	9.8

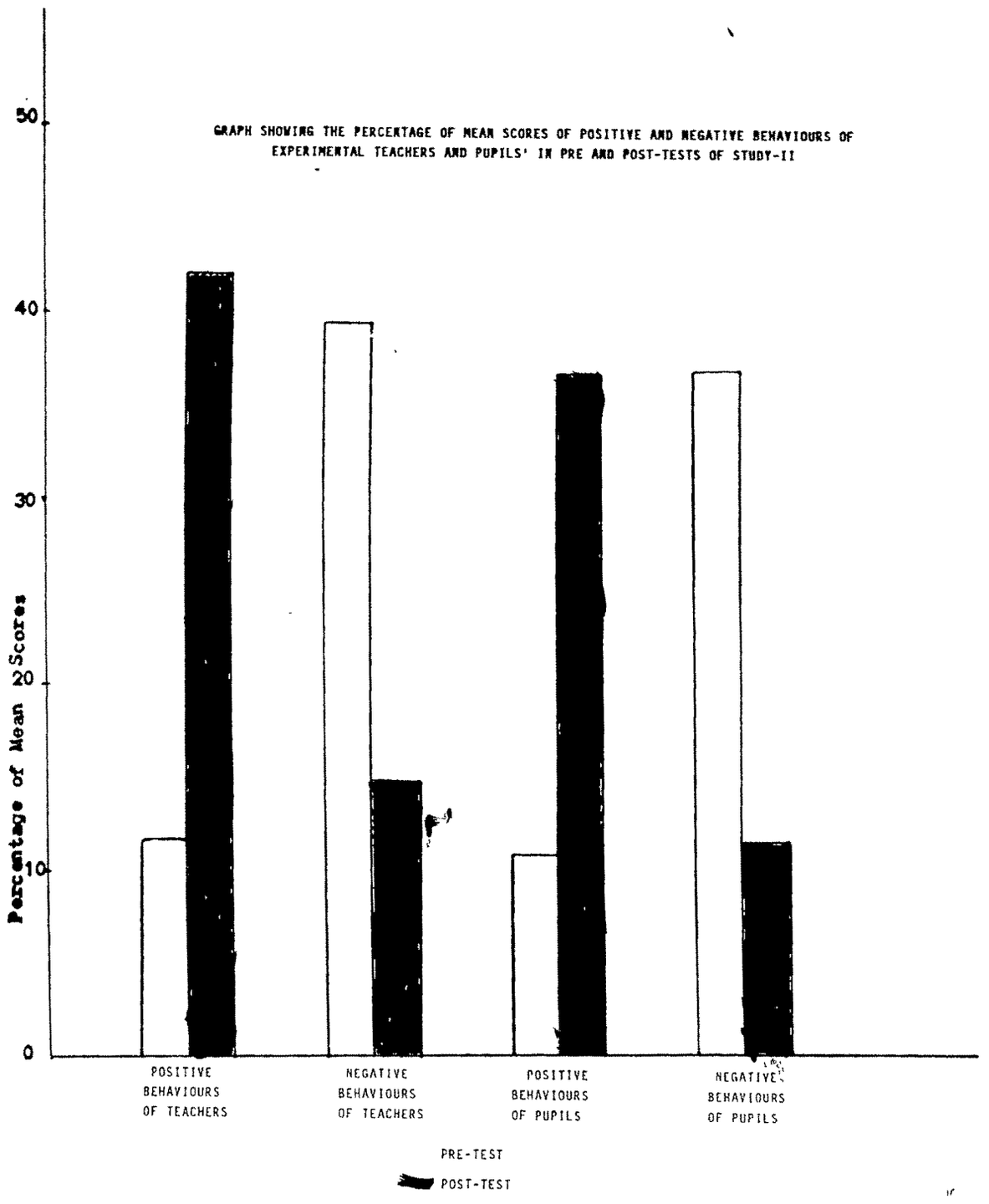
TABLE - 13 : MEAN PERCENTAGES OF POSITIVE AND NEGATIVE BEHAVIOURS OF EXPERIMENTAL TEACHERS AND PUPILS OF STUDY I AND II

TEST	STUDY - I				STUDY - II			
	Mean percentage of positive behaviours of teachers	Mean percentage of negative behaviours of teachers	Mean percentage of positive behaviours of pupils	Mean percentage of negative behaviours of pupils	Mean percentage of positive behaviours of teachers	Mean percentage of negative behaviours of teachers	Mean percentage of positive behaviours of pupils	Mean percentage of negative behaviours of pupils.
Pre-Test	14.08	37.45	15.73	37.20	11.53	38.93	10.81	36.61
Post-Test	35.04	14.55	32.55	14.78	41.75	14.43	36.33	11.22

GRAPH SHOWING THE PERCENTAGE OF MEAN SCORES OF + and -ve behaviours OF EXPERIMENTAL TEACHERS AND PUPILS' IN PRE AND POST-TESTS OF STUDY-I



GRAPH SHOWING THE PERCENTAGE OF MEAN SCORES OF POSITIVE AND NEGATIVE BEHAVIOURS OF EXPERIMENTAL TEACHERS AND PUPILS' IN PRE AND POST-TESTS OF STUDY-II



From the above tables, the following observations could be made.

1. All teachers, without exception increased the percentage of positive class room interactions to a very high degree from pre to post experimental observations.

2. The average percentage of positive behaviours of teachers in terms of informative, responding, persuading and supportive increased from 14.08% to 35.04% in Study I and II.53% to 41.75% in Study II respectively. Accordingly, the average percentage of positive behaviours of pupils with respect to responsive, initiative and co-operative increased from 15.73% to 32.55% in Study I and 10.81% to 36.33% in Study II.

3. The average percentage of negative behaviours of teachers pertaining to informative, responding, persuasive and supportive decreased from 37.45% to 14.55% and 38.93% to 14.43% in Study I and II respectively. As a result the average percentage of negative behaviours of their pupils pertaining to responsive, initiative and cooperative decreased dfrom 37.20% to 14.78% and 36.61% to 11.22% in Study I and II respectively.

Therefore, both the studies conclusively confirm that all the experimental teachers enhanced their positive class room interactions due to the humanistic orientation programme. Correspondingly their students decreased their negative behaviours and showed a marked increase in their positive behaviours.

5.A.4 **Overall Observations and findings:**

From the above analysis of data pertaining to teachers, it is evident that as a result of the humanistic orientation training programme, all the teachers of experimental groups enhanced their humanistic inter-personal skills at least to a minimally facilitative level.

The teachers of control groups who did not receive the training, remained unchanged in their levels of humanistic inter-personal skills.

The enhancement of humanistic inter-personal skills is not the same in all the teachers of the experimental groups in Study I and II as they had their own tendency to react, habits, acculturation, etc.

Class room interaction of teachers changed to more positive. The percentage of positive behaviours of experimental teachers pertaining to informative, responding, persuasive and supportive increased to a marked extent in post observations due to the humanistic orientation training programme.

It is also observed that an increase in the percentage of positive behaviours of experimental teachers was accompanied by the decrease in percentage of their negative behaviours.

An increase in the percentage of positive behaviours of teachers led to an increase in the positive behaviours of pupils in terms of their responsiveness initiativeness and co-operativeness.

It is observed that as the percentage of positive behaviours of pupils increased, correspondingly their negative behaviours decreased.

There was a more positive interaction in the class rooms of teachers in Study II than in Study I.

The enhancement and use of humanistic inter-personal skills led to more positive class room interaction and generated a democratic, warm and friendly climate which in turn is exhibited in higher levels of attention, interest and motivation among students.

OBJECTIVE-3

To study the effect of humanistic orientation to teachers on personal growth of their students with respect to students' -

a) motivation for schooling,
b) academic self concept-performance based,
c) academic self concept-reference based,
d) sense of control over performance,
e) instructional mastery,
f) attitude towards school,
g) self-esteem,
h) perception of their teachers, and
i) sociometric status.

5.B. STUDENTS' PERSONAL AND COGNITIVE GROWTH:

5.B.1. Introduction:

The analysis of data in terms of teachers presented in the previous section reveals that teachers of experimental groups showed a distinct improvement in the enhancement of humanistic interpersonal skills as well as in their positive interactions with students. In order to find out the effect of enhanced level of humanistic orientation of teachers on the selected personal and cognitive growth variables of their students, the data were analysed variable-wise.

5.B.2. Personal growth:

This is one of the two dependent variables studied with respect to students. This variable includes four dimensions viz., 1. Students' attitude towards school, 2. Self-esteem, 3. Students' perception of their teachers, and 4. Sociometric status of students. A comparative analysis of pre and post-tests of experimental and control groups is made and the results are presented below.

5.B.2.1. **Differential analysis:**

The data were subjected to 't' and 'F' tests to determine the significance of difference between pre and post tests of experimental and control groups.

Under the first dimension, students' attitude towards school, there are five sub-scales namely, 1.Motivation for schooling, 2. Academic self-concept - performance based, 3. Academic self-concept - reference based, 4. Students' sense of control over performance and 5. Students' instructional mastery. A total score to represent students' attitude towards school is also calculated by adding the scores of all the above mentioned sub-scales.

5 B.2.1.1 **Motivation for schooling:**

This aspect of students' academic motivation reveals how students' feel about their total school experience, to what extent they value school and how much they would like to pursue their further schooling. Higher score on this scale indicates higher motivation level and lower score indicates lower level of motivation. To find out the difference between means of pre and post-tests of

experimental, control and in post-tests of experimental versus control groups, 't' values are computed for study I and II and are presented in the following tables.

STUDY - I

Table - 14 : Results of treatment on students' motivation for schooling.

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group	45	53.56	6.35	57.60	5.01	3.36**
2.	Control group	44	55.76	5.85	54.44	7.53	0.92NS
3.	Experimental Vs Control group				57.60 54.44	5.01 7.53	2.35*

** Significant at 0.01 level

* Significant at 0.05 level

NS Not significant

Results:

From the results, it can be concluded that the experimental group has gained significantly and also over the

control group in students' level of motivation for schooling after the treatment. The humanistic treatment has helped the students to increase their level of motivation for schooling to a significant extent.

STUDY - II

Table - 15 : Results of treatment on students' motivation for schooling

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group	47	54.6	4.81	59.00	3.20	5.25**
2.	Control group	50	53.92	5.91	51.64	5.11	2.07*
3.	Experimental Vs Control group				59.00 51.64	3.2 5.11	8.48**

** Significant at 0.01 level.

* Significant at 0.05 level.

From the results of 't' values, it can be concluded that the experimental group has gained significantly over pre-test and also over the control group in students' motivation for schooling after the treatment. It is quite

obvious that the treatment given to experimental group has helped students to increase their level of motivation to a significant degree.

The results of Study I and II conclusively confirm that the input programme has been effective in increasing the levels of motivation for schooling significantly in the recipients of the treatment.

5 B.2.1.2. **Academic self-concept-performance based:**

This variable is concerned with the students' confidence in their academic abilities and how they feel about their performance in the school.

STUDY - I

Table - 16 : Results of treatment on students' academic self-concept-performance based.

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group	45	46.12	4.91	50.72	5.50	4.21**
2.	Control group	44	48.52	5.14	46.28	7.38	1.66NS
3.	Experimental group Vs Control group				50.72 46.28	5.50 7.38	3.24**

** Significant at 0.01 level
NS Not siginficant

Results:

The obtained 't' values between pre and post tests of experimental, control and experimental versus control groups in post-tests reveal that the experimental group has gained significantly over pre-test and also over control group, with respect to students' academic self-concept performance based after the treatment. It is evident that the treatment given has helped students to increase their academic self-concept to a significant level, in terms of their confidence in academic abilities, feeling of importance as a member of their class etc.

STUDY - II

Table - 17 : Results of treatment on students' academic self-concept - performance based.

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group	47	49.32	3.86	55.48	3.68	7.96**
2.	Control group	50	48.0	5.93	46.92	4.71	1.01NS
3.	Experimental Vs Control group				55.48 46.92	3.68 4.71	9.98**

** Significant at 0.01 level,
NS Not significant.

Results:

The 't' value 7.96 between pre and post test of experimental group with respect to students' academic self-concept performance based is highly significant at 0.01 level.

The 't' value 1.01 between pre and post-tests of control group in students' academic self-concept performance based is not significant at both levels i.e., 0.05 and 0.01. It is also noticed that the pre-test mean score is found to be greater than post-test mean score indicating a negative gain of (-1.08). It seems students might have felt monotony to take the same test for the second time. The obtained 't' value 9.98 between the mean scores of experimental and control groups in post-test is found to be highly significant at 0.01 level.

From the above observations one can conclude that the experimental group has gained significantly in students' academic self-concept based on their performance and also over the control group after the treatment. It is quite clear that the treatment has helped the students to increase their level of academic self-concept significantly based on their performance.

The results of study I and II together confirm that the humanistic input programme has been effective in enhancing the level of academic self-concept of students significantly, based on their performance.

5 B.2.1.3. **Academic self-concept - reference based:**

This aspect of school attitude measure reveals how students think that people like teachers, family and friends feel about their performance in the school and their ability to succeed academically.

STUDY - I

Table - 18 : Results of treatment on students' academic self-concept-Reference based.

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group	45	43.80	5.78	50.20	4.57	5.86**
2.	Control group	44	44.36	5.63	43.96	7.28	0.29NS
3.	Experimental group Vs Control group				50.20 43.96	4.57 7.28	4.88**

** Significant at 0.01 level
NS Not significant

The above table brings out a comparison between the mean scores of pre and post-tests of experimental, control and experimental versus control groups in post-tests.

Results:

From the 't' values, it is observed that the experimental group has gained significantly over the pre-test and also over the control group in students' academic self-concept - reference based, after the experimental treatment. It can be concluded that the treatment given has helped the students to increase their level of academic self-concept significantly based on what others expect of their performance in school.

STUDY - II

Table - 19 : Results of treatment on academic self-concept - reference based.

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group	47	47.88	4.55	53.56	4.99	5.80**
2.	Control group	50	45.94	6.68	43.96	5.90	1.18NS
3.	Experimental Vs. Control group				53.56 43.96	4.99 5.90	8.67**

** Significant at 0.01 level
NS Not significant

Results:

The 't' value 5.80 between pre and post test of experimental group with respect to students' academic self-concept - reference based is found to be highly significant at 0.01 level.

The obtained 't' value 1.18 between pre and post-tests of control group in students academic self-concept reference based is not significant at both the levels i.e., 0.05 and 0.01. When post-test performance of students' academic self-concept - reference based is compared between experimental and control groups, the 't' value 8.67 is found to be highly significant at 0.01 level.

From the above results, it is concluded that the experimental group has gained significantly and also over The control group with respect to students' academic self-concept - reference based after the treatment. The students of teachers who are trained to offer higher levels of interpersonal skills and who provided highly facilitative climate in their class rooms showed significant improvement in their academic self-concept - reference based than that of control group.

The above results confirm that the treatment was found to be effective in study I and II in increasing the students' level of academic self-concept - reference based to a significant extent.

5 B.2.1.4 **Sense of control over performance:**

This aspect of students' attitude towards school is concerned with what extent students feel, can experience control over situations that affect them in school and willingness to take responsibility for their outcomes like grades, promotions etc. as against luck or fate. The following table furnishes a comparison between the mean scores of pre and post-test of experimental, control and experimental versus control groups in post-test.

STUDY - I

Table - 20 : Results of treatment on students' sense of control over performance.

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group	45	43.92	5.04	52.20	3.94	8.73**
2.	Control group	44	44.16	5.90	44.88	5.71	0.59NS
3.	Experimental Vs Control group				52.20 44.88	3.94 5.71	7.09**

** Significant at 0.01 level.
NS Not significant

Results:

The obtained 't' values indicate that the experimental group has gained significantly over pre-test and also over control group in students' sense of control over performance after the treatment. Therefore, it can be concluded that the treatment has helped the students of experimental group to enhance their level of control over situations that affect them at school, willingness to take responsibility for school outcomes, perception of ability as opposed to luck or fate, self-reliance etc.,

STUDY - II

Table - 21 : Results of treatment on students' sense of control over performance:

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group.	47	47.56	4.73	54.00	4.22	7.00**
2.	Control group	50	46.40	5.89	46.00	5.80	0.34NS
3.	Experimental Vs Control group				54.00 46.00	4.22 5.80	7.76**

** Significant at 0.01 level.
NS Not Significant

Results:

The obtained 't' value 7.00 between pre and post tests of experimental group is found to be highly significantly at 0.01 level with respect to students' sense of control over performance. The 't' value 0.34, between pre and post-tests of control group is found to be not significant at both the levels i.e. 0.05 and 0.01.

From the table it is observed that the difference (8.0) between the mean scores of experimental and control groups in post-test is significant at 0.01 level in favour of experimental group. This is evidenced by the obtained 't' value 7.76 which is highly significant at 0.01 level.

