

## CHAPTER V

## TRYOUT AND FINAL EXPERIMENT

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### V.1 THE TRYOUT STUDY

In implementing the input model in the practical situation, it is necessary to consider the aptness of the activities in view of the conditions prevailing in the schools, general nature of the pupils who would be involved in it, the resources available in the schools etc. Secondly, evolving suitable strategies for implementing the input activities in consideration to the above factors and sequencing them from a psychological view point and integrating them with the intellectual and physical aspects of schooling would demand trying out the model in the natural situations obtaining in the schools. It was essentially with this purpose that the study was conducted on a tryout basis for a period of one month. This had the same conceptual model and approach as that of the final experiment.

A schedule of the programme for inducing psychological education inputs was prepared before the actual experiment started. On the basis of the observations of regular classroom work made by the investigator, the inputs were integrated with regular work of teaching. As the tryout experiment was of four weeks, the first and last week were scheduled for administration of the pre and post tests. The other activities were carried out <sup>the</sup> in/remaining two weeks.

(1) To study the effectiveness of the treatment on performance, post-test achievement scores of experimental and

control groups pupils have been taken. Since the groups have been matched only on intelligence, post-test achievement scores have been adjusted by controlling the pre-test achievement score by covariance. The difference between the adjusted means of the post scores have been compared by applying 't' test. Mean scores of the experimental group and the control group have been presented in Table I.

TABLE 1  
Mean Scores in Various Subjects

Subjects	Experimental Mean	Control Mean	S.E.	df.	t value
English	11.30	8.68	3.75	81	3.20**
Gujarati	15.63	12.69	2.63	81	4.11**
Hindi	13.48	10.26	3.35	81	4.11**
Social Studies	13.02	10.76	4.00	81	2.59*

\* Significant at 0.05 level

\*\* Significant at 0.01 level

It can be observed from Table 1 that mean score in all the subjects, viz., English, Gujarati, Hindi and Social Studies are higher in experimental group than in control group. In case of these subjects, viz., English, Gujarati and Hindi, it is significant at 0.01 level while in case of Social Studies, it is significant at 0.05 level. It shows that the treatment had definite positive effect on performance of the pupils.

(ii) To study the effectiveness of the treatment on

other variables, viz., n-Ach., adjustment, classroom trust and anxiety, gain scores on the corresponding test were computed for experimental and control group pupils, 't' test was applied to test the significant difference in mean gains for control and experimental groups. A significant difference was found in n-Ach. at .01 level. The difference was not found to be significant in case of other variables, namely, adjustment, classroom trust and anxiety. Mean scores for the two groups in respect of the different variables have been presented in Table 2.

TABLE 2  
Mean Scores for n Ach., Adjustment, Classroom  
Trust and Anxiety

Variables	Experimental		Control		df	t-value
	Mean	S.D.	Mean	S.D.		
n Ach.	8.41	7.85	0.98	4.51	84	5.35**
Adjustment	6.96	16.02	2.55	17.67	84	1.21
Classroom trust	1.86	5.23	1.24	3.53	84	0.64
Anxiety	0.80	5.11	2.36	5.40	84	1.38

\*\* Significant at 0.01 level.

(iii) Along with the statistical results presented in Table 2, it would also be worthwhile to discuss certain qualitative changes which took place in the pupils as a result of the tryout experiment.

(a) Frequent changes in sitting arrangement had its

effect on the behaviour of the pupils. Towards the end of the experiment, the five isolated pupils mixed with other pupils of the class. They got confidence in themselves and used to take initiative in the class. Because of the treatment, these pupils happened to get not only accepted but they themselves got more involved in the classroom activities. Some of the pupils did not have clear perception about their abilities and attitudes.

— Jayesh, when he worked with a clever boy Yogesh, started working hard. He got confidence and, indirectly, his performance also improved.

(b) Pupils liked the period for group work. It created awareness about their own interests and abilities. While preparing charts and writing poems pupils could show the talent they possessed and also learned to work with their classmates. It was found that even the isolated pupils involved themselves and worked enthusiastically. Pupils began to suggest their own plans for preparation of new charts and new activities. As a result of these activities, quite a few of them developed the hobby for collecting interesting pictures, rare articles, etc.

