

CHAPTER - FOUR

PLAN AND PROCEDURE

The experimental method is a most valid approach to the solution of educational problems, both practical and theoretical, and to the advancement of education as a science.

- Gay.

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CHAPTER - FOUR

PLAN AND PROCEDURE

4.1 Introduction

The present study is an experimental intervention aimed at investigating the effect of humanistic input programme of teachers on personal and cognitive growth of their students. In order to carry out the study, the problem, objectives, hypotheses, the experimental design and the procedures adopted are highlighted in this chapter.

4.2 Statement of the problem

The previous chapters on significance, theoretical frame work and review of previous research lead the investigator to arrive at a specific problem. It is understood that humanistic education is found to be one of the alternatives to cope with present day educational crisis. Education for the whole being in terms of both intellectual and affective development is stressed by the humanistic psychologists like Maslow and Carl Rogers. Humanistic theory of education needs to be operationalized to bring out changes in students growth. Many attempts are made to humanize class-rooms and the review made in Chapter 3, reveals positive effect of humanistic orientation of teachers on personal and cognitive growth of their students.

An understanding, warm, friendly and genuine behaviour on the part of the teacher encourages pupil participation, enlarges their freedom of expression and promotes positive concepts about one self as well as in academic activities which in turn results in higher level of academic performance and creative ability. It is the concern of educational research to build effective humanistic interpersonal relationship between the teacher and taught and to create a friendly and positive climate in the class room for the greater release of cognitive potential. The only way to achieve this objective of education is to probe into the humanistic interpersonal relationship that exists between the teacher and his pupils and to study its effect on the growth of pupils.

The present study deals broadly with humanistic education and focuses specifically on humanistic interpersonal relationship between the teacher and his pupil. Following these lines a humble attempt has been made to develop an input programme for teachers to enhance their level of humanistic interpersonal functioning with their students. The effect of such a treatment is studied in terms of students' personal and cognitive growth.

The study has been titled as stated under.

"Effect of humanistic orientation training of teachers on personal and cognitive growth of secondary school students".

4.3. Operational definitions and explanation of key terms used in the study

1. HUMANISTIC ORIENTATION TRAINING OF TEACHERS

It is a training based on humanistic interpersonal skills of teachers to integrate and promote both cognitive and affective domains of their students' behaviour. The training programme is based on the idea that individuals become aware of their humaneness and how it is to be operated in our verbal, non-verbal communications and behaviour. The training is based on the nurturing conditions of personal and cognitive growth of students i.e., empathic understanding, respect for the human being, genuineness and warmth.

2. PERSONAL GROWTH

It refers to nurturing of the individual self, learning about his own feelings, actions motives fantasies, attitudes and inter-personal relations. In the present study, personal growth is conceptualized as students' (1)motivation for schooling; (2)academic self concept-performance based; (3)academic self concept-reference based; (4)sense of control over performance; (5)instructional mastery; (6)attitude towards school; (7)self-esteem; (8)student's perception of their teachers and (9)socio-metric status.

3. COGNITIVE GROWTH

In the present study cognitive growth refers the activity of mind. What an individual learns and the intellectual process of learning from the knowledge of an object to the level of judgement and creativity. In this study cognitive growth is conceptualized as students (1.)creative ability and (2.) academic performance.

4. EGO-STATES

According to Transactional analysis (Eric Berne, 1964), people act in three ways called-states. They are parent ego-state adult ego-state and child ego-state. An ego-state is defined as a set of consistent and coherent patterns of thinking feeling and activing. It implies all of our behaviours, ways of thinking, feeling, values and attitudes that we have imbibed from our own parents and elders, when we were children.

5. STROKES

A stroke here refers to any unit of social recognition, expressed through any act, physical, verbal and symbolic. The individual's strokig patterns determine whether ⁰are not he promotes or hinders personal growth of the other person.

4.4. OBJECTIVESOF THE STUDY

1. To develop a humanistic orientation training package for secondary school teachers.
2. To organize humanistic orientation training programme for selected secondary school teachers.

3. To study the effect of such orientation to teachers' on personal growth of their students with respect to:
 - 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) Socio-metric status.

4. To study the effect of humanistic input given to teachers on cognitive growth of their students with respect to:
 - a) Creativity and
 - b) Academic performance.

4.5. THE HYPOTHESES OF THE STUDY

As mentioned earlier, the goal of humanistic education is to develop self-actualizing, fully functioning and integrated whole persons (Maslow 1954; Rogers 1961) who can act not only on the basis of intellect but on feeling as well. In order to reach the goal, the teacher has to build an effective humanistic interpersonal relationship with his students. Rogers (1969) strongly believes that if a teacher by adopting the role of a facilitator, creates even to a modest degree the nurturing conditions-empathy, respect, warmth and genuineness, the pupils feel free to engage in personal growth experiences and build positive self-concepts. In such a relaxed and facilitative climate learning of a different quality which almost becomes life will occur (Rogers 1969, 1980). Carkhuff (1969) identified common core conditions present in all effective interpersonal processes which are conducive to facilitate human experiences. The core conditions which received support from the research are empathy, respect, warmth, genuineness, self-disclosure, concreteness, confrontation and immediacy of relationship.