From the above results, it can be concluded that the experimental group has gained significantly, and also over control group with respect to students' sense of control over performance after the treatment. The students of teachers with higher level of humanistic orientation due to training, showed greater gain in students' sense of control over performance. The results of both the studies conclusively confirm that humanistic input programme has been effective in increasing the students' sense of control over performance.

5 B.2.1.5: **Instructional mastery:**

This aspect of school attitude measure is concerned with the students' actual report of skills they need to develop and organize in school life to succeed in school, ability to attend and concentrate on instructional tasks and self-evaluation. To compare the performance of students in pre and post tests of experimental, control and experimental versus control groups in post-tests, the 't' values are computed and presented in the following table.

STUDY - I

Table - 22 : Results of treatment on students' instructional mastery.

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group.	45	45.68	6.23	52.76	6.00	5.52**
2.	Control group	44	46.24	10.64	45.88	7.24	0.19NS
3.	Experimental Vs Control group				52.76 45.88	6.00 7.24	4.91**

** Significant at 0.01 level.
NS Not significant

Results:

The 't' values obtaines reveal that there is a significant difference between pre and post tests of experimental group and also between the post tests of experimental versus control groups. It can be inferred that the experimental group has gained significantly over pre-test and also over control group in post test. Therefore, it can be concluded that the students of experimental group increased their instructional skills significantly in terms of seeking and using feedback, attention and concentration on instructional tasks etc. It is evident that the treatment has helped the students to increase their level of instructional mastery to a significant extent.

STUDY - II

Table - 23 : Results of treatment on students' instructional mastery.

S Nc.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group.	47	49.92	4.05	55.80	3.85	7.25**
2.	Control group	50	47.44	4.55	46.96	6.24	0.44NS
3.	Experimental Vs Control group				55.80 46.96	3.85 6.24	8.38**

** Significant at 0.01 level.
NS Not significant

Results:

The difference between the mean scores (5.88) of pre and post tests of experimental group is found to be significant at 0.01 level. With respect to control group, the difference between the mean scores (0.48) of pre and post-test is found to be not significant at both levels i.e., 0.05 and 0.01. The difference between the mean scores (8.84) of experimental and control groups in post-test is found to be highly significant at 0.01 level in students' instructional mastery.

From the above figures, it is concluded that experimental group has gained significantly and also over control group in students' instructional mastery after the treatment. It seems the students of teachers who are trained in inter-personal skills exhibited a high level of instructional skills than the students of control group. Therefore, it can be concluded that the treatment has helped the students to increase their level of instructional mastery to a significant extent.

From the results of study I and II, it can be concluded that there is a positive effect of the treatment in enhancing the students' level of instructional mastery to a significant extent.

5 B.2.1.6: **Attitude towards school:**

The total score for students' attitude towards school is obtained by adding the scores of students' motivation for schooling, academic self-control-concept performance based, academic self-concept - reference based, sense of control over performance and instructional mastery. In order to compare the total score of the students' attitude towards school in pre and post-tests of experimental, control and experimental versus control group in post-test, the 't' values are computed and furnished in the following table.

STUDY - I

Table - 24 : Results of treatment on students' attitude towards school:

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group.	45	226.68	47.40	263.88	18.25	4.94**
2.	Control group	44	240.68	22.24	235.44	29.71	0.94NS
3.	Experimental Vs Control group				263.88 235.44	18.25 29.71	5.49**

** Significant at 0.01 level.
NS Not significant

Results:

From the obtained 't' values, it is evident that significant differences were found between pre and post-test of experimental group and also between the post-test of experimental and control groups with respect to students' attitude towards school. Therefore, one can conclude that the students of experimental group developed a significantly positive attitude towards school due to the effect of humanistic input programme.

STUDY - II

Table - 25 : Results of treatment on students' attitude towards school.

Sl. No.	Comparison	N	Pre-test Mean	Pre-test S.D.	Post-test Mean	Post-test S.D.	't' Value
1.	Experimental group.	47	249.28	12.44	277.84	10.40	12.14**
2.	Control group.	50	240.80	21.25	235.48	20.22	1.29NS
3.	Experimental Vs. Control group				277.84 235.48	10.40 20.22	12.91**

** Significant at 0.01 level.

NS Not Significant

Results:

The difference (7.98) between the mean scores of pre and post-tests of experimental group is found to be highly significant at 0.01 level (t = 12.14). With respect to control group, pre-test mean score is found to be greater than post-test mean score by 5.32 scores and this difference is not significant at both the levels i.e. 0.05 and 0.01 (t = 1.29). When the mean scores of experimental and control groups are compared in post-test, the difference 42.36, in favour of experimental group is significant at 0.01 level (t = 12.91).

From the above results it can be concluded that the experimental group has gained significantly and also over the control group in students' attitude towards school after the treatment. The students of teachers who received humanistic orientation training exhibited a high level of positive attitude towards school than the students of control group.

The treatment given is found to be effective in both the studies, in developing a significantly positive attitude towards school in the recipients of the input programme.

5 B.2.1.7 **Self-esteem of students:**

The second variable that is studied under personal growth of students is self-esteem. The self-esteem inventory is concerned with students' self-acceptance aspect of self-esteem. This measure is administered to get a global picture of self-respect and confidence of students. In order to find out the difference between the level of self-esteem in pre and post-test performance of experimental, control and experimental versus control group in post-test, the 't' values are computed and tabulated in the following table.

STUDY - I

Table - 26 : Results of treatment on self-esteem of students

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group.	45	25.96	2.09	30.28	2.07	9.91**
2.	Control group	44	25.68	3.73	25.60	4.38	0.09NS
3.	Experimental Vs Control group				30.28 25.60	2.07 4.38	6.50**

** Significant at 0.01 level
NS Not significant

Results:

Results show that the experimental group has gained significantly and also over control group in the self-esteem of students after the humanistic input. The treatment has helped the students to enhance their level of self-esteem in terms of self-acceptance, self-respect and self-confidence.

STUDY - II

Table - 27 : Results of treatment on self-esteem of students.

S No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental group.	47	25.80	1.30	29.76	1.82	12.20**
2.	Control group	50	25.48	5.15	26.00	1.79	0.68NS
3.	Experimental Vs Control group				29.76 26.00	1.82 1.79	10.3**

** Significant at 0.01 level.

NS Not significant

Results:

From the above results one can conclude that the students of experimental group increased their level of self-esteem significantly over the pre-test and also over the control group after the treatment. It seems the students of those teachers who received humanistic orientation training experienced more facilitative class room climate and in turn increased their level of self-acceptance and confidence than the students of control group.

Both the studies confirm that the given humanistic input facilitated a significant improvement in the self acceptance, self respect and self-confidence aspects of self esteem among experimentals.

5 B.2.1.8. **Students' perception of their teachers:**

This is the third dependent variable that is studied under personal growth of students. This inventory of teacher-pupil relationship measures the nature of relationship that exists between teacher and students and to what extent students perceive and experience the facilitative teacher behaviours characterized by warmth, respect, caring, ~~and~~ acceptance, empathic understanding and genuineness. To compare the mean scores of students' perception of their

teachers in pre and post-tests of experimental, control and experimental versus control groups in post-test the 't' values are computed and furnished in the following table.

STUDY - I

Table - 28 : Results of treatment on students' perception of their teachers:

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D.	Post-test Mean	Post-test S.D.	't' Value
1.	Experimental group	45	379.32	27.62	420.76	27.44	7.18**
2.	Control group	44	442.6	25.97	442.12	24.00	0.09NS
3.	Experimental Vs. Control group				420.76 442.12	27.44 24.00	3.93**

** Significant at 0.01 level.

NS Not significant.

Results:

The results indicate that there is a significant difference between pre and post-test performance of students in experimental, control and also between experimental versus control group in post-test with respect to students'

perception of their teachers. Therefore, it can be concluded that the experimental group has gained significantly and also over the control group in students' perception of their teachers after the experimental treatment. The treatment has helped the students to perceive higher levels of facilitative teacher behaviours i.e. empathic understanding, respect, genuineness and unconditional warmth. The humanistic orientation training given to teachers (treatment) might have helped the teachers to adopt highly facilitative teaching styles and in turn the students might have perceived and experienced higher levels of teachers' empathic understanding, respect, genuineness and unconditional warmth.

STUDY II

Table: 29: Results of treatment on students' perception of their teachers.

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D.	't' value
1.	Experimental Group	47	440.28	42.81	494.04	39.34	6.37**
2.	Control Group	50	378.52	28.35	378.36	25.19	0.02NS
3.	Experimental Vs Control Group				494.04 378.36	39.34 25.19	17.34**

** Significant at 0.01 level.
NS Not significant.

From the above figures, it is concluded that the experimental group has gained significantly and also over the control group in students' perception of their teachers after the experimental treatment. The treatment has helped the students to perceive and experience higher levels of facilitative teacher behaviours - empathic understanding, respect, genuineness and unconditional warmth. The humanistic orientation training (treatment) given to teachers might have helped them to adopt higher levels of humanistic interpersonal skills in their class rooms which in turn were perceived by their students.

The results of Study I and II conclusively confirm that the treatment has been effective in helping the students to perceive higher levels of facilitative humanistic teacher behaviours i.e., empathy, respect, genuineness and warmth.

5B 2.1.9: Sociometric Status of Students:

This is the last variable that is studied under personal growth of students. Based on the research evidence, sociometric status of students is considered as another dependent variable that is influenced by the independent variable i.e. humanistic orientation training. In order to study the degree to which individuals are accepted in a group, to discover interpersonal relations among the individuals and to

determine their sociometric status, sociometric scale is used. Sociometric status score is calculated by analysing sociomatrix. In order to compare the mean scores of sociometric status of students in pre and post-tests of experimental, control and experimental versus control groups in post-test, 't' values are computed and tabulated in the table underneath.

STUDY I

Table 30 : Results of treatment on sociometric status of students

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D.	Post-test Mean	Post-test S.D.	't' value
1.	Experimental Group	45	7.24	4.67	10.12	5.61	2.66*
2.	Control Group	44	9.12	4.43	9.20	4.26	0.08NS
3.	Experimental Vs Control Group				10.12 9.20	5.61 4.26	0.87NS

* Significant at 0.05 level.
NS Not significant.

Results:

The 't' value 2.66 between pre and post-test of experimental group with respect to sociometric status of students is found to be significant at 0.05 level. The experimental group has gained significantly in the sociometric status of students after the treatment. It

is evident that the humanistic treatment has helped the students of experimental group to improve their interpersonal relations and acceptance within their group.

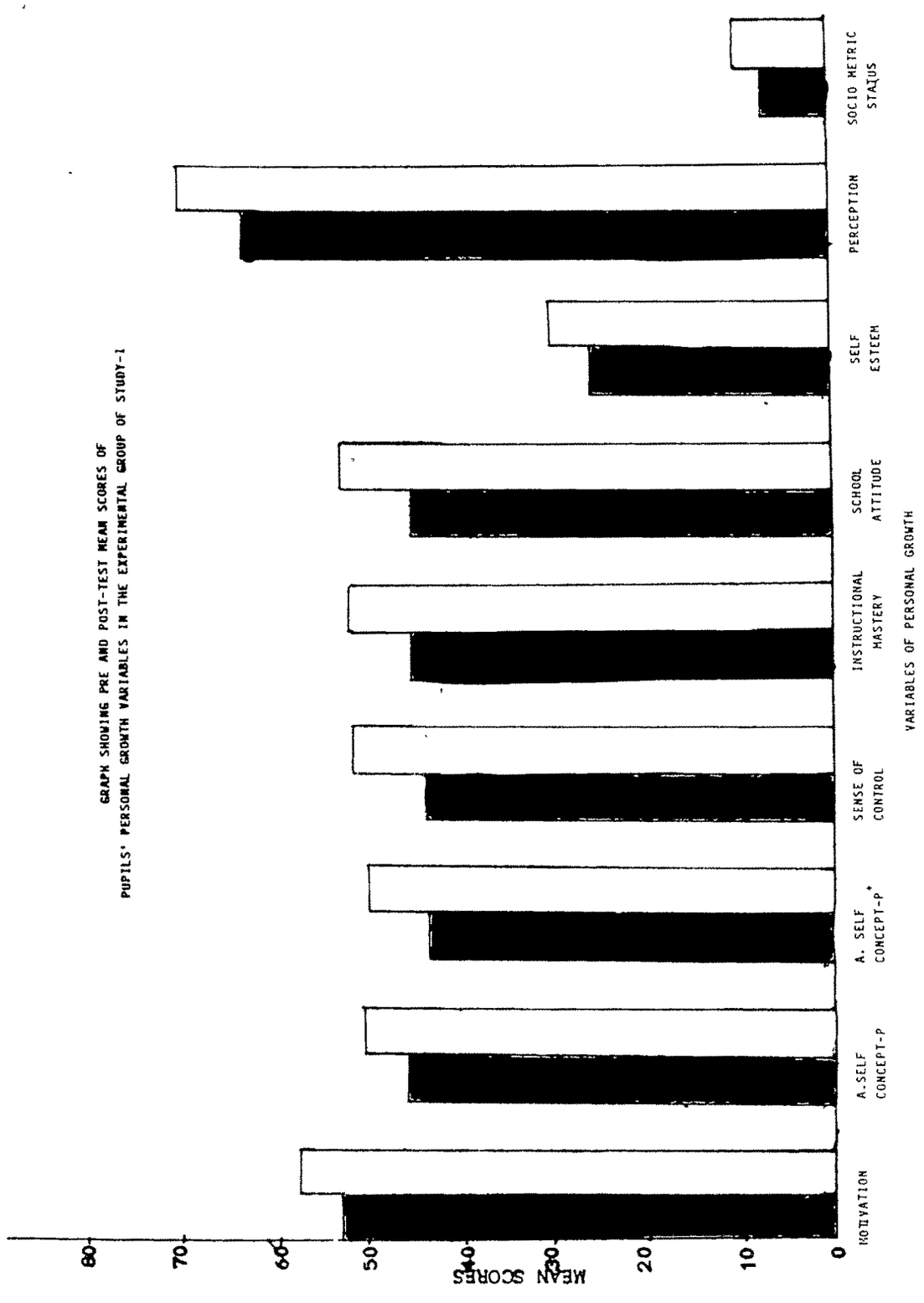
It is also worth noting that the experimental group could not gain significantly over the control group in students' sociometric status. Therefore, the treatment given has helped the experimental students to enhance their sociometric status significantly over the pretest, but could not gain over the control group.