(c) About the goal-setting behaviour, it was observed that the gap was more between goal supposition and goal obtained in the beginning. Within two weeks, a definitely positive change was perceived in their behaviour. They began setting more realistic goals according to their self expectation and worked harder to achieve the goals supposed, considering it as a commitment on their part to do so.

(d) The integrative atmosphere in the classrooms provided opportunity to pupils to feel free and to participate actively in the class. Free and spontaneous actions were clearly perceived on the part of the pupils who never used to speak in the class. It made the bright pupils more curious and developed in them greater interest to know more than the routine information about the topics of learning. Some pupils were assigned the responsibility of helping other pupils, which they found challenging, as they got more chance to exhibit their talents and abilities.

(e) In the earlier part of the experiment, pupils usually selected only religious story books for library work. However, they soon found their particular area of interest. As a result, a change was observed for the selection of story books.

## V.2 OBSERVATIONS FOR MODIFICATION OF THE INPUT MODEL

In tryout experiment, the subjects Mathematics and Science were not taken. However, in the natural course, the teaching programme includes - Mathematics and Science. Further, it was thought that the motivation would considerably be different to learn different subjects. These factors may interact with the total performance of the pupils. Therefore, in order to get the clear picture of the impact of psychological education inputs on total performance, it was thought desirable to include the teaching of Science and Mathematics in the final experiment.

From the tryout, it was observed that the pupils did not

appreciate the incentive items, viz., 'Who am I?' and 'What would I like to be?'. They thought that these items were mainly for developing the ability for self-expression and that it was rather direct approach and it was repeatedly done. To make these items more appealing and likeable, the writing sheet with questions was got printed. The frequency of obtaining the pupils' responses on these items was minimised to only pre-post measures.

It was hypothesized that the psychological education inputs should influence certain characteristics, viz., adjustment, classroom trust and anxiety of the pupils. But the results of the tryout did not reveal such influence. An attempt was made to include more activities relating to the factors of adjustment, classroom trust and anxiety. A word association test was given to the pupils to find out their perception about the school, providing the words related to classroom.

### V.3 THE EXPERIMENT

The experiment was conducted from the beginning of an academic year for the duration of one full term, i.e., four months. In order to avoid novelty effect on the pupils, the investigator who was to teach the experimental group was introduced as a teacher newly appointed in the school. Before starting the actual experiment, a pretest in the academic subjects and certain other psychological measures were administered. The organization of activities were thought out keeping in view the objectives of the study. These activities were integrated with

the regular classroom work in such a way that the classroom schedules were not disturbed. These activities were not only meant for the psychological development but the ultimate aim was to increase the academic performance also. The assignments and the tests for each unit in all the subjects which were prepared before the experiment, were administered simultaneously to the experimental as well as the control groups.

#### V.4 THE RESULTS

As has been mentioned earlier, this experiment has been conducted with two major objectives in view, namely, to study the effect of psychological education inputs on academic performance and to study its effect on psychological development of the pupils. Accordingly, the results of the study will be presented and discussed under different heads.

##### 4.1 Changes in Academic Performance

Effects of the treatment on academic performance has been studied by comparing the mean scores of the experimental and the control groups on various tests administered during and after the experimentation. These tests have been given in Appendix A.

##### (a) Changes During Experimentation

Mean scores on different unit tests have been presented in Table 3.