Research evidence indicates that a teacher may either facilitate or retard the growth of their students. The teachers' level of functioning on the above core interpersonal conditions significantly influences students' personal (emotional) and cognitive growth. Aspy (1969, 1972), Hadlock (1967) and Kratochviletal (1969) reported that students of those teachers who are functioning at a higher level in their humanistic interpersonal skills achieved higher grades of academic achievement than pupils of teachers functioning at a lower levels.

Research findings by the National Consortiumn for Humanizing Education (N.C.H.E.) also supports the above findings. Out of their seventeen years of research in this area, reported that the students of highly facilitative teachers are found to (1) miss fewer days of school during the year, (2) have increased scores on self-concept measures indicating more positive self regard, (3) make greater gains on academic achievement measures both in mathematics and reading scores, (4) present fewer disciplinary problems, (5) commit fewer acts of vandalism to school property, (6) increase their scores on IQ tests, (7) make gains in creativity score and (8) be more spontaneous and used higher levels of thinking.

The research evidence led the investigator to arrive at the variables of personal and cognitive growth which can be nurtured by the effective humanistic relationship maintained by the teacher. The effect of such a humanistic relationship falls directly on the personal growth of students 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, students' perception of their teachers, and sociometric status and in turn on their cognitive growth-creativity and academic performance. From Roger's (1969,1980) point of view, the most striking learnings of students who are exposed to humanistic climate are not restricted only to the three R's but the learnings are the most personal ones like independence, self-initiated and responsible learning, release of creativity and tendency to become more of a person.

Based on the concept of humanistic education, objectives of the present investigation, the previous studies and the discussion made in the preceeding paragraphs, the following hypotheses were generated.

1. There would be a significant improvement in the personal growth of students with respect to the following variables after the humanistic orientation input programme.

- a) Motivation for schooling.
- b) Self-concept-Performance based.
- c) Self-concept-Reference based.
- d) Sense of control over performance.
- e) Instructional mastery.
- f) Attitude towards school.
- g) Self-esteem.
- h) Preception of their teachers.
- i) Socio-metric status of students.

2. There would be a significant improvement in the cognitive growth of students after the humanistic orientation input programme with respect to

- a) Creative ability
- b) Academic performance

4.6. The scope and limitations of the study

The term humanistic education is used interchangeably with psychological education, affective education, confluent education, open class rooms, alternative schools, value education, student directed learning and sensitivity

education. As it has taken its route via counselling and clinical psychology, it is yet to build a strong theoretical base in education. Humanistic education gets its impetus from the concept of Carl Roger's non-directive counselling relationship (1961). The crux of humanistic education lies in building effective humanistic interpersonal relationship between the teacher and taught in which students' actualizing tendencies are nurtured for the greater release of human potential.

The present study confines its inputs to Carl Roger's humanistic interpersonal attitudes-empathic understanding, respect and genuineness. Based on the above humanistic attitudinal qualities, Carkhuff et al. (1977), developed a model of interpersonal skills applied to teaching. The inputs in the present study are related to (1) The skills of teaching interpersonal skills (Carkhuff, Berenson, Pierce, 1977), (2) human relations development in educational settings, (G.M. Gazda F.R. Asbury, F.H. Balzer, W.C. Childers and R.P. Walters (1973,1977)and (3)The concept of transactional analysis by Eric Berne (1964).

Although humanistic education integrates both cognitive and affective elements, the inputs in the present study pertains to the affective domain of human behaviour, which of course will be integrated spontaneously with cognitive elements i.e., content of teaching.

The objective of training teachers is, to develop humanistic facilitative inter personal skills for their use in teaching-learning situations and to buildup an understanding relationship between the teacher and his pupils.

The present study couldn't attempt to develop the content of learning integrating with humanistic interpersonal skills.

As the spirit of humanistic education rests on the role of teacher as "facilitator of learning", (Carl Rogers, 1969 1983), the training programme confined to teachers only. The training programme is not extended to headmistresses and students.

The present investigation is an intervention study ranged for six months.

The study is restricted to standard VIII in four high schools of English medium managed by Christian Catholic nuns.

The study includes all the subjects teachers and their students.

Two parallel studies are conducted on a random sample of twenty four teachers from four schools of Guntur and Vijayawada towns Managed by the nuns of Christian Catholic missionaries.

The total sample of pupils under twenty four teachers was 186, in which 45 belonged to experimental group I and 44 to control group I and 47 belonged to experimental group II and 50 to control group II in studies number I and II respectively.

The contents to be taught during experimental period were the same in all the four schools.

4.7. THE EXPERIMENTAL DESIGN

The present investigation is an experimental intervention. Two group experimental, control, pretest, treatment, post-test design is employed to study the change in pupils' growth due to the treatment given. Two parallel studies ^{were} conducted to replicate and strengthen the results. Experimental study I is conducted in a girls' school and Experimental study II in a co-educational school. This design envisages in both the studies four groups of secondary school

teachers and students of four different schools, one serving as the experimental group I, the second as the experimental group II and the third and fourth as the control groups I and II.