STUDY II

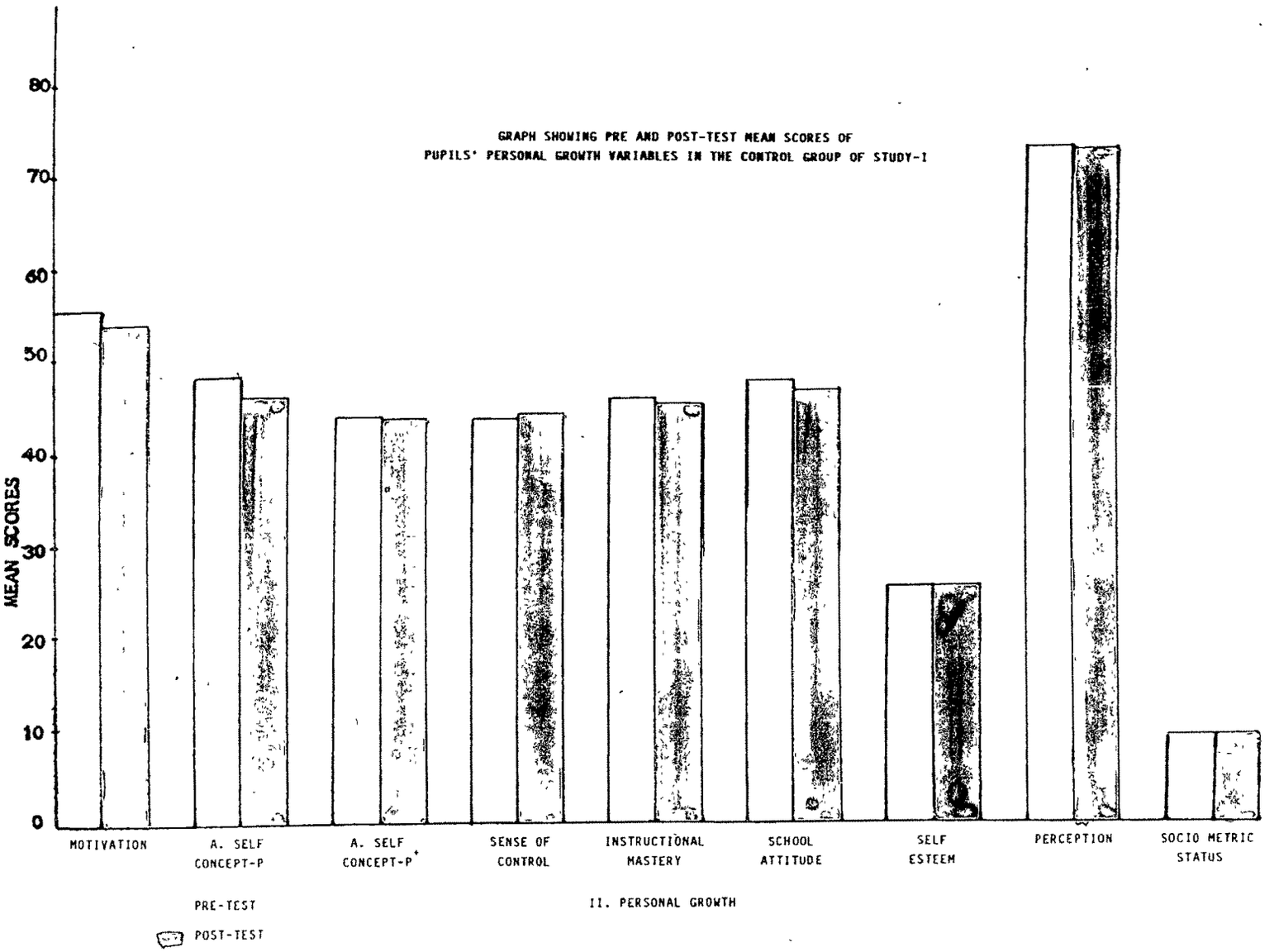
Table 31 : Results of treatment on sociometric status of students

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D.	't' value
1.	Experimental Group	47	8.8	5.16	9.84	4.89	1.01NS
2.	Control Group	50	8.4	3.76	8.32	3.78	0.11NS
3.	Experimental Vs Control Group				9.84 8.32	4.89 3.78	1.73NS

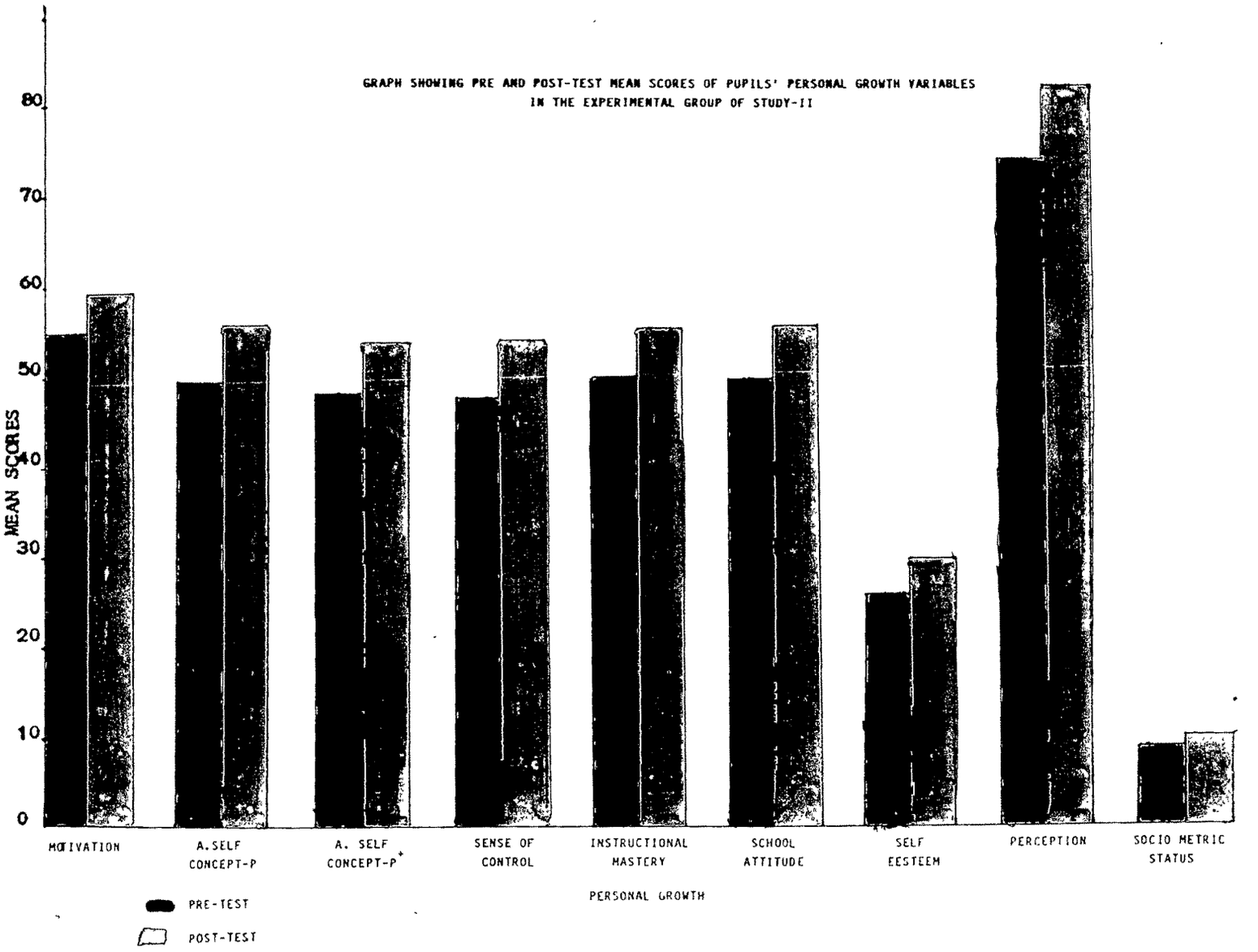
NS Not Significant.


GRAPH SHOWING PRE AND POST-TEST MEAN SCORES OF
PUPILS' PERSONAL GROWTH VARIABLES IN THE EXPERIMENTAL GROUP OF STUDY-I
MEAN SCORES
0
10
20
30
40
50
60
70
80
MOTIVATION
A.SELF CONCEPT-P
A. SELF CONCEPT-P*
SENSE OF CONTROL
INSTRUCTIONAL MASTERY
SCHOOL ATTITUDE
SELF ESTEEM
PERCEPTION
SOCIO METRIC STAIUS
VARIABLES OF PERSONAL GROWTH
PRE-TEST
POST-TEST

GRAPH SHOWING PRE AND POST-TEST MEAN SCORES OF
PUPILS' PERSONAL GROWTH VARIABLES IN THE CONTROL GROUP OF STUDY-I

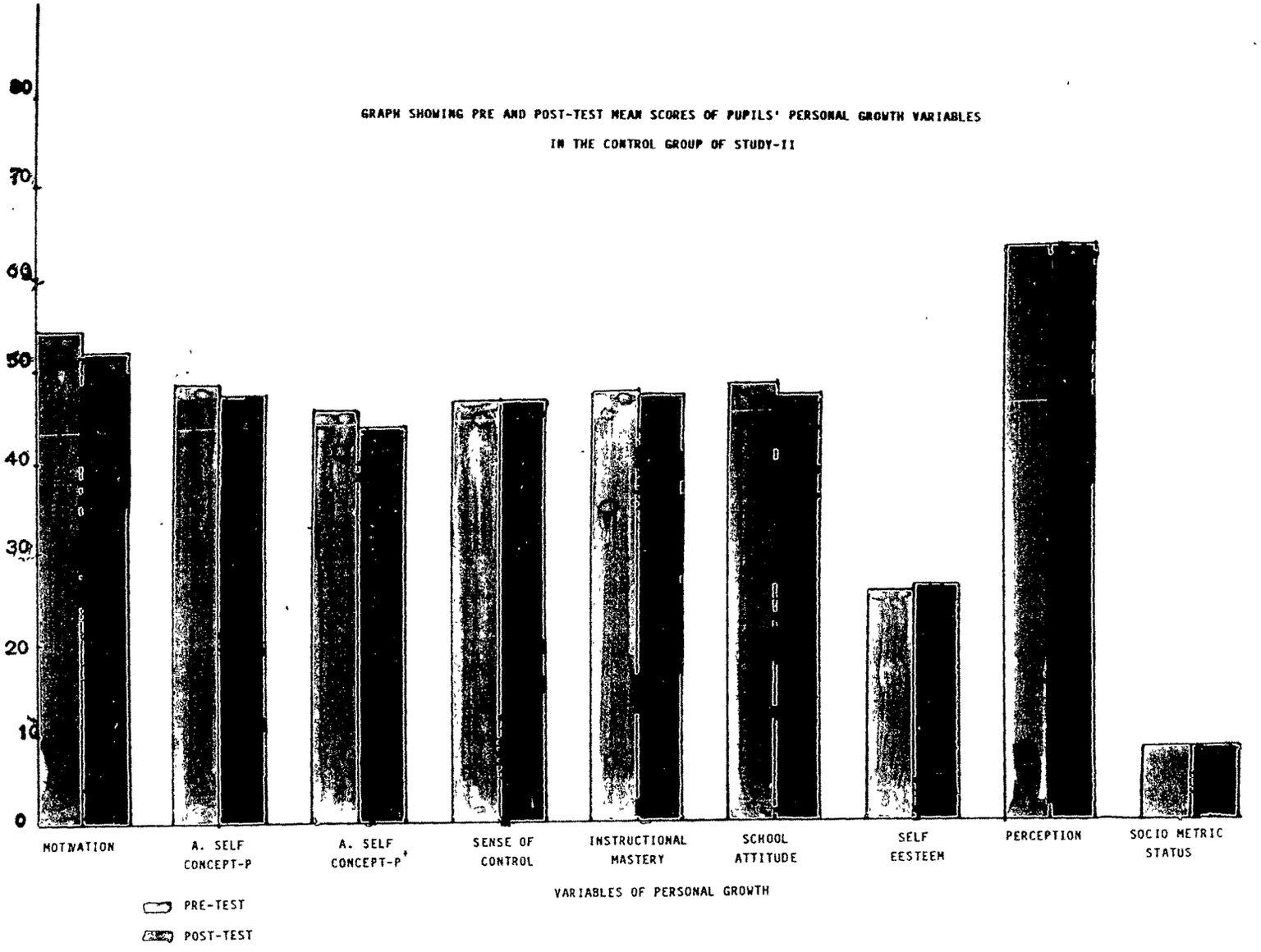


GRAPH SHOWING PRE AND POST-TEST MEAN SCORES OF PUPILS' PERSONAL GROWTH VARIABLES IN THE EXPERIMENTAL GROUP OF STUDY-II



GRAPH SHOWING PRE AND POST-TEST MEAN SCORES OF PUPILS' PERSONAL GROWTH VARIABLES

IN THE CONTROL GROUP OF STUDY-II



Results:

The 't' values 1.01, 0.11 and 1.73, between pre and post-tests of experimental, control and experimental versus control group in post-tests are found to be not significant at both the levels i.e., 0.05 and 0.01. Therefore, it is inferred that significant differences are not found in students' sociometric status between pre and post-tests of experimental, control and experimental versus control group in post-tests. It can be concluded that the treatment given to experimental group did not help the students to enhance their sociometric status.

It is worth noting that the humanistic orientation training given to teachers could not influence the sociometric status of students in experimental study II. But in the first study the experimental group gained significantly over pre-tests, but not over control group. Therefore, it is concluded that the humanistic treatment could not influence the sociometric status of students to a significant extent.

5B.2.1.10 : Differential effects of treatment on the sub-scales of School Attitude Measure:

The gain scores of the subscales of School Attitude Measure in experimental groups of Study I and II are subjected to ANOVA to study the differential effects

of treatment on motivation for schooling, academic self concept, both performance and reference based, students' sense of control over performance and instructional mastery. The following tables will present the results of ANOVA.

Table 32 : Comparison of gain scores betwen the sub-scales of School Attitudes Measures in experimental group.

S. No.	Source	Df.	S.S.	M.S.S.	'F'	S No.	Subscale	N	Mean	S.D.
1.	Between treatment	4	553.25	138.31	6.42**	1.	Motivation for schooling	45	4.04	4.21
2.	Error	220	4739.41	21.55		2.	Academic self-concept-performance based		4.60	3.70
3.	Total	224				3.	Academic self-concept-Reference based		6.40	4.74
						4.	Students' sense of control over performance.		8.28	5.19
						5.	Students' instructional mastery		7.08	4.95

** Significant at 0.01 level.

Results:

The obtained 'F' value, 6.42 is found to be significant at 0.01 level. It is inferred that there are significant differences between the gain scores of subscales of School Attitude Measure. It is understood that the treatment given has differential effects on the five personal growth variables namely, students' motivation for schooling, academic self-concept-performance based, academic self-concept-reference based, sense of control over performance and instructional mastery. It is noticed that the highest gain is seen in sense of control over performance and the lowest in motivation for schooling. It can be concluded that the treatment had differential effects on the five variables and the treatment has more effect on students' sense of control over performance, students' instructional mastery and least effect on Students' motivation for schooling.

Table 33.: Comparison of gain scores between the sub-scales of School Attitude Measures in experimental group

S. No.	Source	Df.	S.S.	M.S.S.	'F'	S. No.	Subscale	N	Mean	SD
1.	Between treatment	4	116.62	29.16	2.74*	1.	Motivation for schooling	47	4.40	4.54
2.	Error	230	2443.26	10.62		2.	Academic self-concept performance based	-	6.16	3.09
3.	Total	234	2559.88			3.	Academic self-concept-Reference based		5.68	2.46
						4.	Students' sense of control over performance		6.44	3.11
						5.	Students' instructional mastery		5.88	2.47

* Significant at 0.05 level.

Results:

From the figures of the above table, it is evident that the 'F' value 2.74 is significant at 0.05 level. It is therefore inferred that significant differences are found between the gain scores of sub-scales of School Attitude Measure. The humanistic treatment given has differential effects on students' motivation for schooling, academic self concept both performance and reference based, students' sense of control over performance and instructional mastery.

Reading through the tables, the 'F' values are found to be significant in the experimental groups of both the studies. Therefore, it is concluded that the treatment had influenced all the personal growth variables of school attitude measure i.e. motivation for schooling, academic self-concept both performance and reference based, students' sense of control over performance and students' instructional mastery and produced differential effects.

Both the studies showed highest gain in students' sense of control over performance and lowest in motivation for schooling. Therefore, it is conclusively confirmed that humanistic input programme has been effective in helping the students gain highest in sense of control over performance and lowest in motivation for schooling.

5B.2.1.11 : Overall observations and findings:

The analysis of data by 't' tests reveal that humanistic input programme has been effective in increasing significantly all the selected personal growth variables i.e., 1. students' attitude towards school, 2. self-esteem, 3. students' perception of their teachers except sociometric status of students. Perhaps, formation of new friendships and preferences require more time and may need long term experiments of humanistic orientation to show a significant change in the sociometric status of students.

The results of 'F' tests obviously confirmed that the humanistic input programme has produced significant and differential effects on students' motivation for schooling, academic self-concept both performance and reference based sense of control over performance and instructional mastery.

Among the five variables of school attitude measure, students gained highest in students' sense of control over performance and lowest in motivation for schooling as a consequence of humanistic orientation input programme.

5B.2.2.: Correlational Analysis:

The collected data were subjected to correlational analysis in order to study to what extent the pre-test scores in personal growth variables correlate with post-test scores with respect to experimental and control groups of study I and II. This analysis indicates the extent of relationship on one hand and also helps in drawing inference about the effect of humanistic input programme on the other. The following tables present the results of correlational analysis.

Table 34 : Correlation between pre-test and post-test scores of personal growth variables in experimental and control groups.

STUDY-I

S. No.	Variables	'r' Experimental group	'r' Control group
1.	Motivation for schooling	0.75 **	0.55 **
2.	Academic self-concept - performance based	0.75 **	0.44 **
3.	Academic self-concept - reference based	0.60 **	0.69 **
4.	Students' sense of control over performance	0.35 *	0.69 **
5.	Students instructional mastery	0.67 **	0.51 **
6.	Students' Attitude towards school	0.76 **	0.76 **
7.	Self-esteem	0.50 **	0.96 **
8.	Students' perception of their teachers	0.65 **	0.94 **
9.	Socio-metric status	0.95 **	0.97 **

** Significant at 0.01 level
* Significant at 0.05 level

Table 35 : Correlation between pre-test and post-test scores of personal growth variables in experimental and control groups.

STUDY II

S. No.	Variables	'r' Experimental group	'r' Control group
1.	Motivation for schooling	0.41 **	0.66 **
2.	Academic self-concept - performance based	0.66 **	0.71 **
3.	Academic self-concept - reference based	0.87 **	0.49 **
4.	Students' sense of control over performance	0.76 *	0.48 **
5.	Students instructional mastery	0.81 **	0.52 **
6.	Students' Attitude towards school	0.67 **	0.84 **
7.	Self-esteem	0.76 **	0.33 **
8.	Students' perception of their teachers	0.94 **	0.89 **
9.	Socio-metric status	0.88 **	0.96 **

** Significant at 0.01 level

* Significant at 0.05 level

Results :

Reading through the tables, it is observed that the correlation coefficients between pre and post test scores are found to be higher and also almost equal than that of control group with respect to most of the variables of Study I and II. But the mean gain scores

are significantly higher in experimental group and not in control group. That means the students of experimental group generally retaining their relative positions, the group as a whole moved to a higher level. But the students in control group had generally changed their relative positions without gaining anything as a group with regard to the variables of pre and post tests.