FIG. 3 MEAN SCORES ON DIFFERENT UNIT TESTS

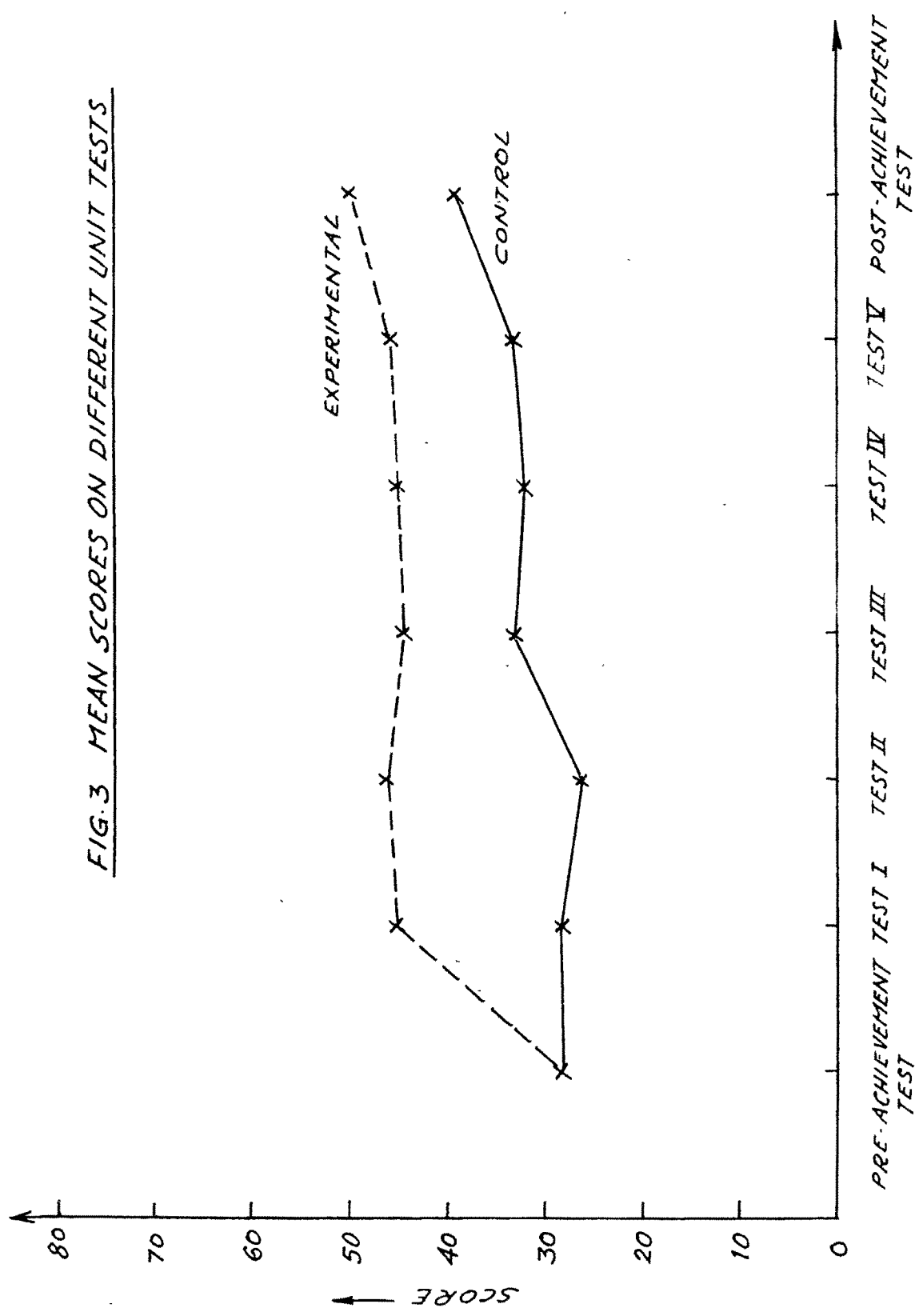


TABLE 3  
Mean Scores on Different Unit Tests

Tests	Experimental (N = 40)	Control (N = 40)
Pre-test	28	28
Test I	45	28
Test II	46	26
Test III	44	33
Test IV	45	32
Test V	46	33
Immediate Post-test	50	39

Results in Table 3 provide a comparative picture of the trend of changes in mean performance of the two groups from pre-test through immediate post-test.