The following tables present the design of the experiment.

Table-3: Table showing the design of the experiment

GROUP	PRE-TEST	TREATMENT	POST-TEST
Experimental	_/	_/	_/
Control	_/	-	_/

The above design is a quasi experimental design i.e., non-equivalent control groups are used rather than randomized or matched groups. " _/" marks indicate, the administration or pre, post tests and treatment. "-" indicates that the control group is not given treatment. The dashed line indicates that the experimental and control groups have not been equated by randomization. This design creates potential difficulty in controlling the selection and experimental mortality bias. In the present study the above experimental design was used to overcome the potential selection bias. The investigator compared the intact groups on pre-test scores of experimental vs. control groups in the selected variables. Along with these variables age was found

to be similar as the students from VIII standard and their, average is found to be 12+. Both the experimental and control groups are selected from the same type of school i.e., girls (study I) and co-educational (study II) to avoid sex differences.

In the present study the pre test means are found to be equivalent ('t'= not significant at 0.05 level) in most of the dependent variables of the selected groups. Therefore, experimental and control groups were considered to be similar. The experimental and control groups were decided randomly among the two groups of girls as well as co-educational schools.

4.7.1. PRE-TESTS OF TEACHERS

In order to assess the initial level of humanistic orientation, the selected sample of teachers was administered Carkhuff's interpersonal skills scales (1977) of empathy, respect and genuineness (Test 2). Along with this test, Lakshmi's class room interaction, observation, schedule (Test 1) was used to observe and record their initial level of class room interactions. The investigator observed and tape recorded five forty five minutes classes for each teacher of the experimental groups

of study I and II and recorded their class room interactions in terms of positive and negative behaviour of both teachers and pupils.

4.7.2. PRE-TESTS FOR PUPILS

The pupils of standard VIII belonging to the four selected schools were administered pre-tests to assess the initial level of personal growth using, (1) School attitude measure (2) Rosenberg's self-esteem scale (3) Teacher relationship preception inventory, (4) Socio-metric scale and cognitive growth by using (5) Passi's tests of creativity and (6) Terminal examination scores in all the academic subjects is taken as an index of the academic performance of students.

Two parallel experimental studies were conducted simultaneously in two different places.

4.7.3. TREATMENT

The treatment includes both the training of teachers and the experiment proper conducted in schools.

TABLE - 4 - PARADIGM OF THE STUDY

S.NO	VARIABLES	TOOLS	SAMPLE	STATISTICS
A.	Independent Variable: Humanistic orientation training of teachers.	1.Lakshmi class room interaction observation schedule (1981).	Teachers -24	1.Percentage
B.	Dependent variables:	2.Carkhuff's interpersonal skills scale (1977).		2.Ratings. 3.Discrimination index
	<u>I. Personal growth:</u>		Pupils-186	
	1. Attitude towards school	1. School Attitude Measure (SAM) L.UJ.		1. 't' Tests.
	(A) Motivation for schooling.	Dolon & Marci Morrort Enos (1980).		2. 'F' Tests.
	(B) Self-concept-performance based.			3. Coefficient of Correlation (r).
	(C) Self-concept-Reference based.			4. Profile analysis.
	(D) Sense of control over performance.	2. Rosenberg Self Esteem Scale (S.E.S.) (1965)		5. Meta analysis
	(E) Instructional mastery.			
	2. Self esteem.	3. Teacher Relationship perception Inventory (TRPI) Joe Wittmer & Robert Myrick (1974).		
	3. Students' perception of their teachers.			
	4. Socio-metric status of students.	4. Sociometric Status Scale by Pareek (1971).		
	<u>II. Cognitive Growth:</u>	5. Passi Tests of verbal Creativity-Tests 1 2 & 3 (1979)		
	1. Creativity.	6. Terminal examination scores of all the academic subjects.		
	2. Academic performance.			

TABLE - 5
.. THE EXPERIMENTAL DESIGN IN STUDIES I & II

	EXPERIMENTAL GROUP		CONTROL GROUP	
	Teachers	Pupils	Teachers	Pupils
PRE-TEST	Tests 1 & 2 are administered. Five pre-observations per teacher are recorded to assess the initial level of humanistic orientation and class room inter-action.	Tests 1,2,3,4,5 and 6 are administered to assess the initial level of personal and cognitive growth	Test 2 is administered.	Tests 1,2,3,4,5 and 6 are administered to assess the initial level of personal and cognitive growth.
TREATMENT	<p>I. FIRST PHASE INPUT:</p> <ol style="list-style-type: none"> 1. Orientation lectures to headmistresses and teachers. 2. Training in humanistic interpersonal skills and dimensions for twenty days - Test 2 is administered. 3. Feed back during the course of experiment through weekly meetings and post-observations. <p>II. SECOND PHASE INPUT:</p> <p>Key concepts are strengthened in the light of their practice in classrooms for eight days.</p>	<p>Exposure to the teaching of the enhanced level of humanistic orientation of their teachers and humanistic classroom climate for six months.</p>	No treatment.	No Treatment.
POST-TEST	Test 1 is administered. Five post observations per teacher are recorded to study the effect of humanistic orientation training on their class room behaviour.	Tests 1,2,3,4,5 and 6 are administered to study the effect of humanistic treatment on personal and cognitive growth.	Test 2 is administered.	Tests 1,2,3,4 and 5 are administered to assess the final level of personal and cognitive growth without the treatment.