Therefore, it is concluded that the treatment has helped the students of experimental groups to have a uniform increase in the personal growth variables of students. Where as in the control group there has only been a random change in the measures.

5B.2.3 **Meta - Analysis:**

Meta analysis is the analysis of the results of empirical studies to integrate the results and arrive at over all conclusions. It is the 'analysis of analyses'. Glass (1976) coined the term meta analysis. The findings of seperate studies become the data for a synthesising meta analysis.

As mentioned earlier, the present study involves two parallel experimental studies, the results of the two studies are subjected to meta analysis to make an 'overall conclusion' regarding the effect of humanistic orientation input on some selected variables of personal and congnitive growth.

The 't' values are computed for the gain scores of experimental and control groups of study I and II and are further analysed and an overall 't' value for each variable is calculated using the 't' values of the two studies. Thus the combined meta-analysed 'Z' values are computed by using the following formula:

$$Z = \frac{t_1 + t_2.}{\frac{N_1}{N_1 - 2} + \frac{N_2.}{N_2 - 2.}}$$

The following tables present 't' values between the mean gain scores of experimental and control groups of study I and II.

Table - 36: Significance of difference between the mean gain scores of selected variables of personal growth in experimental and control groups of study - I

S.No.	Variable	Experimental group N	Mean gain	S.D	Control group N	Mean gain	S.D	't'
1.	Motivating for Schooling	45	4.04	4.21	44	-1.32	6.54	4.63**
2.	Academic self-concept performance based		4.60	3.70		-2.24	6.92	5.84**
3.	Academic self-concept refence based		6.40	4.74		-0.4	5.30	6.42**
4.	Students' sense of control over performance		8.28	5.19		0.72	4.56	7.34**
5.	Students' Instructional Mastery		7.08	4.95		-0.36	9.31	4.75**
6.	Students attitude towards school		37.2	35.67		-5.24	19.22	7.01**
7.	Self-esteem		4.32	2.07		-0.08	1.32	11.99**
8.	Perception of their teachers		41.44	22.98		-0.48	9.20	11.31**
9.	Sociometric status		2.88	1.84		0.08	1.13	8.68**

** Significant at 0.01 level.

Table - 37: Significance of difference between the mean gain scores of personal growth variables of students in experimental and control groups of study - II

S.No.	Variable	Experimental group N	Mean gain	S.D	Control group N	Mean gain	S.D	't'
1.	Motivating for Schooling	47	4.40	4.54	50	-2.28	4.61	7.22**
2.	Academic self-concept performance based		6.16	3.09		-1.08	4.21	9.65**
3.	Academic self-concept refence based		5.68	2.46		-1.48	6.36	7.26**
4.	Students' sense of control over performance		6.44	3.11		-0.40	5.97	7.05**
5.	Students' Instructional Mastery		5.88	2.47		-0.48	5.51	7.29**
6.	Students attitude towards school(Total score)		28.56	9.52		-5.32	11.84	15.49**
7.	Self-esteem		3.96	1.18		0.52	4.86	4.75**
8.	Perception of their teachers		53.76	14.46		-0.16	13.12	19.35**
9.	Sociometric status		1.04	2.51		-0.08	1.09	2.89**

** Significant at 0.01 level.

The following tables furnish the 't' values and the combined meta-analysed 'Z' values of the selected variables of personal growth with respect to study I and II.

Table 38 : 't' and the meta-analysed 'Z' values of the selected variables of personal growth

S. No.	Name of the Variable	Study-I N=45 Df=43 't'	Study-II N=47 df=45 't'	'Z'
1.	Motivation for schooling	4.63	7.22	8.89 **
2.	Academic self-concept - performance based	5.87	9.65	10.73 **
3.	Academic self-concept - reference based	6.42	7.26	9.46 **
4.	Students' sense of control over performance	7.34	7.05	9.95 **
5.	Students instructional mastery	4.75	7.29	8.33 **
6.	Students' Attitude towards school	7.01	15.49	15.66 **
7.	Self-esteem of students	11.99	4.75	10.89 **
8.	Students' perception of their teachers	11.31	19.35	21.20 **
9.	Socio-metric status of students	8.68	2.89	8.00 **

** Significant at 0.01 level

The above table brings out an overall effect of the treatment in experimental study I and II on the selected vaiables of personal growth.

Results:

In almost all cases the combined overall effect of the treatment is found to be significant at a higher level than the levels of significance in the individual cases of gain scores. The combined meta-analysed 'Z' values are higher than the individual 't' values of the gain scores indicating higher levels of significances.

The above statistical integration of the results of the two studies indicate that the given humanistic treatment is found to be effective in both the studies in enhancing the students' level of personal growth in terms of the selected variables i.e. students' motivation, academic self-concept both performance and reference based, sense of control over performance, instructional mastery, attitude towards school, self-esteem, students' perception of their teachers and sociometric status.

Although there is a significant gain in all the selected variables of personal growth due to the experimental treatment, students gained highest in their perception of their teachers' humanistic interpersonal skills and lowest in their sociometric status.

Highest gain in students' perception of their teachers can be accounted for the similarity of humanistic inputs i.e. empathy, genuineness, respect and

warmth in the training and the perception of the same in the behaviour of their teachers during experiment. When students perceive and experience higher levels of humanistic interpersonal skills, naturally they develop more positive attitude towards school, higher levels of self-esteem, perception of their teachers' humanistic interpersonal skills and sociometric status.

5B.2.4. Over all observations and findings:

From the detailed analysis of data by differential, correlational and meta analysis, it is evident that the teachers of experimental groups in both the studies who attained atleast a minimally facilitative level in their humanistic interpersonal skills due to the training and regular periodic feed back promoted more positive interactions in their class rooms.

The analysis of data by 't' tests revealed that the enhanced level of humanistic interpersonal skills of teachers led to significant increase in the personal growth of their students in terms of higher levels of motivation for schooling, academic self-concept both performance and reference based, sense of control over performance, instructional mastery, positive attitude towards school, self-esteem, perception of facilitative humanistic interpersonal skills of their teachers i.e. empathic understanding, respect, genuineness and warmth.

It is worth noting that the treatment could not increase the sociometric status of students to a significant extent.

The analysis of data by 'F' tests revealed that humanistic input programme has produced significant and differential effects on the subscales of school attitude measure i.e. students' motivation for schooling, academic self-concept both performance and reference based, sense of control over performance and instructional mastery. Among these variables, students gained highest in sense of control over performance and lowest in motivation for schooling. In other words the treatment given produced more positive effect on students' sense of control over performance and less positive effect on students' motivation for schooling.

The correlational analysis revealed that there is an uniform gain in all the variables of personal growth due to the given input programme.

From the meta analysis of data, it is evident that the statistical integration of the results of two studies i.e. the combined meta-analysed 'Z' values are found to indicate higher levels of significance than the individual 't' values. Even though the 't' values of pre-post experimental versus control groups are not significant with respect to sociometric status of

students in study II, the obtained 'Z' value indicated a high level of significance in the enhancement of their sociometric status after the treatment.

It is observed that preliminary analysis of data by 't' test alone did not lead to more reliable and valid results and necessitated further deeper analysis.

Humanistic orientation input programme is found to facilitate significant improvement in all the selected variables of personal growth. Among these variables students gained highest in students' perception of their teachers and lowest in sociometric status.

* * *

OBJECTIVE-4

To study the effect of humanistically oriented teachers on students' cognitive growth with respect to -

a) creativity and

b) academic performance.

5B.3. **Cognitive Growth :**

Cognitive growth of students is another dependent variable considered to be influenced by the independent variable i.e., humanistic orientation input programme. Under this variable, two sub variables, namely creativity and academic performance of students which are considered relevant for study are taken into consideration A comparative analysis of pre and post-test mean scores of experimental and control and experimental versus control group in post-test is made and the results are presented variable-wise.

5B.3.1 **Differential analysis:**

The data were subjected to 't' and 'F'tests to determine the significance of difference between pre and post-tests of experimental and control groups.

5B.3.1.1 **Creativity:**

The tool used to measure creativity was B.K. Passi's verbal tests of creativity. The tool consists of three sub-tests namely, (1)the seeing problems test, (2)the unusual uses test and, (3)the consequences test. Apart from these sub-tests a total score for creativity is obtained to arrive at the global measure of creativity.

5B.3.1.1 Students' sensitivity to see problems:

This sub-test of creativity is concerned with the students' sensitivity to see problems of common articles and measures the dimension of fluency. High score indicates high level of fluency, and low score indicates low level of fluency. The following table furnishes the comparison between the mean scores of pre and post-tests of experimental, control and experimental versus control group in post-test of Study I and II.

STUDY I

Table 39: Results of treatment on students' sensitivity to see problems

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental Group	45	32.24	12.09	41.40	12.86	8.50**
2.	Control Group	44	31.32	8.36	34.92	12.15	1.63 NS
3.	Experimental Vs Control Group				41.40 34.92	12.86 12.15	2.65*

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

Results:

From the statistical figures of the above table, it can be concluded that the experimental group has gained significantly and also over the control group with respect to students' sensitivity to see problems i.e., the fluency dimension of creativity, after the treatment.

It is therefore concluded that the humanistic treatment given to experimental group has helped the students to experience more free and secure class room climate which in turn might have facilitated to increase their fluency dimension of creativity to a significant extent.

STUDY II

Table 40: Results of treatment on students' sensitivity to see problems

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental Group	47	45.04	13.39	54.96	11.42	3.89**
2.	Control Group	50	29.64	7.69	33.00	8.65	2.06*
3.	Experimental Vs Control Group				54.96 33.00	11.42 8.65	10.77**

** Significant at 0.01 level.
* Significant at 0.05 level.

Results:

From the results of above table, it is concluded that the experimental group has gained significantly and also over the control group with respect to students' sensitivity to see problems after the treatment. It is confirmed that the treatment given has helped the students of experimental group to experience more facilitative class room climate than control group which in turn has enhanced their fluency dimension of creativity.

It is noticed that the students of control group also gained significantly even without the treatment. Although the gain is significant at 0.05 level, but is very low when compared to experimental group. Perhaps the gain in control group can be accounted for the influence of testing, maturity, etc.

From the results of study I and II, it is conclusively established that the humanistic input programme has been effective in increasing the students' sensitivity to see problems i.e. fluency dimension of creativity to a significant level.

5B.3.112 **Students' ability to perceive unusual uses:**

This sub-test of creativity measures the dimensions of fluency, flexibility and originality. The following table presents a comparison between the mean scores of pre and post-tests of experimental, control and experimental / versus control group in post-tests. For this purpose 't' values are computed and presented in the following table.

STUDY I

Table 41 : Results of treatment on students' ability to preceive unusual uses.

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental Group	45	25.52	15.65	48.84	17.36	5.82**
2.	Control Group	44	46.8	17.48	40.72	12.49	1.89 NS
3.	Experimental Vs Control Group				48.84 40.72	17.36 12.49	2.54*

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

Results:

From the above table, it is obvious that the experimental group has gained significantly and also over the control group in students' ability to perceive unusual uses after the humanistic input programme.

Hence it can be concluded that the treatment has been effective in enhancing the students level of creativity with respect to the dimensions of fluency, flexibility and originality to a significant extent.

It is quite natural that one can think freely and creatively in an understanding, friendly, free and positive class room climate. The above results bear proof that creativity can be triggered in a more humane climate.

STUDY II

Table 42: Results of treatment on students' ability to preceive unusual uses

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental Group	47	41.56	17.01	59.56	19.20	4.48**
2.	Control Group	50	29.36	15.55	24.36	11.00	1.87 NS
3.	Experimental Vs Control Group				59.56 24.36	19.20 11.00	11.22**

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

Results:

From the results of the above table one can conclude that the experimentalgroup has gained significantly and also over the control group in students' ability to perceive unusual uses i.e., fluency flexibilty and originality dimensions after the humanistic input programme. Therefore, it is concluded that the treatment has helped the students of experimental group to experience highly facilitative humanistic teacher behaviours- warmth, respect, openness, empathic understanding and realness which in turn have increased their creative thinking to a significant level.

The resluts of study II are in consonance with the results of study I, which conclusively confirm that humanistic inputprogramme has been effective in enhancing significantly the fluency, flexibility and originality dimensions of creativity among students.

5B.3.11.3 **Students' ability to perceive consequences:**

This test measures the dimensions of fluency, originality and creativity. Creativity score is obtained by adding the scores of fluency and originality. The following table brings out a comparison between the mean scores of pre and post-tests of experimental,control and experimental versus control in post-test.

STUDY I

Table 43: Results of treatment on students' ability to preceive consequences

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental Group	45	25.52	15.65	42.68	12.26	5.82**
2.	Control Group	44	39.96	12.88	47.48	18.34	2.24*
3.	Experimental Vs Control Group				42.68 47.48	12.26 18.34	1.55NS

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

Results:

From the obtained results, it can be concluded that there is a significant gain in post-tests of experimental group over pre-tests indicating the effect of treatment. It is evident that the students of experimental group exhibited a high level of fluency, originality and creativity in post-tests after the treatment.

The experimental group could not gain significantly over the control group. Perhaps the variables like creativity may require longer periods of time for their development.

It is observed that the control group has also gained in post-test even without treatment with respect to fluency, originality and creativity. This gain may be attributed to the fact that the students' level of creativity is already high in pre-test and over a period of seven months gap, students might have gained significantly in post-test but the gain is found to be very low when compared to experimental group.

STUDY II

Table 44: Results of treatment on students' ability to preceive consequences

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental Group	47	49.16	19.25	59.04	24.47	2.19*
2.	Control Group	50	33.28	15.41	39.28	14.81	1.99NS
3.	Experimental Vs Control Group				59.04 39.28	24.47 14.81	4.87**

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

Results:

From the results, it can be concluded that there is a significant gain in experimental group and also over control group after the treatment. It is quite obvious that the treatment has helped the students to increase their level of fluency, originality and creativity.

The results of both the studies confirm that the humanistic treatment has been effective in enhancing the fluency, originality and creativity dimensions to a significant extent.

5B.3.14 **Creative ability of students:**

In order to get a global picture of creativity, a total creativity score is also obtained by adding the scores of all the three verbal tests of creativity. To compare the mean scores between pre and post tests of experimental, control and experimental versus control in post-test, 't' values are computed and furnished in the following tables.

STUDY I

Table 45: Results of treatment on students' creative ability

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' value
1.	Experimental Group	45	97.72	35.56	134.56	34.51	5.02**
2.	Control Group	44	118.08	31.14	123.12	39.39	0.72NS
3.	Experimental Vs Control Group				134.56 123.12	34.51 34.39	1.57NS

** Significant at 0.01 level.
NS Not Significant

Results:

From the results, it is quite clear that the experimental group has gained significantly with the respect to students' level of creativity after the treatment. But it could not gain significantly over the control group.

Like the other verbal scales of creativity, the students of experimental group could not show their superiority over the control group with respect to their creative ability. Perhaps variables like creativity which are higher order mental abilities may require longer periods of humanistic treatment to gain over the control group.

STUDY II

Table 46: Results of treatment on students' creative ability

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D.	't' Value
1.	Experimental Group	47	135.76	44.78	173.56	50.25	3.87*
2.	Control Group	50	92.28	33.63	95.84	23.82	0.61NS
3.	Experimental Vs Control Group				173.56 95.84	50.25 23.82	9.87**

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

Results:

From the results, it is evident that the experimental group has gained significantly and also over the control group with respect to students' level of creative ability after the treatment. It can be concluded that the treatment given has helped the students to increase their level of creativity to a significant extent.

The results of both the studies collectively conclude that the humanistic input programme was found to facilitate the creative thinking of students to a significant extent.

5B.3.2 **Academic performance of students:**

This is another variable studied under cognitive growth which is expected to be influenced by the independent variable - the humanistic input programme. The terminal examination marks of students in all the curricular subjects are taken as a measure of academic performance. The total score is calculated by adding the marks obtained in all the academic subjects. The maximum score in academic performance is 600. To compare the mean scores of students' inpre and post-tests of experimental, control and experimental versus control group in post-test, 't' values are computed and tabulated in the following table.

STUDY I

Table 47: Results of treatment on students' academic performance

S. No.	Comparison	N	Pre-test Mean	Pre-test S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental Group	45	353.8	113.65	399.48	98.39	2.05*
2.	Control Group	44	341.04	63.87	334.32	57.64	0.52NS
3.	Experimental Vs Control Group				399.48 334.32	98.39 57.64	3.82**

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

Results:

From the statistical figures of above table, it is evident that the experimental group has gained significantly over pre-test and also over control group with respect to students' academic performance. Therefore, it can be concluded that the humanistic input has been effective in increasing the academic performance of students to a significant extent.