It can be observed from Table 3 that in the pre-test, both the experimental and the control groups have the same mean score. Thereafter, the trend shows a definite increase in the mean scores for experimental group in almost all the tests. In the control group also the mean score rises but compared to experimental group it is not substantial. The trends of performance in the two groups are clearly reflected in Fig. 3. It can be noted that in the experimental group there has been a large increase right in the beginning and the increase is gradual thereafter. However, the rise achieved in the beginning has been well sustained throughout the period of experimentation. The control group also shows an increasing

trend in their performance. But from Fig. 3, it may be observed that the changes have not always been positive. Moreover, although there has been a rise in the mean performance of the control group towards the end, the magnitude of the increase is not comparable with that of the experimental group. From this, it may be concluded that the psychological education treatment given to the experimental group had uniformly positive effect on the academic performance. This could not be achieved in the control group which was taught by conventional procedures.

(b) Immediate Effects

The overall effect of the treatment on academic performance has been studied by testing the significance of the mean difference in the scores obtained by the two groups on the immediate post-test. Mean scores of the two groups on the immediate post-test have been given in Table 4.

TABLE 4

Mean Performance on Immediate Post-Test

	Experiment	Control	S.E.	df	t-value
Post Performance	237.87	194.01	44.91	77	4.37**

\*\* Significant at 0.01 level

It may be observed from Table 4 that the mean scores of the two groups in the immediate post-test differ significantly in favour of the experimental group. In other words, it

supports the hypothesis that the psychological education inputs will result in an increase in academic performance.

(c) Long Range Effect

A common question that arises in respect of any experimental treatment is "Do the effects of the treatment last long or do they wear off with the passage of time?". This question becomes crucial when one considers the propriety of adopting a new approach in place of one that is already in use for a long time. An answer to this question has been obtained in the present study by comparing the performance of the experimental and the control groups on two delayed post-tests. Mean scores for the two groups on the two delayed post-tests, namely, the terminal test and the annual examination are presented in Table 5.

TABLE 5

Mean Performance on Delayed Post-Tests

Variables	Experimental group	Control group	S.E.	df	t-value
Terminal test	154.91	129.52	44.54	77	2.55*
Annual Examination	188.92	172.08	24.63	77	3.06**

\* Significant at 0.05 level

\*\* Significant at 0.01 level

It may be seen from Table 5 that the differences in the mean scores of the two groups are significant in respect of

both the delayed post-tests. This shows that the effect of the treatment on academic performance is quite enduring. Certain other important points may be mentioned in this context. Firstly, the contents covered in the two delayed post-tests included several topics in addition to what was thought during the experimentation in all the subjects considered. This goes to show that the effect of the treatment was not superficial and limited to the content delivered during the experimentation. Instead, the treatment had a substantial transfer effect to other topics also indicating that the psychological characteristics induced through the treatment became permanent features of their way of working. Secondly, it may be recalled that for the purpose of experimentation the pupils in std. VII who constituted the total sample, were divided into two matched groups. However, immediately after the experimentation this arrangement was changed and the pupils were regrouped into two based on totally different consideration. Thus, the social structure of the groups were completely changed. It is interesting to note that inspite of this basic change in the social environment, pupils, who originally belonged to the experimental group performed significantly better than the rest on both the delayed achievement tests.

It may be concluded from this that the effects produced in the pupils through the experimental treatment were well internalized and were not affected by the changes in the social structure of the groups in which they studied. These findings regarding the effects of the psychological education inputs show

that the treatment had significantly positive effects on academic performance. Further, they show that the changes brought over in the pupils were not just at the external behaviour level. Rather, the effects were deep rooted and the treatment led to permanent changes in their habits of working and living.

The findings of the present study regarding the effects of inducing specific psychological characteristics on the academic performance of the pupils are similar to those reported by several other researchers. The research results of McClelland (1968), deCharms (1968), Kolb (1968) and Alschuler (1973) indicated that achievement motivation development increases the performance of the pupils. Also, Mehta (1969) and Desai (1970) have reported that the treatment affected the performance of the pupils positively.

#### 4.2 Changes in n-Ach., Adjustment, Classroom Trust, Test Anxiety and Initiative Level

Of the several variables considered in the study, five variables, namely, n-Ach., Adjustment, Classroom Trust, Test Anxiety and Initiative Level were measured through objective tests at the pre experiment and post experiment stages. Mean scores in pre-test and post-test for these variables are presented in Table 6.