Statistical analysis: Testing for significance of improvement in personal and cognitive growth.
Meta-analysis of the results of study I & II.

4.7.3.1. TRAINING PROGRAMME FOR TEACHERS

Among the two categories of schools i.e., girls and co-educational, experimental and control groups were assigned randomly between the two girls and co-educational schools.

After deciding the experimental and control groups in both the studies, all the subject teachers belonging to experimental group in study I and II were given intensive training to enhance their humanistic orientation. The training programme on (1) Inter personal skills and dimensions of Carkhuff et al. (1977) with respect to attending / listening, responding, personalizing, initiating, empathy, respect, genuineness, warmth, concreteness, self-disclosure, confrontation and immediacy the skills of teaching- inter personal skills by Carkhuff, Berenson Pierce (1977), (2) The exercise of human relation development, a manual for educators by Gazda et al. (1977), (3) The use of stroking patterns and ego-status by Eric Berne (1964) and (4) Exercise to develop achievement motivation, self confidence and self-esteem was given. This first phase input course to teachers took twenty days spending two and half hours per day during the afternoon session. After training all the teachers to attain the minimally facilitative level (level 3), they are allowed to teach their

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pupils applying the skills and dimensions learned during the training.

4.7.3.2. THE EXPERIMENT

During the experiment the teachers of the experimental groups of study I and II were observed while they are teaching. Feed backs in the use of the humanistic interpersonal skills and dimensions were given through weekly meetings and post-observations. The teachers are asked to practice these humanistic dimensions and skills in their day to day teaching in class rooms and also outside the classrooms. They are asked to avail the various opportunities to make use of these skills with their pupils.

After four months the teachers had second phase input for 8 days to strengthen the skills and strategy in the light of their experience. Students of these teachers are exposed to humanistic climate for six months.

The control group is not given any treatment either in terms of teachers or students and it followed the traditional method of teaching.

4.7.4.1. POST-TEST FOR TEACHERS

During the experiment, nearly at the end of six months, teachers of experimental groups were administered Lakshmi's class room interaction, observation schedule (Test 1) and observed five post-observations per teacher and recorded with the help of a tape recorder. The class room interactions of these teachers were recorded in terms of positive and negative behaviours of both teachers and pupils. While the teachers of control groups were administered test two i.e., Carkhuff's scales of inter personal skills (1977).

4.7.4.2. POST-TESTS OF PUPILS

At the end of six months the pupils of both experimental and control groups were administered post-tests the tests 1,2,3,4,5 and 6 as mentioned in pre-tests to assess the final level of personal and cognitive growth of pupils.

4.7.5. STATISTICAL ANALYSIS

The pre and post-test scores were compared so as to determine the differences in the performance of pupils and to assess their level of growth in personal and cognitive dimensions, who are exposed to humanistic climate. The data was subjected to 't'F, 'r' and meta-analysed 'z' tests.

The design provides for the control of some of the variables jeopardizing internal validity of the experiment. Maturation and testing were controlled insofar as they would be manifested equally in experimental and control groups of both the studies. Instrumentation was controlled through reliability of the tools used in experiment except for achievement tests. Experimental and control group in study I and II are selected from different schools to avoid contact between them.

4.8. THE SAMPLE

As the study requires both the teachers and students for training and experiment, four English Medium secondary schools from Guntur and Vijayawada managed by Christian catholic nun-missionaries are selected. All the teachers and students of VIII class from the selected schools formed the sample.

As mentioned earlier, two parallel experiments were conducted at the same time to replicate and strengthen the results. One experiment is conducted on girls school and another on co-educational school. The experimental and control groups were assigned randomly among the two girls and co-educational schools.

Table No.6 - Distribution of the sample

<u>S. No.</u>	<u>Name of the school</u>	<u>Study</u>	<u>Grade and section</u>	<u>Teachers</u>	<u>Pupils strength</u>	<u>Sex</u>	<u>Group</u>
1.	St. Joseph's High School, Guntur, A.P.	I	VIII A	6	45	Girls	Exptl. Gr. I
2.	Atkinson's School, Vijayawada, A.P.		VIII A	6	44	Girls	Contl. Gr. I
Total sample in study I				12	89		
3.	St. Ignatius School, Guntur, A.P.	II	VIII B	6	47	Boys & Girls	Exptl. Gr. 2
4.	Nirmala High School, Vijayawada, A.P.		VIII B	6	50	Boys & Girls	Contl. Gr. 2
Total sample in study II				12	97		
Total sample in study I & II				24	186		

4.9 INSTRUMENTATION

In the present study the following relevant tools are used for data collection to study the effectiveness of humanistic treatment in facilitating personal and cognitive growth of students.