STUDY II

Table 48: Results of treatment on students' academic performance

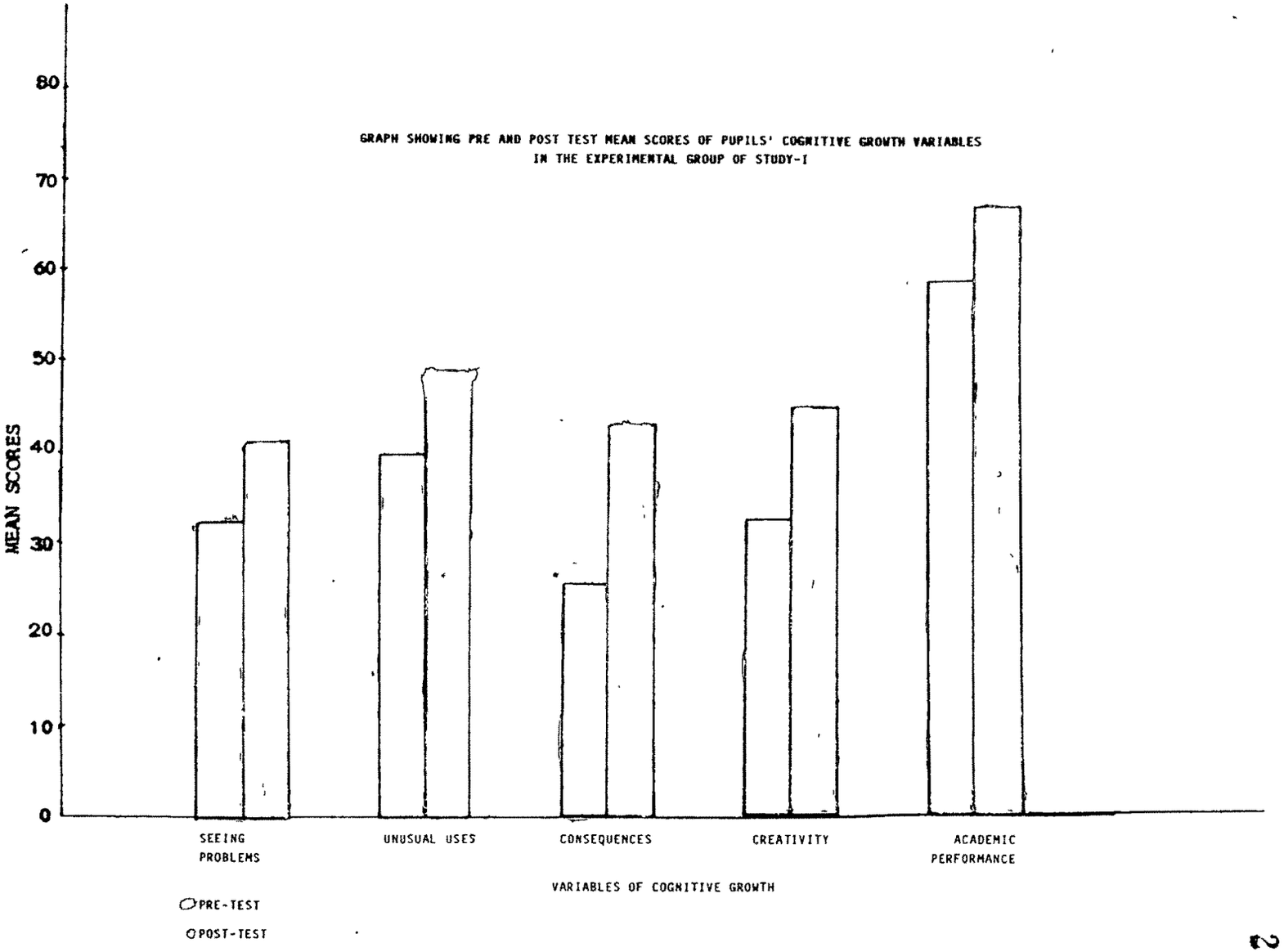
S. No.	Comparison	N	Pre-post Mean	Pre-post S.D	Post-test Mean	Post-test S.D	't' Value
1.	Experimental Group	47	375.28	80.08	409.72	64.03	2.32*
2.	Control Group	50	268.96	98.51	265.68	96.67	0.17NS
3.	Experimental Vs Control Group				409.72 265.68	64.03 96.67	8.64**

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

Results :

From the results of the 't' values, it can be concluded that experimental group has gained significantly and also over the control group with respect to students' level of academic performance after the treatment. The treatment given has helped the students to increase their academic performance significantly.

Both the studies conclusively confirm that humanistic input programme has been effective in increasing the academic performance of students to a significant level.


GRAPH SHOWING PRE AND POST TEST MEAN SCORES OF PUPILS' COGNITIVE GROWTH VARIABLES
IN THE EXPERIMENTAL GROUP OF STUDY-I
MEAN SCORES
80
70
60
50
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30
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10
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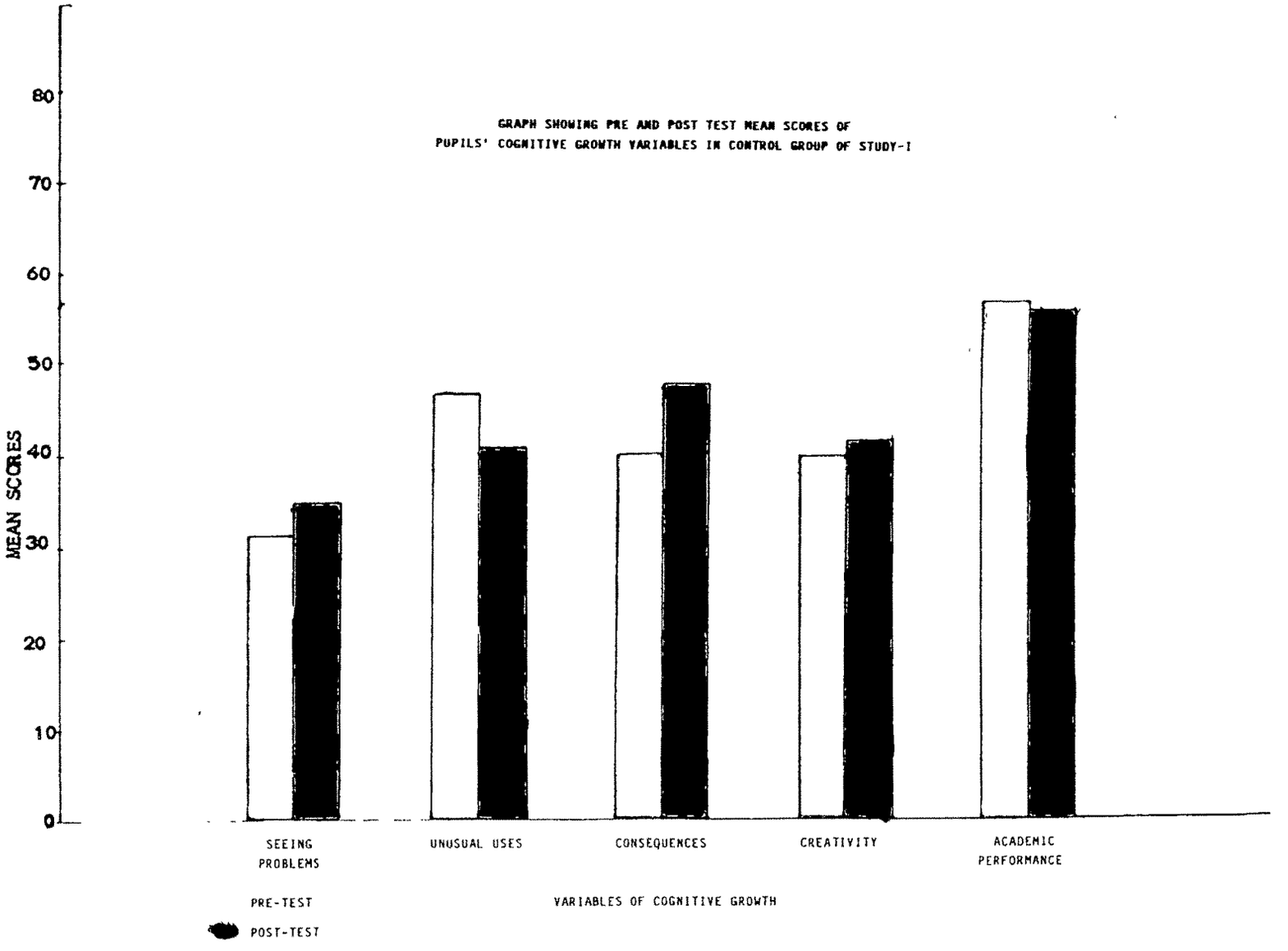
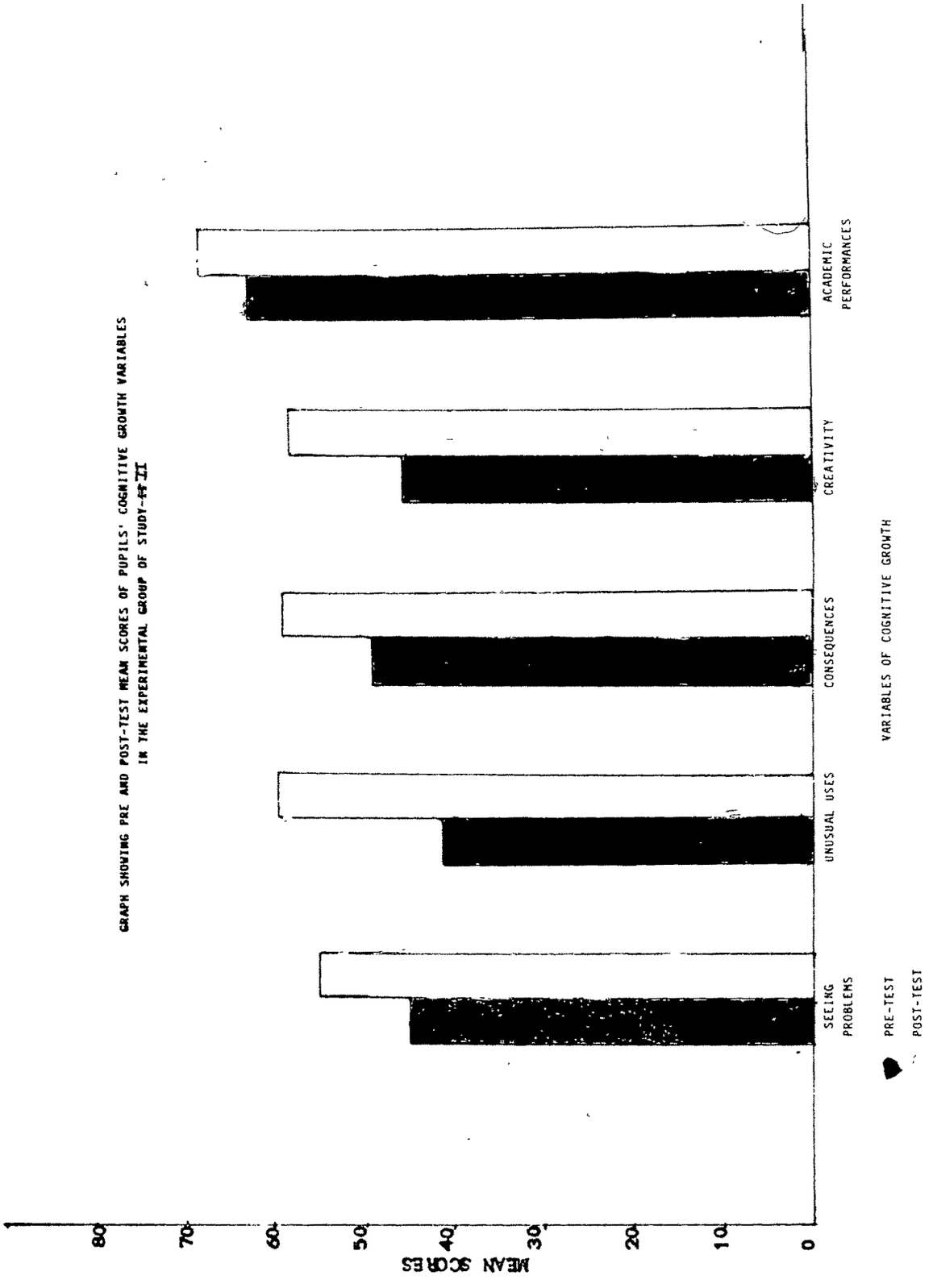
SEEING PROBLEMS
UNUSUAL USES
CONSEQUENCES
CREATIVITY
ACADEMIC PERFORMANCE
VARIABLES OF COGNITIVE GROWTH
PRE-TEST
POST-TEST

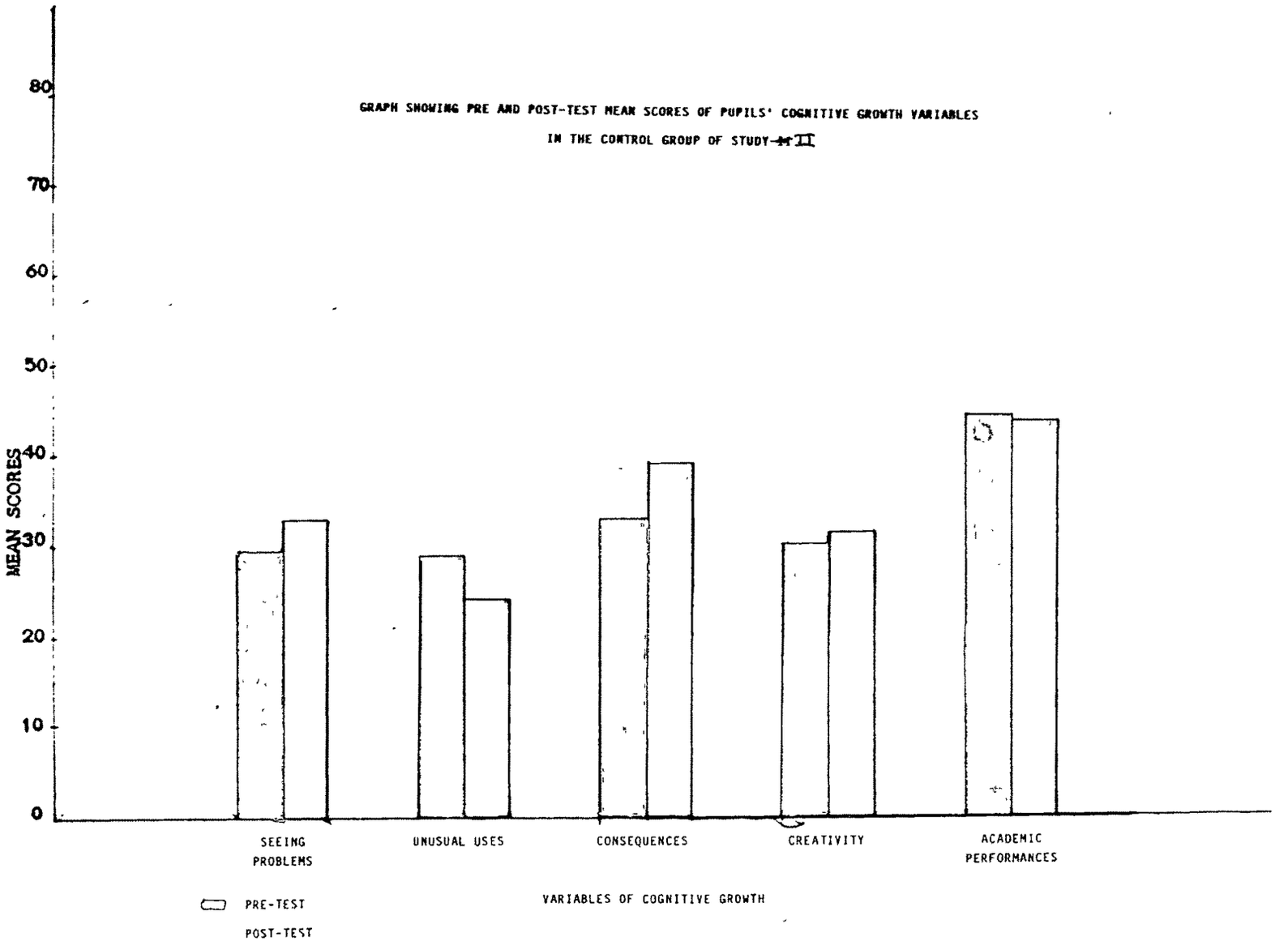
GRAPH SHOWING PRE AND POST TEST MEAN SCORES OF
PUPILS' COGNITIVE GROWTH VARIABLES IN CONTROL GROUP OF STUDY-I