**FIG. 4 MEANS AND SDS OF THE PRE-TEST AND POST-TEST SCORES IN EXPT. GROUP FOR THE VARIABLES- N-ACH, ADJUSTMENT, CLASS ROOM TRUST, TEST ANXIETY AND INITIATIVE LEVEL**

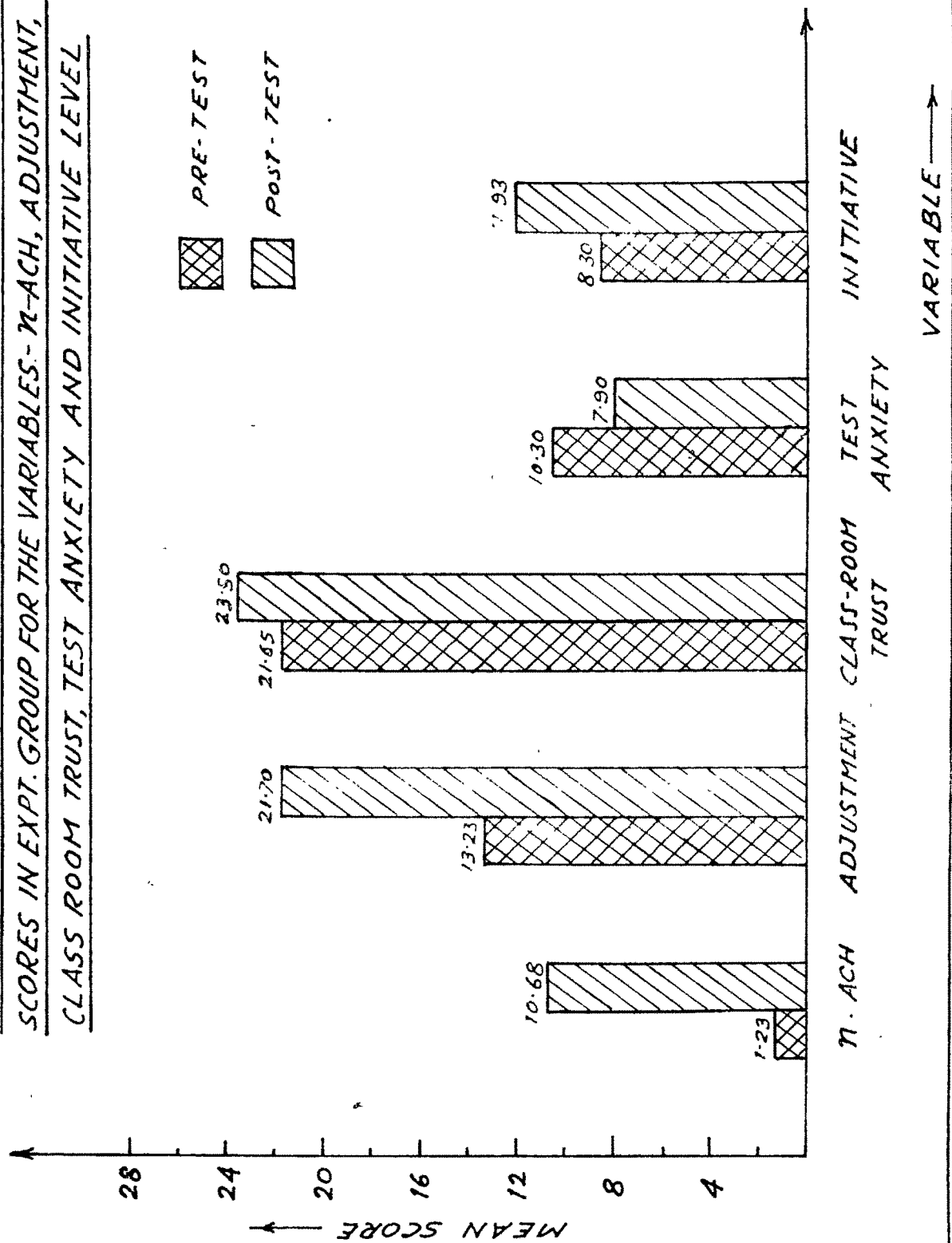


TABLE 6

Means and SDs of the Pre-Test and Post-Test  
Scores in Experimental Group for the Variables  
- n-Ach., Adjustment, Classroom Trust, Test  
Anxiety and Initiative Level