(a) Tools used to assess independent variable :

1. Lakshmi class room interaction observation schedule (CIOS).
2. Carkhuff's interpersonal skills scale (1977).

(b) Tools used for measuring dependent variables :

1. School Attitude Measure (SAM)
2. Rosenberg self-esteem scale (SES)
3. Teacher Relationship Perception Inventory (TRPI)
4. Socio-metric Scale (SS)
5. Passi Tests of Creativity (PTC)
6. Academic Performance (AP)

4.9.1. LAKSHMI CLASS ROOM INTERACTION OBSERVATION

SCHEDULE : (CIOS) (1981).

Class room interaction is assessed by Lakshmi Class Room Interaction observation Schedule. It was developed by Lakshmi (1981) to study the class room interaction. It is an observation schedule to record positive and negative behaviours of teachers and students. There are four dimensions of teacher behaviours i.e., informative, responding, persuasive and supportive. Similarly, there are three dimensions of pupil behaviours, namely, responsive, initiative and cooperative. Against each behaviour two/three specific activities both positive and negative are listed. These activities are recorded on a card for every two minutes in fifteen time samples. This tool measures the positive and negative interactions of class room in terms of teachers and student behaviours.

It is also a measure of class room climate in terms of positive and negative interactions of teachers and pupils. The positive climate created by the teacher in his class room, is taken as an expression of the level of his humanistic orientation. The scale is adopted from Centre of Advanced Study in Education (1981). The scale is appended under Appendix I-A.

4.9.2. CARKHUFF'S INTERPERSONAL SKILLS SCALE (1977)

Teacher's level of humanistic interpersonal functioning skills are assessed by using Robert R. Carkhuff's interpersonal skills scales. There are seven scales altogether measuring the teacher's level of empathy, respect, genuineness, warmth, concreteness, self disclosure, confrontation and immediacy which are rated on a five point scale. The scale ranges from the levels of very ineffective to very effective i.e., 1 to 5. Level 1.0 indicates that the teacher neither understands nor gives direction to the pupil's problem. Level 2.0 indicates that the teacher expresses no understanding of feeling but with some direction and is rated as ineffective.

Level 3.0 indicates, responding to both feeling and meaning of the content without any direction to the learner and is rated as minimally effective. Level 4.0 indicates, responding to both feeling and meaning of the content with direction to understand and personalize the pupil's goals and is rated as effective.

Level 5.0 indicates understanding of both feeling and content of the pupils' verbal expression and there is a specific direction to the pupil in giving step by step

programme to achieve his goals and is rated as very effective.

Few excerpts are given to teachers which involve a number of responses that a teacher might make, to problems presented by students. Following each expression, there are five alternate teacher responses which are rated from 1 to 5 as stated above by the teachers. These ratings provide an average rating which is taken as an index of communication.

Scoring is done by calculating discrimination index. Discrimination score is determined by subtracting teacher's ratings from the trained rater's ratings, adding the deviation scores, disregarding the signs and dividing the deviation score by the number of ratings will give an average deviation. which is the discrimination score. It indicates how much the teacher's pre-training personal rating deviates from trained raters in his ratings. Discrimination scores of one-half ($1/2$) level or less deviation are considered to be good scores and the scores over one (1) level deviation are poor scores.

Level 3.0 is taken as an index of minimally facilitative humanistic interpersonal dimension and is expected that a teacher should at least be at this level to facilitate pupil's growth (Rogers, 1969).

All the scales have been validated in extensive process and outcome research on counselling and psychotherapy (summarized in Truax & Carkhuff, 1967, Carkhuff, 1968; Carkhuff & Berenson, 1967). All the scales are presented in Volume II.

4.9.3. SCHOOL ATTITUDE MEASURE (SAM)

The School Attitude Measure is a self-report survey instrument developed by Lawrence J. Dolan and Marci Morror Enos (1980). It provides an evaluation of student's affective response to their school experience. To understand better the performance of students in the school environment, it is useful to examine their perceptions of themselves as competent learners. Based on their various experiences at school, they form an opinion about themselves and respond with both positive and negative feelings toward many dimensions of school life. These affective responses are as crucial as cognitive ability in determining school success.

The School Attitude Measure meant for the grades 7-8 was used in the present study. This measure has altogether eighty five positive and negative statements. Against each statement, there is a four-point scale ranging from 'never agree', 'sometimes agree', 'usually agree' to 'always agree'. The test-retest reliability four weeks apart is 0.94. It reports a strong convergent validity of specific sub-scales with other instruments, that test only one aspect of affective development.

The school Attitude Measure consists of five scales as stated below:

SCALE A: Motivation for Schooling

It is concerned with the affect of the student's reactions to past school experience upon their motivation in school. The way students have come to feel about their total school experience can influence how hard they want to work in school, how highly they value school and how much they value school and how much they want to pursue further schooling. This scale has seventeen (17) statements.

SCALE B: Academic Self-Concept-Performance Based

The statements in this scale are concerned with the student's confidence in their academic abilities and their feelings about their school performance. Students' feelings about their academic abilities can contribute to their success or lack of success in school. The scale consists of seventeen statements.