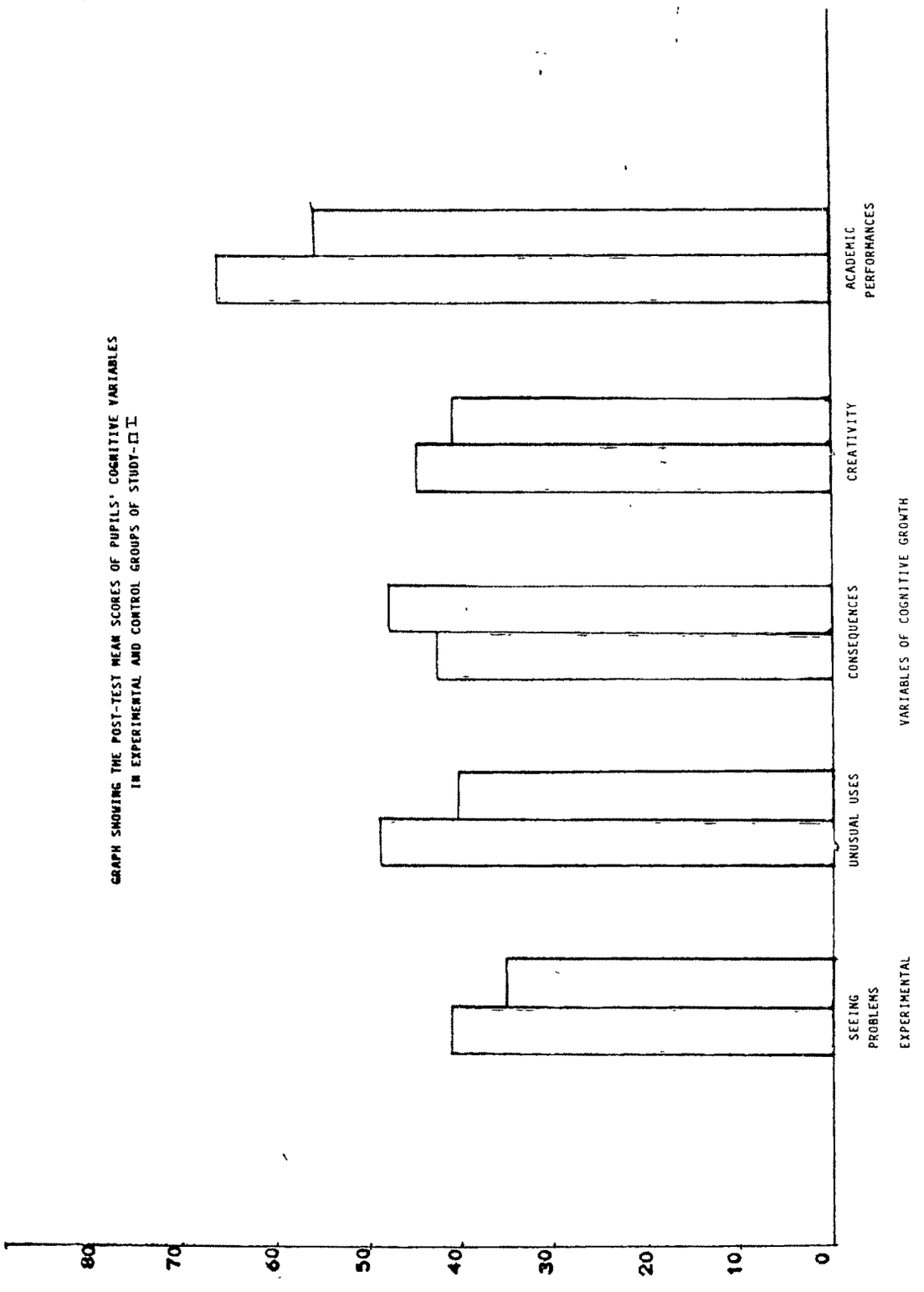
GRAPH SHOWING PRE AND POST-TEST MEAN SCORES OF PUPILS' COGNITIVE GROWTH VARIABLES IN THE EXPERIMENTAL GROUP OF STUDY-#II

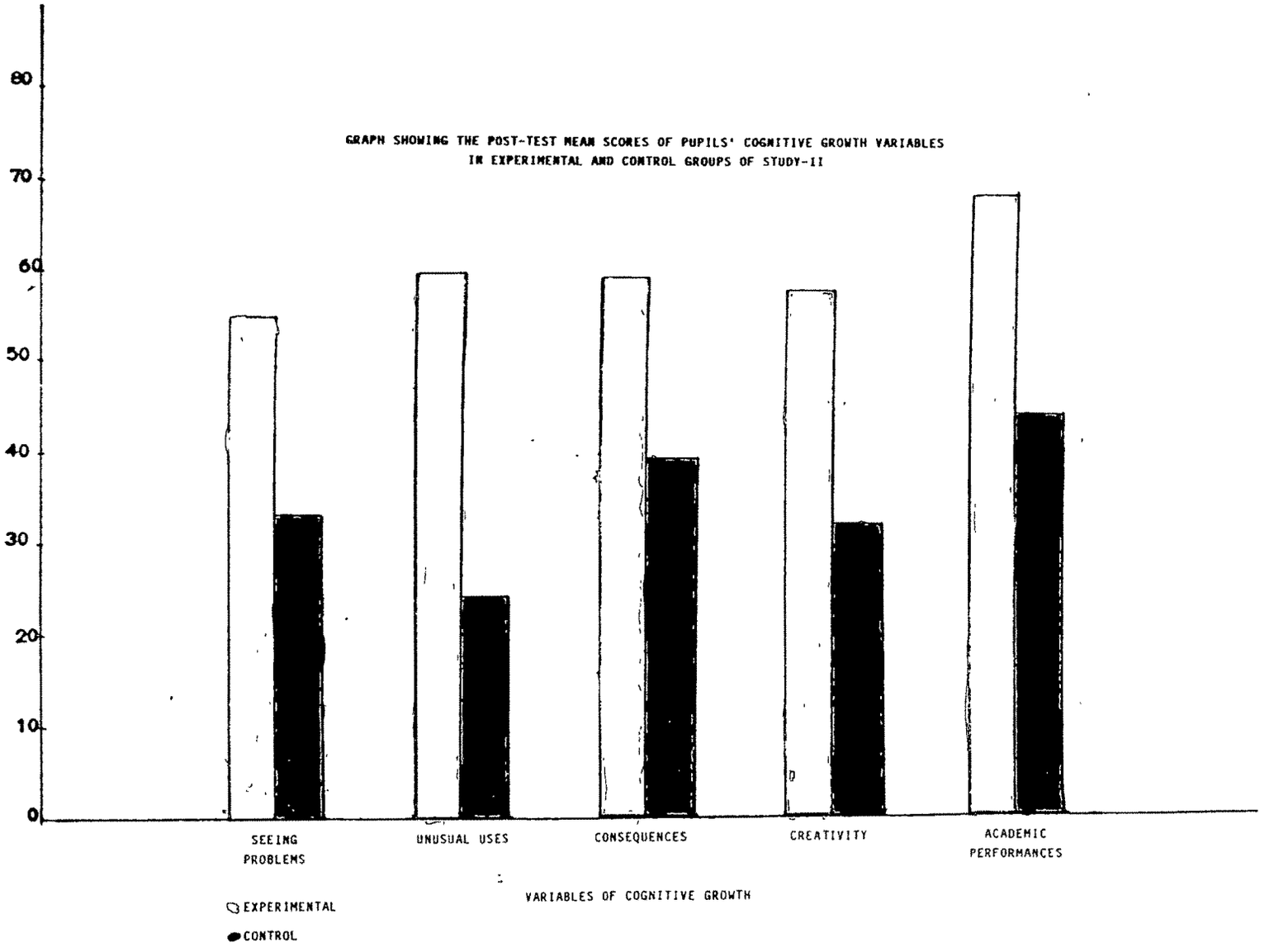


GRAPH SHOWING PRE AND POST-TEST MEAN SCORES OF PUPILS' COGNITIVE GROWTH VARIABLES IN THE CONTROL GROUP OF STUDY II



GRAPH SHOWING THE POST-TEST MEAN SCORES OF PUPILS' COGNITIVE VARIABLES IN EXPERIMENTAL AND CONTROL GROUPS OF STUDY-II




GRAPH SHOWING THE POST-TEST MEAN SCORES OF PUPILS' COGNITIVE GROWTH VARIABLES
IN EXPERIMENTAL AND CONTROL GROUPS OF STUDY-II
80
70
60
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40
30
20
10
0
SEEING PROBLEMS
UNUSUAL USES
CONSEQUENCES
CREATIVITY
ACADEMIC PERFORMANCES
VARIABLES OF COGNITIVE GROWTH
EXPERIMENTAL
CONTROL

5B.3.3. **Differential effects of treatment on the sub tests of creativity.**

The gain scores of the sub-tests of creativity are compared to find out the significance of difference between them in experimental groups of study I and II. To study the differential effects of treatment on seeing problems, unusual uses and consequences tests of creativity, the data were subjected to ANOVA.

STUDY I

Table:49 Comparison of the gain scores of the sub-tests of creativity in experimental group.

S. No.	Sub-test	N	Mean Gain	S.D	Source	df	S.S.	M.S.S.	'F'
1.	Seeing Problems	45	9.16	9.98	Between treatment	2	1989.55	994.78	
2.	Unusual Uses		8.88	10.61	Error	132	14129.13	107.04	9.29**
3.	Consequences		17.16	10.09	Total	134	16118.68		

** Significant at 0.01 level.

Results:

The obtained 'F' value 9.29 is found to be significant at 0.01 level. It is therefore inferred that the experimental treatment had produced significant differential effects on the three sub-tests of creativity namely, student's sensitivity to see problems which measure the dimension of fluency, student's ability to preceive unusual uses which measures all the three dimensions of creativity i.e., fluency, flexibility and originality and student's ability to preceive consequences which measures fluency and originality dimensions of creativity. It is understood that the humanistic input programme had maximum effect in increasing the students' ability to preceive consequences i.e., originality dimension of creativity.

STUDY II

Table:50 Comparison of the gain scores of the sub-tests of creativity in experimental group.

S. No.	Sub-test	N	Mean Gain	S.D	Source	df	S.S.	M.S.S.	'F'
1.	Seeing Problems	47	9.92	9.28	Between treatment	2	2055.82	1027.91	
2.	Unusual Uses		18.00	17.01	Error	138	34470.97	249.79	4.155*
3.	Consequences		9.88	18.92	Total	140	36526.79		

* Significant at 0.05 level.

Results :

As seen from the above table the 'F' value is found to be significant at 0.05 level. It is therefore concluded that the humanistic treatment produced differential effects on the three dimensions of creativity. The highest gain is seen in the sub-test of unusual uses which measures all the dimensions of creativity i.e., fluency, flexibility and originality.

From the results of Study I and II, it is concluded that the humanistic treatment had significant differential effect on the three dimensions of creativity i.e., fluency, flexibility and originality.

Both the studies confirmed that the students gained higher in originality and flexibility dimensions than the fluency as a consequence of the humanistic input programme.

5B.3.3.1 **Over all observations and findings:**

The results of 't' tests reveal that the humanistic input has been effective in enhancing the students' cognitive growth with respect to seeing problems, unusual uses and academic performance.

Although there is a significant gain over pre-tests in the experimentals of study I, they could not gain significantly over control group in consequences as well as total creativity.

Among the two cognitive growth variables, academic performance of students is found to be more influenced by the humanistic input programme than creativity. Perhaps the development of abilities like creativity may require more time for their development and also need longer duration of treatment than academic performance of students.

The results of 'F' tests further reveal that the humanistic treatment had differential effects on the three sub-tests of creativity, i.e., sensitivity to see problems, unusual uses and consequences.

A significantly highest gain is evidenced with respect to consequences and unusual uses tests of creativity. Therefore, it is confirmed that the humanistic treatment facilitated higher levels of students' flexibility and originality than the fluency dimension of creativity.

5B.3.4 **Correlational analysis:**

The variables of cognitive growth were subjected to correlational analysis to study ~~what~~ extent pre-test scores correlate with post-test scores with respect to experimental and control groups of study I and II. This analysis reveals the nature of change in the relative positions of students due to the effect of treatment with regard to experimental and control groups. The following tables furnish the results of correlational analysis.

Table 51: Correlation between pre and post-test scores of cognitive growth variables with respect to experimental and control groups.

STUDY I

S. No.	Variables	'r' value	
		Experimental Group	Control Group
I.	Creativity:		
1.	Seeing problems	0.68**	0.70**
2.	Unusual uses	0.80**	0.45**
3.	Consequences	0.76**	0.77**
4.	Creativity (total score)	0.94**	0.78**
II.	Academic performances	0.96**	0.89**

** Significant at 0.01 level.

Table 52: Correlation between pre and post-test scores of cognitive growth variables with respect to experimental and control groups

STUDY II

S. No.	Variables	'r' value Experimental Group	Control Group
I.	Creativity:		
1.	Seeing problems	0.73**	0.50**
2.	Unusual uses	0.59**	0.57**
3.	Consequences	0.65**	0.64**
4.	Creativity (total score)	0.74**	0.99**
II.	Academic performances	0.95**	0.99**

** Significant at 0.01 level.

Results:

The results of study I indicate that the correlation between pre and post-test scores of experimental group with respect to unusual uses, creativity (total score) and academic performance are found to be higher than that of control group. The correlation of rest of the variables i.e., seeing problems and consequences are found to be almost same in both experimental and control groups.

The results of study II are in consonance with study I. The correlations of experimental group with respect to seeing problems, unusual uses, consequences and creativity (total score) are found to be higher than that of control group. The correlation of the left over variable i.e., academic performance is found to be almost same in both experimental and control group.

It is observed that the correlation of pre and post-test scores are found to be higher in experimental than in control groups with respect to most of the variables of cognitive growth. But the results of differential and meta-analyses reveal that the experimental group has gained significantly over control group with respect to all the selected variables of cognitive growth. Although there is a significant gain over pre-tests, the students of experimental group by retaining their relative positions, the group as a whole moved to a higher level. But in control group the students generally changed their relative positions without gaining anything as a group.

The humanistic treatment given has helped the students of experimentals to have a uniform increase in the selected variables of cognitive growth. But the control group evidenced only a random change in the measure without gaining anything as a group.

5B.3.5 **Meta-analysis:**

As mentioned earlier, the results of two studies are combined to make an over all conclusion'of the effect of treatment on the varibles of cognitive growth. The 't' values are computed for the gain scores of experimental and control groups of study I and II and are further analysed and an overall 't' value i.e., the meta-analysed 'Z' values are computed.

The following tables furnish the mean gain scores, 't' values and the meta-analysed 'Z' values of the selected variables of cognitive growth with respect to Study I and II.

Table 53: Significance of difference between the mean gain scores of cognitive growth variables of students' in experimental and control groups of Study I.

S. No.	Variable	Experimental Group N	Mean gain	S.D	Control Group N	Mean gain	S.D	t'
1.	Seeing problems	45	9.16	9.98	44	3.6	8.63	2.82**
2.	Unusual uses		8.88	10.61		-6.08	16.33	5.17**
3.	Consequences		17.16	10.09		7.52	11.86	4.14**
4.	Creativity (total score)		36.84	12.26		5.04	22.12	8.46**
5.	Academic performance		45.68	33.07		-6.72	28.89	7.99**

** Significant at 0.01 level.

Table 54. Significance of difference between the mean gain scores of cognitive growth variables of students in experimental and control groups of study II.

S. No.	Variable	Experimental Group N	Mean gain	S.D	Control Group N	Mean gain	S.D	't'
1.	Seeing problems	47	9.92	9.28	50	3.36	8.20	3.71**
2.	Unusual uses		18.00	17.01		-5.00	13.02	7.54**
3.	Consequences		9.88	18.92		6.00	12.81	1.19NS
4.	Creativity (total score)		37.8	34.59		5.56	23.03	5.80**
5.	Academic performance		34.44	28.24		-3.28	13.16	8.56**

** Significant at 0.01 level.
NS Not Significant.

Table 55: 't' and the meta analysed 'Z' values of the selected variables of cognitive growth

S. No.	Name of the variable	Study I N=45 df=43 't'	Study II n=47 df=45 't'	'Z'
1.	Seeing problems	2.82	3.71	4.52**
2.	Unusual uses	5.17	7.54	8.79**
3.	Consequences	4.14	1.19	3.69**
4.	Creativity	8.46	5.80	9.86**
5.	Academic performance of students	7.99	8.56	11.45**

** Significance at 0.01 level.

From the 't' values of gain scores of study I and II and the combined meta-analysed 'Z' values, one could observe that individual 't' values are found to be significant at lower levels than the 'Z' values. The combined effect of results obtained in both the studies is found to be significant at a higher level.

From the meta-analysis of data, it is evident that the humanistic orientation input programme is proved to be effective in increasing the creativity and academic performance of students to a significant extent.