Variables	Pre-Test		Post-Test		df	t-value
	Mean	SD	Mean	SD		
n-Ach.	1.23	2.08	10.68	9.41	78	6.20**
Adjustment	13.23	8.51	21.70	9.26	78	4.26**
Classroom Trust	21.65	3.14	23.50	3.02	78	2.68*
Test Anxiety	10.30	5.82	7.90	3.75	78	2.19*
Initiative Level	8.30	4.06	11.93	4.04	78	4.00**

\* Significant at 0.05 level

\*\* Significant at 0.01 level

It can be seen from Table 6 that there is significant difference between pre- and post-test means for all the variables. The difference is significant at 0.01 level for the variables n-Ach., adjustment, and initiative level. For the classroom trust and test anxiety the difference is significant at 0.05 level.

The results show that after the treatment the pupils showed high n-Ach. level, better adjustment, more classroom trust, decreased test anxiety and higher initiative level than before.

#### 4.3 Changes in Goal Setting Behaviour

Mean supposition and obtained scores along with the mean



discrepancy scores taken at six different points of time during the experimentation have been presented in Table 7. The same has also been presented graphically in Figs. 5 and 6.

The different points of time were fairly equidistant as they were tagged to the periodical tests.

TABLE 7

Mean Supposition, Goal Obtained and Discrepancy  
Scores in the Experimental Group

Test	Supposition	Goal obtained	Discrepancy
I	56	46	4.32
II	55	45	3.97
III	50	43	2.91
IV	46	42	2.81
V	45	41	2.65
VI	49	48	2.29

It can be seen from Table 7 that the discrepancy was very high when pupils supposed the marks for the first test or rather earlier tests. At the end, the discrepancy between these two scores were much smaller as compared to initial stage. It suggests that in the beginning when the pupils were not aware of their abilities they used to suppose higher marks so that there were larger gaps between their supposition and obtained scores. But, gradually when they became aware of their abilities, the gap decreased and the goals became more realistic.