SCALE C: Academic Self-Concept-Reference Based

The scale consists of seventeen (17) statements and is concerned with how students think other people (teachers, family, friends) feel about the student's school performance and ability to succeed academically.

SCALE D: Student's sense of control over performance

The seventeen (17) statements, in this scale are concerned with student's feelings about being able to exercise control over situations that affect them at school and to take responsibility for the outcome of relevant school events like grades, promotions, etc.

SCALE E: Student's Instructional Mastery

Unlike the previous scales, this scale is concerned with the actual school skills of students than with their feelings. These skills include student's evaluation of her ability to use school time effectively, persistence in instructional tasks, ability to seek and use feed back from others and ability to evaluate their performance. This scale also has seventeen (17) statements.

The S.A.M. is appended under Appendix I-C.

4.9.4. ROSENBERG SELF-ESTEEM SCALE (S.E.S.)

This scale was used to measure student's self-esteem. It was developed by Rosenberg (1965) and measures self-acceptance aspect of self-esteem. This scale is specifically meant for high school students. It is a short scale of ten items, compressed into six scales. In the present study the scale was used without the grouping of items necessary for Guttman format. Against each item, a four point scale is given ranging from strongly agree to strongly disagree. High self-esteem as reflected in scale items expresses the feeling that one is 'good enough'. The individual respects and, considers himself worthy. He does neither necessarily consider himself better than others nor consider himself worse.

Low self-esteem on the other hand, implies self-rejection, dissatisfaction and self contempt. The individual lacks respect for the self he observes. It is highly reliable with a test-retest reliability of 0.85 over two weeks and Guttman scale reproducibility co-efficient of 0.92. The scale is appended under Appendix I-D.

4.9.5. **TEACHER RELATIONSHIP PERCEPTION INVENTORY (TRPI)**

T.R.P.I. was developed by Joe Wittmer and Robert Myrick (1974). The investigator adapted twenty (20) items from the inventory. It measures teacher's humanistic interpersonal relationship as perceived by their students. The items depict four inter-personal dimensions namely, empathic understanding, respect, warmth and genuineness. The items are answered on a five point scale ranging from 'strongly agree' to 'strongly disagree'. The inventory is appended under Appendix I-E.

4.9.6. **SOCIOMETRIC SCALE (S.S.)**

Sociometric scale was constructed by Pareek (1971). It is a measure of assessing the attractions and repulsions within a group on the one hand and a measure of sociometric status of student on other. In the present study this scale is used to measure whether there

is any increase in the level of sociometric status of students due to the input programme. The scale has three questions. Each pupil in a class is asked to mention the names of the three members of the class with whom he/she would like to (1) study, (2) play and (3) make friends with. Sociometric status score is determined by the total number of preferences that an individual gets from the group. The Sociometric scale used by the investigator is appended under Appendix I-F.

4.9.7. PASSI TESTS OF CREATIVITY (P.T.C.)

The test was developed by Passi (1979), for measuring creativity in high school children. The test battery consists of six tests, namely : (1) the seeing problems test, (2) the unusual uses test, (3) the consequences test, (4) the test of inquisitiveness, (5) the square puzzle test and (6) the blocks test of creativity. The first three tests consists of verbal tasks, the fourth uses mostly non-verbal stimuli with verbal response, last two are performance tests comprising non-verbal tasks. In the present study only the first three verbal tests of creativity were used as each test in the battery measures a different aspect of creativity. The main purpose of using the tests of

creativity is to study whether there is any growth in the creativity of students after the experimental intervention. The test-retest reliability co-efficient of the test over a fortnight is 0.92. The test has a concurrent validity 0.46. The scale is appended under Appendix I-G.

4.9.8. ACADEMIC PERFORMANCE OF STUDENTS

One of the variables taken under cognitive growth of students is their academic performance. The effect of the humanistic input is studied in superior academic performance of students. Terminal examination marks of all the academic subjects before and after the experiment is taken as an index of students' academic performance.

4.10. PROCEDURE

As explained in the design of the experiment the study was conducted in three phases i.e., pre-test, treatment and post-test. During the first phase the investigator collected data from both teachers and pupils to ascertain the initial status of the selected variables. Teachers' initial level of humanistic Orientation was assessed by making the teachers rate the responses provided in the form of excerpts and also by observing and recording their class room interaction

in terms of positive and negative behaviours. The pupils' level of personal and cognitive growth was ascertained by the administration of the selected tools.

Before the start of the pre-test phase, the investigator got trained from Christian Counselling Centre in the counselling skills of Egan's model (1976). For that matter all the counselling models are based on Carl Roger's non-directive counselling and psychotherapy. The core conditions of any counselling relationship rest on empathy, respect and genuineness. As the investigator would like to organize the training programme personally, she thought of getting the training in the use of counselling skills. This training in the use of counselling and psychotherapy model helped her to gain insight into the helping and humanistic relationship and facilitated her to prepare a humanistic orientation training package for teachers by adopting exercises from various sources.