Although there is a significant gain in all the cognitive growth variables, the gain in academic performance is found to be at a higher level than creativity as a consequence of humanistic input programme.

5B.3.6 **PROFILE ANALYSIS**

In the present study, profile analysis has been applied to study the variables of attitude of students towards school, sociometric status and creativity in order to get more insight into the nature of the obtained profiles.

The data were subjected to profile analysis to test the following three hypotheses in pre and post-tests of experimentals belonging to study I and II.

1. Hypothesis of parallelness of profiles: Parallel profile reveals whether the mean profiles of the two groups are similar so that the line segments of adjacent tests are parallel. If it is the case, the slopes of the population profile segments are the same under each condition.

2. **Hypothesis of flatness of profiles:** It explains whether the population profiles are parallel and also at the same level.

3. **Hypothesis of equal treatment effects:** If the profiles do not depict flatness, at least one equality of mean does vary.

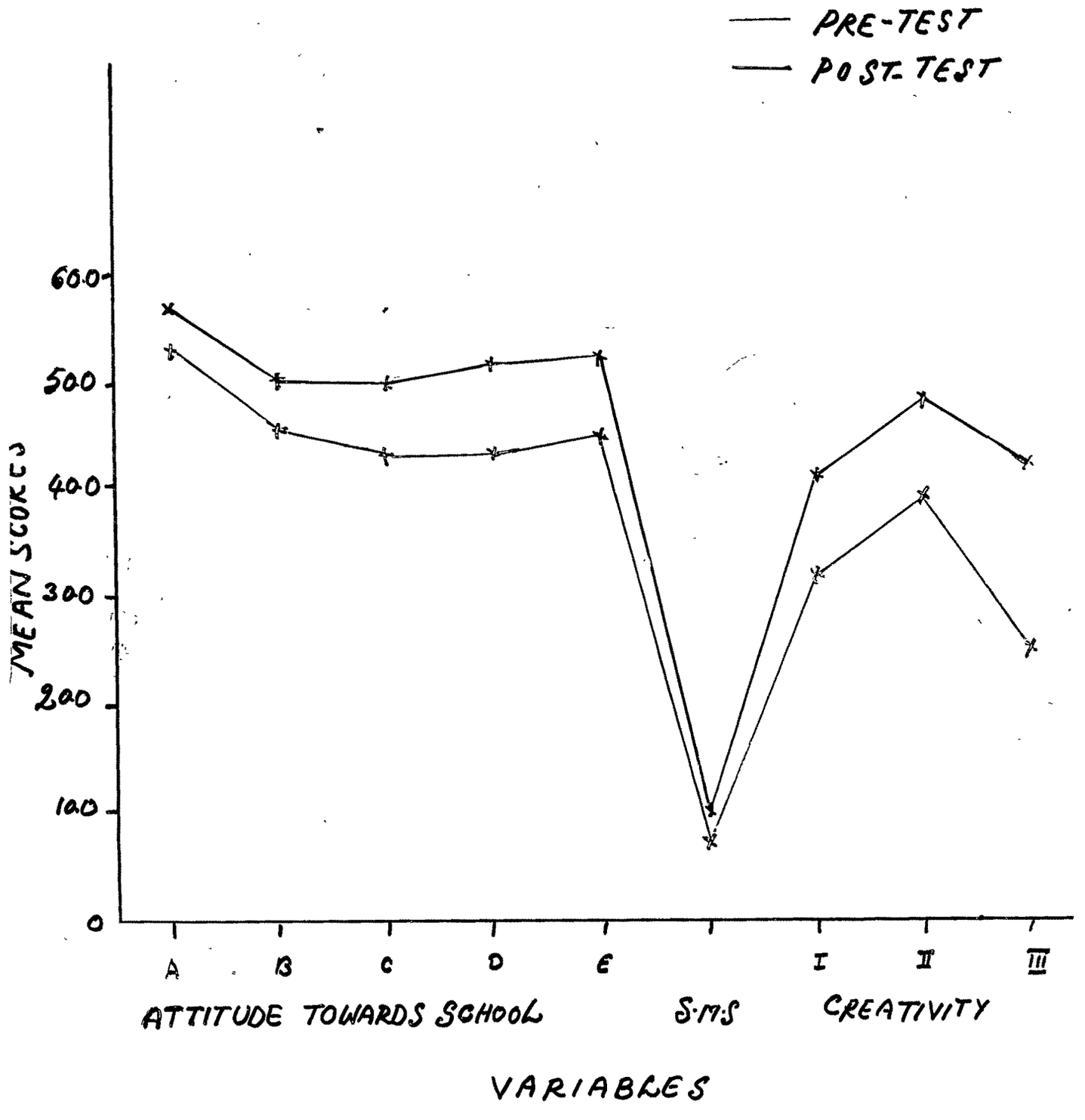
The three hypotheses of profile analysis in relation to nine variables — 1.Motivation for schooling, 2.Academic self-concept — performance based, 3.Reference based, 4.Sense of control over performance, 5.Instructional mastery, 6.Socio-metric status, 7.Seeing problems, 8.Unusual uses and 9.Consequences tests of creativity are tested and the results are presented in the following tables.

Table 56: Significance of difference between pre and post-test Profiles of the variables of students' attitude towards school, socio-metric status and creativity in experimental group.

S. No.	Variable	Pre-test (Mean)	Post-test (Mean)	'F' Parallel-ness	'F' Difference of level	'F' Test Main effects
1.	Motiviation for Schooling	53.56	57.60	1.72NS	2.98**	3.23**
2.	Academic self-concept - Performance based	46.12	50.72			
3.	Academic self-concept - Reference based	43.80	50.20			
4.	Students' Sense of Control over performance	43.90	52.20			
5.	Students' Instructional Mastery	45.68	52.76			
6.	Socio-metric Status	7.24	10.12			
7.	Seeing problems	32.24	41.40			
8.	Unusual Uses	39.96	48.84			
9.	Consequences	25.52	42.68			

** Significant at 0.01 level.
NS Not Significant.

GRAPH SHOWING PRE AND POST-TEST PROFILES OF EXPERIMENTAL GROUP IN STUDY I



Results:

In the present study the hypothesis of parallel profiles is tested by 'F' test. If the value of 'F' exceeds the tabulated value 2.05 (0.05 level), then the hypothesis of parallel profile is rejected. In this case with nine variables, the 'F' value works out to 1.72 (8, 81 df) indicating that the profiles are parallel. Therefore, the hypothesis is accepted. This reveals that the gain in all the variables of pre and post-test is more or less similar and uniform.

If the profiles are parallel then the flatness of the profile is tested. In this study the computed 'F' value 2.98 exceeds the tabulated 'F' value 2.633 (at 0.01 level). Hence the hypothesis that the profiles are at the same level is rejected. This indicates that the pre and post-test profiles are at different levels and the post-test profile is at a significantly higher level than pre-test profile.

The third hypothesis of equal treatment effects is tested to find out if there is any test main effects. In the present study the computed value of F = 3.23 exceeds the tabulated value of F = 2.71. Hence the hypothesis that there are no test main effects due to F' variables is rejected. This clearly indicates that there are test main effects and the humanistic treatment given produced differential effects on student's personal and cognitive growth variables. This can be seen graphically in post-test profile which is at a significantly higher level than pre-test profile.

Results:

The "F" value for nine variables is 1.87 (8,91 df) is found to be not significant at 0.05 level. Therefore, the hypothesis of parallelness is accepted. This reveals that the gain in all the variables of pre and post-test is more or less similar and uniform.

The computed "F" values for flantness of profiles is 3.28 which is found to be hihgly gignificant at 0.01 level. Hence the bypothesis that the profiles are at the same level is rejected. This shows that the pre and post-test profiles are at different levels and the post-test profile is at a a significantly higher level than pre-test profile.

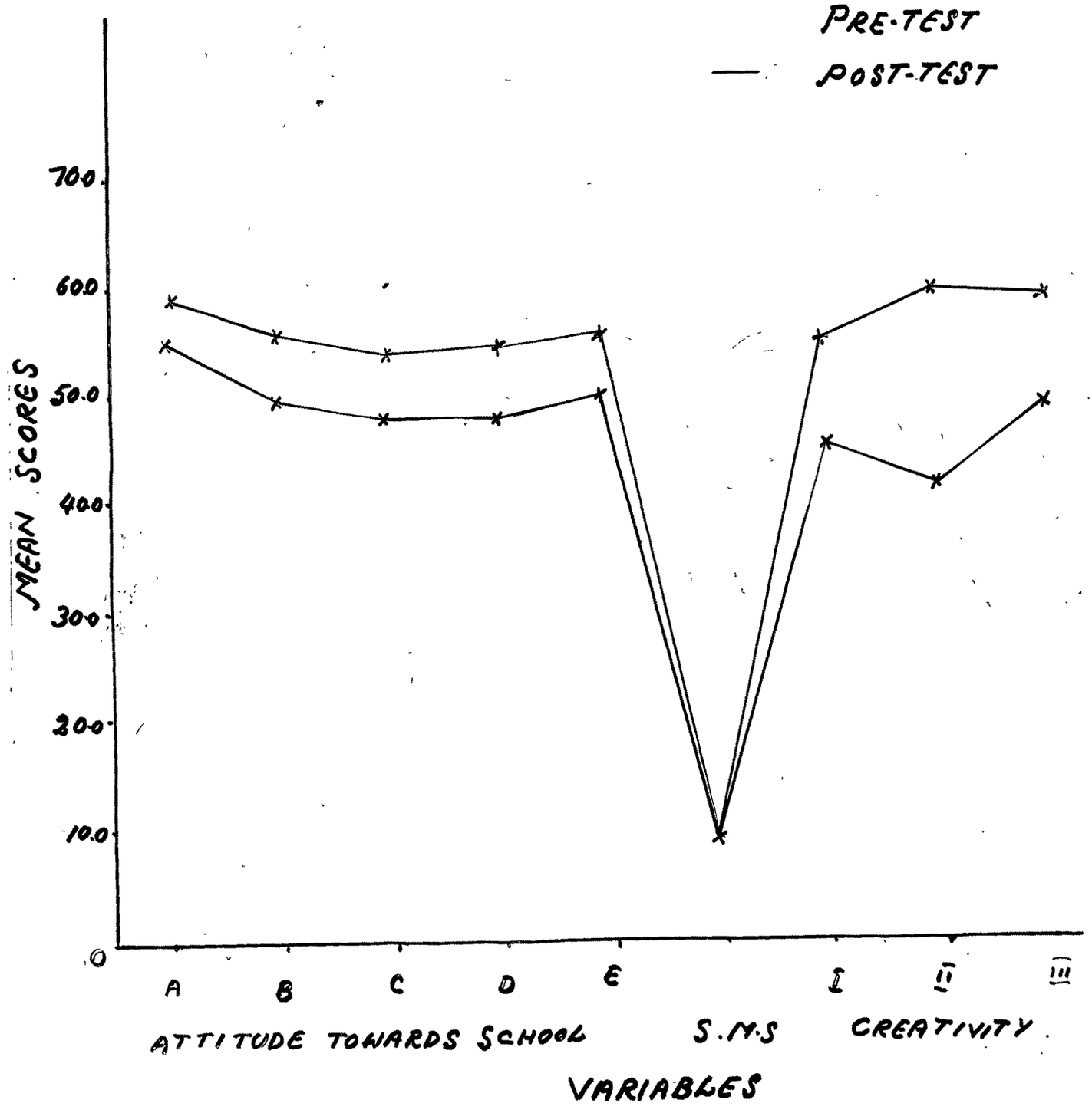
STUDY II

Table 57: Significance of difference between pre and post-test Profiles of the variables of students' attitude towards school, socio-metric status and creativity in experimental group.

S. No.	Variable	Pre-test (Mean)	Post-test (Mean)	'F' Parallel-ness	'F' Difference of level	'F' Test Main effects
1.	Motiviation for Schooling	54.60	59.00	1.87NS	3.28**	4.65**
2.	Academic self-concept - Performance based	49.32	55.48			
3.	Academic self-concept - Reference based	47.88	53.56			
4.	Students' Sense of Control over performance	47.56	54.00			
5.	Students' Instructional Mastery	49.92	55.80			
6.	Socio-metric Status	8.80	9.84			
7.	Seeing problems	45.04	54.96			
8.	Unusual Uses	41.56	59.56			
9.	Consequences	49.16	59.04			

** Significant at 0.01 level.
NS Not Significant.

GRAPH SHOWING PRE AND POST-TEST PROFILES OF EXPERIMENTAL GROUP IN STUDY II



The computed "F" value to test the hypothesis of equal treatment effects is 4.65 which is found to be highly significant at 0.01 level. Therefore, the hypothesis that there are no test main effects due to 'P' variables is rejected. This confirms that the humanistic input programme has been effective and significantly enhanced the level of students' motivation for scholing, academic self-concept performance and reference based, sense of control over performance, instructional mastery, sociometric status and the variables of creativity seeing problems, unusual uses and consequences.

Both the studies conclusively confirm that the gain in all the variables is more or less similar and uniform. Post-test profiles are found to be significantly at a higher level than pre-test profiles. There are test main effects due to 'P'variables. The treatment is found to be more effective in study II than in study I in enhancing the personal and cognitive growth of students to a significant level. It is also worth noting that the profiles of study I and II are found to be almost similar and uniform in their shape except the difference in their height. The profile of study II, is found to be comparatively at a higher level than study I indicating higher gain in all the above mentioned variables.

5B.3.7: Overall Observations And Findings:

The four fold analysis of data by differential correlational meta and profile analyses revealed that:

Humanistic input programme interms of enhanced level of humanistic orientation of teachers and the consequent raise of positive interactions in their class rooms ultimately resulted in significant improvement of students' congnitive growth with respect to creative ability (seeing problems, unusual uses and consequence) and academic performance.

Although the students in study I showed a significant improvement over pre-test performance in consequences test of creativity and total creativity, could not gain significantly over control group on par with study II. In wholistic treatments like humanistic input, it is difficult to arrive at one to one correspondence. However an obvious reason from the empirical data can be accounted for. The data in terms of teachers' discrimination indices and positive class room interactions revealed that the level of humanistic input received by the students of study I was found to be comparatively lesser than study II (Vide tables 7,9 and 13). Among the two congnitive growth variables,students gained more in academic performance than in creativity after the treatment (Differential analysis by 't' tests.

The effect of humanistic input programme, resulted in an uniform increase in the scores of students, with respect to creativity and academic performance (Correlational analysis).

The results of meta-analysis integrated the results of both studies and presented a gestalt picture that humanistic orientation treatment was effective in enhancing all the selected cognitive growth variables with respect to seeing problems, Unusual uses, consequences, total creative ability and academic performance of students to a significant extent. The gain in students' motivation for schooling, academic self-concept both performance and reference based, sense of control over performance, instructional mastery, sociometric status, seeing problems, unusual uses and consequences is found to be more or less similar and uniform.

Post-test profiles are found at a significantly higher level than pre-test profiles indicating that there are test main effects due to (P) variables. The given treatment was found to have more effect in the experimental students of study II than study I.

The nature of profiles are almost similar in both the studies depicting uniform gain in the selected variables. The post-test profile of study II is found to be at a higher level than the post-test profile of study I indicating that the students of study II gained more in the selected personal and cognitive growth variables than the students of Study I.

5.C. TESTING OF THE HYPOTHESES:

5.C. 1. Introduction:

The main objective of the present investigation is to study the effects of the facilitative humanistic class room climate created by the teachers through a systematic humanistic orientation training will lead to improvement in students' personal growth with respect to motivation for schooling, academic self-concept both performance and reference based, sense of control over performance, instructional mastery, attitude towards school, self-esteem, perception of their teachers, sociometric status and cognitive growth with respect to creativity and academic performance. In order to verify the stated hypotheses (vide chapter IV) the results of differential, profile and meta-analyses were used.

5.C. 2. PERSONAL GROWTH:

5.C.2.1. Hypothesis 1 (a):

THERE WOULD BE A SIGNIFICANT IMPROVEMENT IN THE PERSONAL GROWTH OF STUDENTS WITH RESPECT TO MOTIVATION FOR SCHOOLING AFTER THE HUMANISTIC ORIENTATION INPUT PROGRAMME.

This hypothesis was tested using the results of pre and post-tests, gain scores of experimental and control groups, and meta analysed 'Z' scores.

Table 58 : Results showing the significance of improvement in students' motivation for schooling.

S. No.	Analysis	Study I 't'	Study II 't'
I.	Differential:		
	Pre and post test scores of:		
1.	Experimental Group	3.36**	5.25**
2.	Control Group	0.92NS	2.07*
3.	Post-test scores of experimental Vs Control group	2.35*	8.48**
4.	Gain scores of experimental Vs control group	4.63**	7.22**
II.	Meta		'z' = 8.89**

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

The results reported in Section 5B, the 't' and 'Z' values presented in the above table reveal that there is a significant improvement in students' motivation for schooling in the experimental groups of both the studies. Although the difference between the mean scores of pre and post-tests in control group is significant at 0.05 level in study II, further deeper analysis in terms of post-test scores, gain scores and 'Z' scores confirm the significance of difference between the students' motivation for schooling with respect to pre-post tests and experimental versus control groups in favour of the experimentals.