FIG. 5 MEAN GOAL SUPPOSITION  
AND SCORE OBTAINED

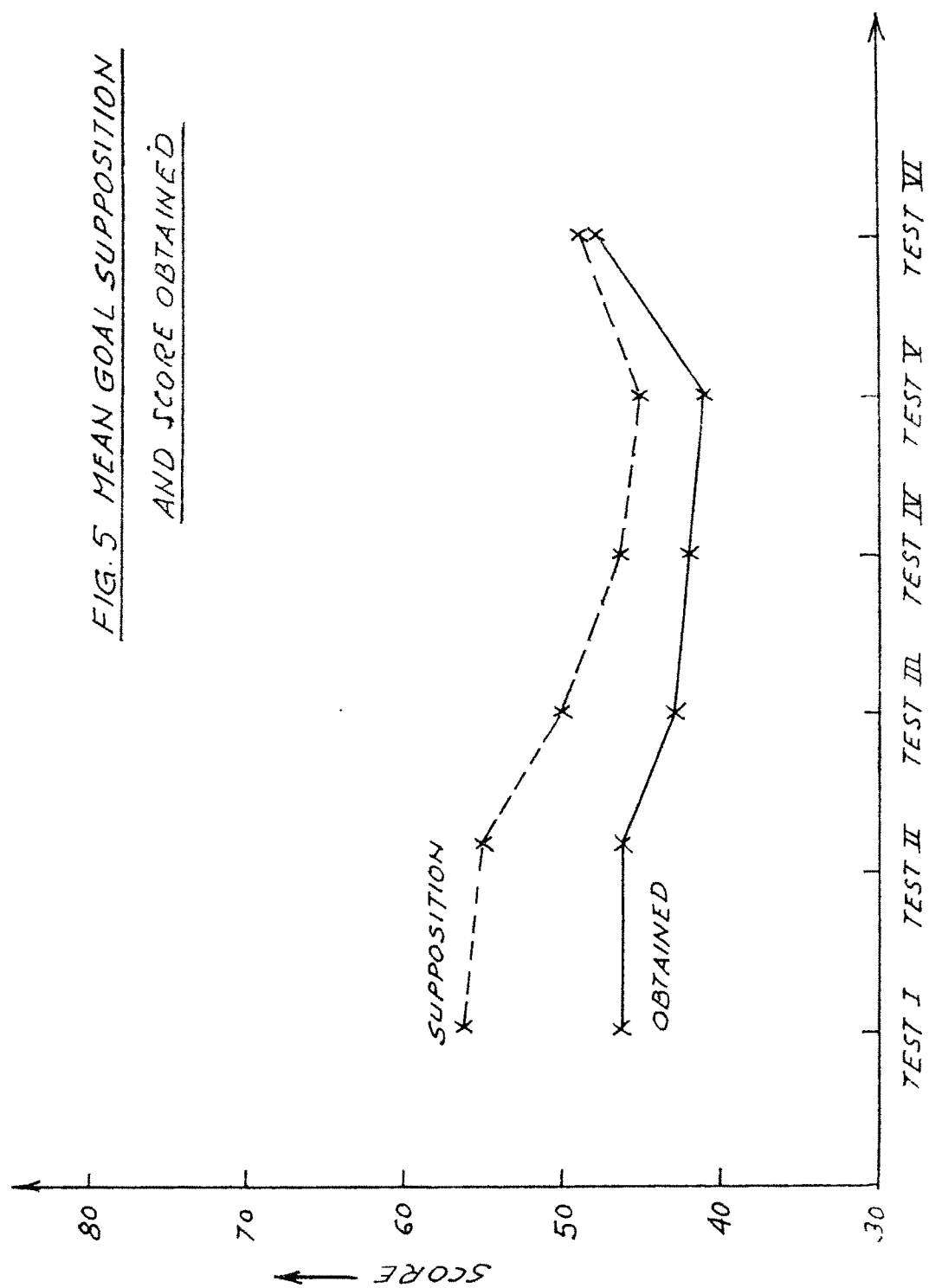
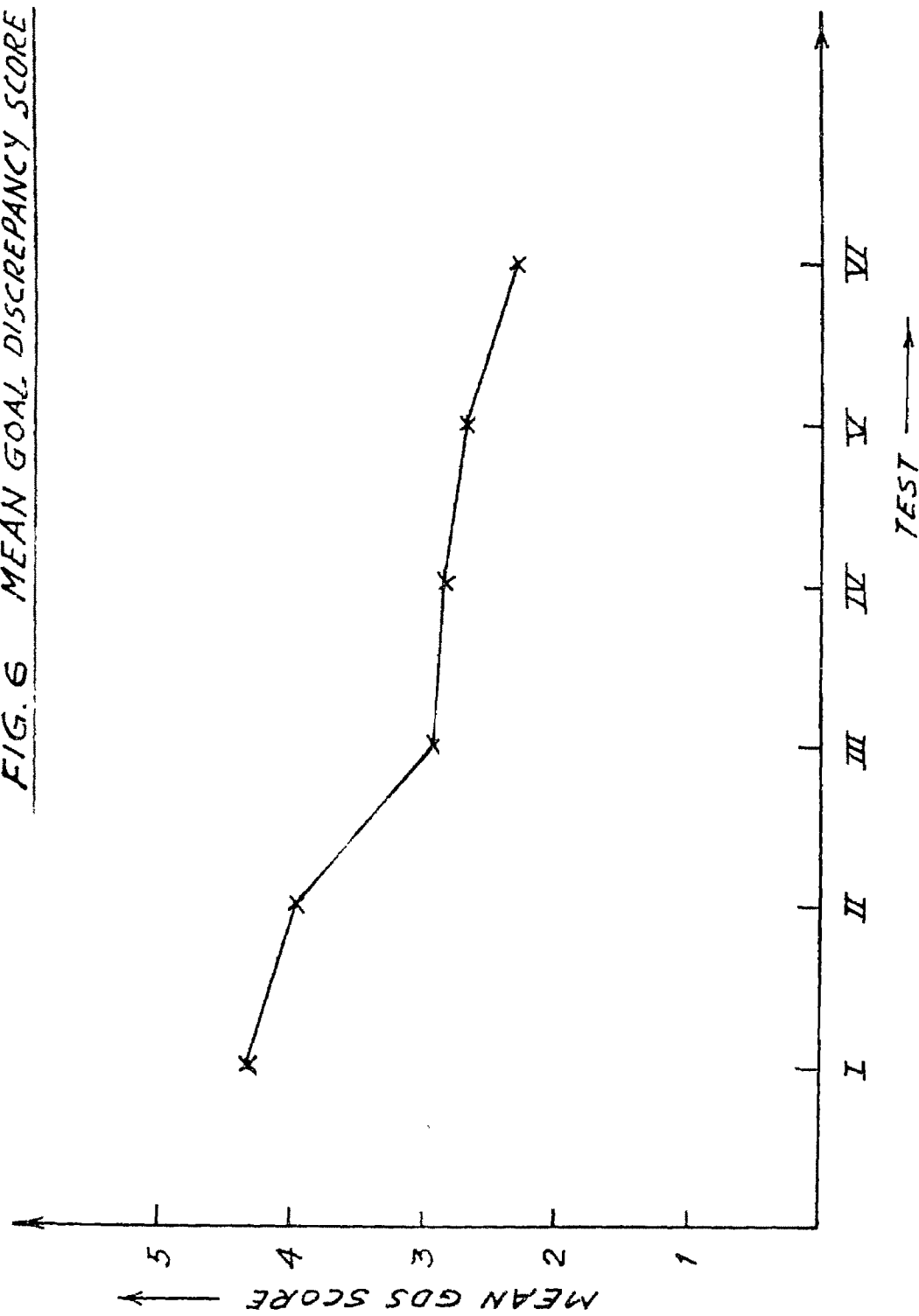