After preparing the training package, the investigator gave orientation lectures in the selected experimental schools. The investigator emphasized how the humanistic attitudes-empathy, respect and genuineness facilitate other person to grow and actualize his potentialities.

The investigator herself has drawn up the programme and also directed the whole training programme. The training programme for teachers was conducted in two phases. The following inputs were given in the first phase.

Phase I

1. Carkhuff's model of interpersonal ~~teaching~~ skills and dimensions

A. SKILLS

- a) Attending
- b) Responding
- c) Personalizing
- d) Initiating.

B. DIMENSIONS

- a) Empathy
- b) Respect
- c) Genuineness
- d) Warmth
- e) Self-disclosure
- f) Concreteness
- g) Confrontation
- h) Immediacy

2. Training in the following concepts of transactional analysis

- a) Ego-states
- b) Strokes

3. Communication of facilitative responses and exercises to develop and build achievement motivation and self confidence.

- a) Nature of communication
- b) Use of facilitative responses
- c) Exercises on achievement motivation, self-confidence, relaxation etc.

The training was given for twenty days spending two and half hours per day during the afternoon sessions.

The main purpose of humanistic orientation training is to facilitate teachers to develop humanistic attitudes and build up understanding and warm relationship with their pupils to promote for their effective learning. After the first phase input the teachers are allowed to teach using humanistic interpersonal skills and dimensions with their pupils.

The teachers were given feed back through post-observations and weekly meetings. After four months of input to pupils, the teachers had second phase of training for eight days.

PHASE II

1. Strengthening of all the humanistic interpersonal skills and dimensions in the light of their experience with pupils.

2. Discussion on their experiences with initiating skills to attain the goals of learning.

After the second phase input, the teachers are asked to use the skills in solving class room problems as well as learning problems. Teachers allowed pupils to solve their problems by thinking together democratically and also encouraged higher level of students' involvement.

The experiment continued for two more months. On the whole the experiment was conducted for six months. After six months both the teachers and students had post-test phase where in they are administered all the tests to ascertain their final status on the variables under study.

4.11. COLLECTION OF DATA

As there are two experimental and control groups, the investigator fixed a particular week in a month for each school to carry on the pre-testing phase. During this phase the data were collected from both teachers and pupils by administering the selected tools. The whole week was spent in the same school to collect data from both teachers and pupils. In the morning sessions of the week five observations per teacher were recorded which are distributed over a week. Tape recorder was used to record the whole lesson apart from the observation schedule. Teachers were also administered carkhuff's interpersonal skills scales to rate their responses.

During the afternoon sessions, the last period which is usually meant for non academic subjects was used. If an additional time is required for testing, the students were requested to stay back even after the school is over. The students were told before hand that they are going to be late to home throughout the week and were asked to inform the same to their parents. Two tests were administered on each day. Passi's tests of creativity and teacher relationship perception inventory

were administered one after the other on the same day. School attitude measure and sociometric status scale were administered together on any day of the same week. The administration of self-esteem inventory and the collection of marks in all the academic subjects of their terminal examinations were done together on any day during the same week. The above procedure was adopted in all the four schools to collect the data.

4.11.1. LAKSHMI CLASS ROOM INTERACTION OBSERVATION SCHEDULE

The investigator while sitting in the class room recorded the class room interaction in terms of positive and negative behaviours of both teachers and pupils on a cyclostyled card for every two minutes in fifteen time samples under the allotted columns against each specified behaviour. Before the recording, the investigator got acquainted with the various categories of positive and negative behaviours of teachers and pupils according to the table of guidelines. The investigator practiced the recording of class room interaction with her student teachers while they were doing their practice teaching. The number of different categories of positive and negative behaviours of teacher and pupils were counted for each observation and average percentage was

calculated for each category as well as total behaviour of both teacher and pupils. A Specimen of a recorded class room interaction observation card is appended under I.A.

4.11.2. CARKHUFF'S INTER PERSONAL SKILLS SCALE (1977)

Cyclostyled copies of two excerpts per teacher were distributed to all the teachers of both experimental and control groups. They are asked to rate the responses provided under each excerpt. The answered excerpts were collected next day from the teachers. The same procedure was adopted in pre and post testing phases. During the training the whole group of teachers rated one another's humanistic interpersonal dimensions on the cyclostyled copies of rating scales.

4.11.3. SCHOOL ATTITUDE MEASURE

Printed copies of the test were distributed to the students and were explained the instructions to mark their responses. The investigator read all the eighty five items aloud along with the students and clarified the meaning of certain words where ever they felt difficulty to understand. After that the students were allowed to mark their responses.

4.11.4. ROSENBERG'S SELF-ESTEEM SCALE

The students were distributed the cyclostyled copies of the scale and the investigator read the instructions aloud and explained when to mark strongly agree, agree, disagree, and strongly disagree. The investigator read all the items aloud and clarified their doubts. In order to avoid mechanical marking of the responses, the students are asked to mark the items along the reading of items by the investigator.