Therefore the stated hypothesis 1(a) is accepted and hence retained.

It is ~~is~~ concluded that there is a significant improvement in students motivation for schooling after the humanistic orientation input programme.

5C 2.2&3 **HYPOTHESES - 1 (b) AND (c):**

There would be a significant improvement in the academic self-concept of students both Performance and reference based after the humanistic orientation programme.

These hypotheses were tested with the help of the results obtained in pre-post test and experimental versus control groups. The following table briefly furnishes the results reported in section 5B in terms of 't' and 'Z' values of study I and II.

Table 59: Results showing the significance of improvement in the self-concept of students both performance and reference based.

S. No.	Analysis	Self-concept Performance based Study I 't'	Self-concept Performance based Study II 't'	Self-concept Referenced based Study I 't'	Self-concept Referenced based Study II 't'
I.	Differential				
1.	Pre-post-test scores of experimental group	4.21**	7.96**	5.86**	5.80**
2.	Control group	1.66NS	1.01NS	0.29NS	1.18NS
3.	Post-test scores of Experimental Vs Control group	3.24**	9.98**	4.88**	8.67**
4.	Gain scores of Experimental control group	5.84**	9.65**	6.42**	7.26**
II.	Meta Analysis				
	Between Study I and Study II	'z'=10.73**		'z'= 9.46**	

** Significant at 0.01 level.
NS Not Significant.

From the results of the above table, it is evident that there is a significant difference between the performance of pre and post-test and experimental versus control groups with respect to students' self-concept both performance and reference based in Study I and II. It is noted that the meta-analysed 'Z' values are found to be highly significant than that the 't' values. Therefore, it can be established that there is a significant improvement in students' self concept both performance and reference based in the experimentals after the treatment.

Hence the stated hypotheses I (b) and (c) are accepted and retained.

It is therefore concluded that there is a significant improvement in students' academic self-concept based on their performance and reference group due to the given humanistic input.

5 C.2.4 **Hypothesis 1 (d):**

THERE WOULD BE A SIGNIFICANT IMPROVEMENT IN THE PERSONAL GROWTH OF STUDENTS WITH RESPECT TO SENSE OF CONTROL OVER PERFORMANCE AFTER THE HUMANISTIC ORIENTATION INPUT PROGRAMME.

This hypothesis was tested by using the results reported in Section 5B interms of 't' and 'Z' values and are presented in the following table.

Table 60: Results showing the significance of improvement in students' sense of control over performance

S. No.	Analysis	Study I 't'	Study II 't'
I.	Differential: pre and post-test scores of:		
1.	Experimental Group	8.73**	7.00**
2.	Control Group	0.59 NS	0.34 NS
3.	Post-test scores of Experimental Vs Control Group	7.09**	7.76**
4.	Gain scores of Experimental Vs Control Group	7.34**	7.05**
II.	Meta 'z' value		9.95**

** Significant at 0.01 level.
NS Not Significant.

The results indicate that all the 't' ratios in both the studies are found to be significant at 0.01 level.

Significant differences are found between the mean scores of pre-post-test, experimental versus control groups and gain scores of experimental and control groups in study I and II in favour of experimental groups. The meta-analysed analysed 'Z' value is found to be significant at 0.01 level.

Therefore the stated hypothesis 1 (d) is retained.

Hence it is concluded that teacher's enhanced level of humanistic orientation significantly improved students' sense of control over performance in terms of responsible freedom, willingness to take responsibility for school outcomes, perception of ability as opposed to luck or fate, self reliance etc.

5C.2.5 **Hypothesis 1 (e):**

THERE WOULD BE A SIGNIFICANT IMPROVEMENT IN THE PERSONAL GROWTH OF STUDENTS WITH RESPECT TO STUDENTS' INSTRUCTIONAL MASTERY AFTER THE HUMANISTIC ORIENTATION INPUT PROGRAMME.

This hypothesis was tested using the results reported in section 5B, the 't' and 'Z' values which are furnished in the following table.

Table 61 : Results showing the significance improvement in students' instructional mastery

S.No.	Analysis	Study I 't'	Study II 't'
I.	Differential :		
	pre-post test scores of :		
1.	Experimental Group	5.52**	7.25**
2.	Control Group	0.19 NS	0.44 NS
3.	Post-test scores of experimental Vs control group	4.91**	8.38**
4.	Gain scores of experimental vs control group	4.71**	7.29**
II.	Meta: 'z' value	8.33**	

** Significant at 0.01 level.
NS Not Significant.

Reading through the table, it is evident that the 't' ratios and 'Z' values are highly significant at 0.01 level, indicating that there exists significant differences in favour of experimental groups with respect to students' instructional mastery.

Therefore, the stated hypothesis 1 (e) is accepted.

It is concluded that students improved their instructional skills interms of seeking and using feed back, developing persistence and concentration in instructional tasks and evaluating their own work significantly after the humanistic orientation input programme.

5C.2.6 Hypothesis 1 (f) :

THERE WOULD BE A SIGNIFICANT IMPROVEMENT IN THE PERSONAL GROWTH OF STUDENTS WITH RESPECT TO ATTITUDE TOWARDS SCHOOL AFTER THE HUMANISTIC ORIENTATION INPUT PROGRAMME.

In order to test this hypothesis, the results of differential, profile and meta analyses were used. The computed 't', 'F' ratios, 'F' value of profile means and 'Z' values are furnished in the following table.

Table 62: Results showing the significance of improvement in students' attitude towards school.

S. No.	Analysis	Study I 't'	Study II 't'
I.	Differential:		
	Pre-post means of		
	1. Experimental Group	4.94**	12.14**
	2. Control Group	0.94NS	1.29NS
	3. Post-test means of experimental Vs control group	5.49**	12.91**
	4. Mean gain of experimental Vs control group	7.01**	15.49**
	5. Mean gains of sub-scales in experimental group 'F' value	6.42**	2.74*
II.	Profile:		
	Difference between pre and post-test mean profiles for the sub-scales of experimental groups.	'F'	'F'
	1. Parallelness	1.72NS	1.87NS
	2. Difference of level	2.98**	3.28**
	3. Test main effects	3.23**	4.65**
III.	Meta: 'Z' Value	15.56**	

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

The results indicate that there exist significant differences between pre and post and experimental versus control groups with respect to students 'attitude towards school. Experimental groups are found to excel pre-tests and control groups in their attitude towards school. The tabulated 'F' values of profile analysis reveal that the profiles are parallel, the profile of post- test is significantly at a higher level than that of test and there are test main effects due to 'P' variables. The 'Z' value is found to be highly significant at 0.01 level indicating a significant gain in both the studies.

Therefore the stated hypothesis 1 (f) is retained.

It is concluded that students of experimental groups developed significantly more positive attitude in terms of their interest, motivation, self-preceptions and structuring of perception of reality related to affective consequences of schooling after the humanistic orientation input.

5C.2.7 **HYPOTHESIS 1 (g):**

THERE WOULD BE A SIGNIFICANT IMPROVEMENT IN THE PERSONAL GROWTH OF STUDENTS WITH RESPECT TO SELF-ESTEEM AFTER THE HUMANISTIC ORIENTATION INPUT PROGRAMME.

This hypothesis was tested using the results of 't' and 'Z' values. The following table furnishes the results.

Table 63: Results showing the significance of improvement in students' self-esteem.

S. No.	Analysis	Study I 't'	Study II 't'
I.	Differential:		
	Pre-post means of		
1.	Experimental Group	9.91**	12.20**
2.	Control Group	0.09NS	0.68NS
3.	Post-test means of experimental Vs control group	6.50**	10.30**
4.	Mean gain of experimental Vs control group	11.99**	4.75**
II.	Meta:		
	'Z' Value	10.89**	

** Significant at 0.01 level.
NS Not Significant.

The results show that the 't' ratios are found to be significant at 0.01 level with resoect to experimental groups.

Significant differences in the performance are found in favour of experimental groups with respect to pre-tests and control groups.

The mean gain of experimental groups is found to be highly significant at 0.01 over control groups.

The 'Z' value which is highly significant at 0.01 level helped to reach over all conclusion of the results obtained in study I and II.

Therefore, the stated hypothesis 1 (g) in the light of the above results is retained.

It is concluded that there is a significant improvement in students' self-esteem in terms of accepting themselves, developing more positive self-concept and perception of themselves as competent and assertive individuals after the humanistic orientation input programme.

5C.2.8 **HYPOTHESIS 1 (h):**

THERE WOULD BE A SIGNIFICANT IMPROVEMENT IN THE PERSONAL GROWTH OF STUDENTS WITH RESPECT TO STUDENTS' PERCEPTION OF THEIR TEACHERS AFTER THE HUMANISTIC ORIENTATION INPUT PROGRAMME.

In order to test the hypothesis, the results reported in Section 5B, the 't' and 'Z' values were used. The following table presents the 't' and 'Z' values.

Table 64: Results showing the significance of improvement in students' perception of their teachers

S. No.	Analysis	Study I 't'	Study II 't'
I.	Differential:		
	Pre-post means of		
1.	Experimental Group	7.18**	6.37**
2.	Control Group	0.09NS	0.02NS
3.	Post-test means of experimental Vs control group	3.93**	17.43**
4.	Mean gain of experimental Vs control group	11.31**	19.35**
II.	Meta:		
	'Z' Value	21.20**	

** Significant at 0.01 level.
NS Not Significant.

From the table, it is evident that the 't' values interms of pre-post, experimental versus control group comparisons are found to be highly significant at 0.01 level. The 'Z' value to integrate both the studies is found to be highly significant at 0.01 level.

Significant differences are found between pre-post and experimental versus control groups with respect to students' perception of their teachers in favour of experimental groups.

In the light of the above results, the stated hypothesis 1 (h) is retained.

It is concluded that the students of experimental groups perceived more facilitative behaviours with regard to empathy, respect, warmth and genuineness in their teachers as a consequence of humanistic orientation training given to their teachers.

5C.2.9. **HYPOTHESIS 1 (i):**

THERE WOULD BE A SIGNIFICANT IMPROVEMENT IN THE PERSONAL GROWTH OF STUDENTS WITH RESPECT TO STUDENTS' SOCIOMETRIC STATUS AFTER THE HUMANISTIC ORIENTATION INPUT PROGRAMME.

The hypothesis was tested using the results of differential profile and meta analysis as reported in Section 5B. The table beneath presents the computed 't', 'F' and 'Z' values.

Table 65: Results showing the significance of improvement in students' sociometric status.

S. No.	Analysis	Study I 't'	Study II 't'
I.	Differential: Pre-post means of		
	1. Experimental Group	2.66**	1.01NS
	2. Control Group	0.08NS	0.11NS
	3. Post-test means of experimental Vs control group	0.87NS	1.73NS
	4. Mean gain of experimental Vs control group	8.68**	2.89**
II.	Profile:		
	Difference between pre and post-test mean profiles for experimental groups.	'F'	'F'
	1. Parallelness	1.72NS	1.87NS
	2. Difference of level	2.98**	3.28**
	3. Test main effects	3.23**	4.65**
III.	Meta:		
	'Z' Value	8.00**	

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

Results indicate that except in study I the 't' values are found to be not significant at both the levels in terms of pre-post, post test experimental versus control groups. But when the mean gains of experimental versus control groups are compared, 't' values are found to be significant at 0.01 level in both the studies.

Further deeper analysis of data helped the researcher to arrive at more reliable results. The 'F' ratio of pre and post test profile means and the meta analysed 'Z' values are found to be highly significant at 0.01 level. Significant differences were found between the socio-metric status of experimentals in comparision with pre-test and control group performance.

Therefore, the above hypothesis 1(i) is retained.

It is concluded that the experimentals who experienced higher levels of humanistic facilitative conditions ie., empathic understanding, warmth, genuine-ness and respect in their class-rooms showed more liking among themselves and improved their inter personal relations and enhanced their level of socio-metric status to a significant extent after the input.

5C.3 COGNITIVE GROWTH:

5C.3.1 Hypothesis 2(a):

THERE WOULD BE A SIGNIFICANT IMPROVEMENT IN THE COGNITIVE GROWTH OF STUDENTS WITH RESPECT TO THEIR CREATIVE ABILITY AFTER THE HUMANISTIC ORIENTATION INPUT PROGRAMME.

The hypothesis was tested by using the results of 't', 'F', 'F' of profile means and the meta analysed 'Z' values. The table beneath furnishes the results.

Table 66: Results showing the significance of improvement in students' cognitive growth with respect to creative ability.

S. No.	Analysis	Study I 't'	Study II 't'
I.	Differential: Pre-post means of :		
	1. Experimental Group	5.02**	3.87**
	2. Control Group	0.72NS	0.61NS
	3. Post-test means of experimental Vs control group	1.57NS	9.87**
	4. Mean gain of experimental Vs control group	8.46**	5.80**
	5. Mean gains of sub-scales of creativity 'F' Value	9.29**	4.12*
II.	Profile:		
	Difference between pre and post-test mean profiles for the sub-scales of creativity in experimental groups.	'F'	'F'
	1. Parallelness	1.72NS	1.87NS
	2. Difference of level	2.98**	3.28**
	3. Test main effects	3.23**	4.65**
III.	Meta: 'Z' Value	9.86**	

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

From the table, it is evident that all the 't' values except in study I in comparision with post-test means of control groups, are highly significant at 0.01 level. The 'F', the 'F' of profile means and the 'Z' values are found to be highly significant at 0.01 level.

Significant differences are found between pre, post performance of experimental and mean gains of experimental versus control groups in favour of experimental groups with respect to the creative ability of students.

Therefore, the hypothesis 2(a) is accepted and retained.

This study reveals that students of experimental groups showed a significant improvement in their creative thinking in terms of fluency, flexibility and originality after the humanistic orientation input.

5C.3.2 **Hypothesis 2(b):**

THERE WOULD BE A SIGNIFICANT IMPROVEMENT IN THE COGNITIVE GROWTH OF STUDENTS WITH RESPECT TO ACADEMIC PERFORMANCE AFTER THE HUMANISTIC ORENTATION INPUT PROGRAMME.

The hypothesis was tested using the results of 't', 'F', 'F' of profile means and 'Z' values. The following table furnishes the results.

Table 67: Results showing the significance of improvement in the academic performance of students

S. No.	Analysis	Study I 't'	Study II 't'
I.	Differential:		
	Pre-post means of :		
1.	Experimental Group	2.05*	2.32*
2.	Control Group	0.52NS	0.17NS
3.	Post-test means of experimental Vs control group	3.82**	8.64**
4.	Mean gain of experimental Vs control group	7.99**	8.56**
II.	Meta		
	'Z' Value	11.45**	

** Significant at 0.01 level.
* Significant at 0.05 level.
NS Not Significant.

The results indicate that there are significant differences in favour of experimental groups. The meta analysed 'Z' value which is significant at 0.01 level, helped to reach over all conclusion of the results in study I and II.

Therefore, the hypothesis 2(b) is accepted and reatined.

It is conluded that students showed a significant improvement in their academic performance after the humanistic orientation input programme.

5C.4. OVER ALL OBSERVATIONS AND FINDINGS

The stated hypotheses with respect to selected variables of personal and cognitive growth are verified in the light of the results obtained through differential profile and meta analyses.

All the stated hypotheses were proved based on the results obtained and therefore retained.

The humanistic orientation input programme led to significant improvement in students' personal growth with respect to motivation for schooling, academic self-concept performance and reference based, sense of control over performance, instructional mastery, attitude towards school, self esteem, perception of teachers and sociometric status.

The input programme was also resulted in significant improvement of students' cognitive growth with respect to creative ability and academic performance.

5.2 CONCLUSION:

The analysis of the collected data reveals that so far the teachers are not used to such a training in humanistic interpersonal skills but once they are given an opportunity to be aware and to use the skills of empathic understanding, respect, warmth and genuineness they will be able to develop and improve their humanistic interpersonal skills. They reported that they derived happiness and satisfaction while learning as well as using of these interpersonal skills. The given training helped all the teachers to enhance their humanistic interpersonal skills at least to a minimally facilitative level. The enhancement in the humanistic orientation of teachers led to a high degree of positive interactions in their class rooms.

The humanistic input programme in terms of teachers' enhanced level of humanistic orientation and high degree of positive interaction in their class rooms facilitated students' personal and cognitive growth to a significant level.

The results highlighted that by organizing a systematic training in humanistic interpersonal skills (carkhuff model, 1977) it is not difficult to enhance one's humanistic orientation. When teachers use these humanistic interpersonal skills even to a minimum degree the effect is found to be far reaching in facilitating the total growth of their students.