4.11.5. TEACHER RELATIONSHIP PERCEPTION INVENTORY

Each student was given six cyclostyled copies of the inventory and were asked to write the name of each teacher on each one of the copy along with his name. The students were also given the mother tongue(Telugu) version of the inventory to facilitate better understanding of the items. The students were explained the instructions and were asked to think of their relationship with the specified teacher. They were given time for each item to reflect and proceed for marking. They are asked to go to the next item only after marking the previous item.

4.11.6. PASSI TESTS OF CREATIVITY

Cyclostyled copies of the instructions and answer booklets for the three verbal tests of creativity were distributed to the students and were asked to fill in the name and other details. The investigator explained the general instructions and clarified their doubts.

Specific instructions were given to each verbal test.

4.11.6.1. SEEING PROBLEMS TEST

The Instructions were explained by using the example 'time piece' given in the instruction booklet. They are asked to write as many defects and problems when they use the common objects given in the answer booklet. But they have to complete the whole test within eight minutes. There are four common objects. The time eight minutes was distributed equally for each item. The students were told that they are going to get only two minutes for each item.

An oral indication was given after every two minutes to make the students aware of the time. Students were instructed to stop writing when they are asked to stop. Sufficient time to understand the whole procedure was given. After making the students clarify their doubts like whether they can write in simple sentences within two words whether

they are allowed to use mother tongue (Telugu) when ever they feel difficulty to express in english. The investigator considered the above requests. Then the students were asked to write their responses under each common object against the space provided in terms of 1,2,3,4,5 etc. After clarifying every thing clearly, the students were announced to start the test. The investigator announced the time for every two minutes as well as after the total time at the end of eight minutes and they were asked to stop writing.

4.11.6.2. UNUSUAL USES TEST

Students were asked to goto test-II, the unusal uses test. The instruction were read and explained with the help of example 'match box'. The students were asked to write down all possible unusal and interesting uses for each of the objects namely piece of cloth and bottle. The students were asked to complete the test within eight minutes. After evry four minutes an oral indication of the time was given. After eight minutes the investigator announced to stop writing.

4.11.6.3. CONSEQUENCES TEST

The students were asked to goto test-III in the answer booklet namely consequences. The instructions were read aloud and explained the procedure to respond with the help of an example given in the instruction booklet-'if the force of gravity of the earth vanishes'. Along with the consequences given in the test booklet, students were asked to give some more consequences for the above impossible statement. Sufficient time was given to clarify their doubts. They are allowed to write the responses in their mother tongue when ever they find the difficulty to of express in english. The students were asked to write down the direct and indirect consequences for the given four impossible statements within the time limit of eight minutes. Two minutes are devoted for each item but they are at liberty to devote time for each item. The investigator gave an oral indication after every two minutes to make the students aware of the time. After the allotted time the students were asked to stop writing.

4.11.7. SOCIOMETRIC STATUS SCALE

The students were asked to write down three names of their class mates in the order of preference with whom they would like to associate themselves for each of the three specified situations namely, study, play and friendship. Students were given sufficient time to think and write the names.

4.11.8. ACADEMIC PERFORMANCE

The percentage of marks obtained in the half yearly examination of standard VIII in all the academic subjects were collected from the selected schools. An aggregate score was obtained by summing up all the marks of different subjects. This score is taken as a pretest measure. In the same way, the percentage of marks of quarterly examination in standard IX is taken as post-test measure. All the terminal examinations were common to all the schools and the scores are comparable.

4.12. ANALYSIS OF DATA

The data were subjected to the following types of analysis.

1. Descriptive analysis-- The data were analysed in terms of percentages, means and standard deviations to assess the initial and final status of the phenomena namely humanistic orientation, Personal and Cognitive growth.
2. Differential analysis -- The data were subjected to 't' and 'F' tests to find out the significance of difference between Pre-post and experimental versus control group performance to assess the effect of humanistic orientation input programme.
3. Correlational analysis-Product moment coefficient of correlation 'r' was calculated for all the variables between pre and post tests of experimental and control groups to determine the effect of the experimental intervention.
4. Profile analysis -- Profile mean, Profile standard deviation and Profile 'F' were calculated to compare pre and post-test profiles of experimental groups to understand the nature of profiles in terms of parallel-ness, difference of level and the test main effects with respect to S.A.M, S.S and P.T.C.

5. Meta--analysis-Meta--analysed 'z' values were computed to reach over all conclusion of the two experimental studies.

6. Graphical representations--Pre, Post-Training and group ratings of experimental teachers for their humanistic interpersonal skills in study I and II. Pre and post experimental ratings of control group of teachers for their humanistic interpersonal skills in study I and II.

Bar graphs showing Pre, Post comparisons of personal and cognitive growth in experimental and control groups of study I and II.

4.13. CONCLUSION

The whole spirit of humanistic education lies in teacher pupil relationship. It is understood if teacher pupil transactions are characterized by humanistic dimensions--empathic understanding, respect and genuineness, the total growth of pupil in terms of personal and cognitive aspects will be facilitated. In order to test the above hypothesis, the whole plan and procedure, right from problem, objectives, hypotheses, scope and limitations, the experimental design, sample, instrumentation, collection and analysis of data were discussed at length. The next chapter is going to deal with the analysis and interpretation of the collected data.

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