FIG. 6 MEAN GOAL DISCREPANCY SCORE



Graphically presentation of the results (Fig.6) clearly indicates a sharp fall in the discrepancy score in the beginning. At later stages the fall is gradual and the goal supposition behaviour of the pupils appears to have got stabilized towards the end of the experiment.

The block building game was played thrice as pre-post measure in goal-setting behaviour.

TABLE 8

Mean Pre-Post Scores on Block Building Game

Test	Positive Treatment		Discrepancy	Negative Treatment		Discrepancy
	Supposed	Obtained		Supposed	Obtained	
Pre	6.90	7.55	2.85	6.70	5.90	2.45
Post	6.62	6.75	1.82	6.20	5.76	1.38

It can be observed from the Table 8 that the discrepancy is less in post-test compared to pre-test score. It means that pupils manifested more realistic goal-setting behaviour in their post-performance. This corroborates the results presented earlier with regard to the goal-setting behaviour in case of academic tests.

#### 4.4 Change in Risk-Taking Behaviour

Ring toss game was played as pre-post measure in risk-taking behaviour. Table 9 presented frequency distribution of the distance chosen by the pupils.

TABLE 9

Frequency Distribution for the Ring Toss.  
Game

Feet	1	2	3	4	5	6	7	8	9	10
Pre-Indi.	2	6	5	5	15	2	4	1	-	-
Pre-Group	-	5	25	5	5	-	-	-	-	-
Post-Indi.	-	12	17	11	-	-	-	-	-	-
Post-Group	-	13	20	7	-	-	-	-	-	-

In the beginning, they selected the extreme distance. Their distance were more of the intermediate range than extremes at their post performance. The results presented indicate that the pupils manifested more moderate risk-taking behaviour towards the end.

#### 4.5 Changes in Activity Level

Activity level of each pupil was measured at five different points of time during the experimentation in order to study the trend of change in activity level. Mean activity level for the experimental group during the five measures have been presented in Table 10.

FIG.7 MEAN ACTIVITY LEVEL SCORE

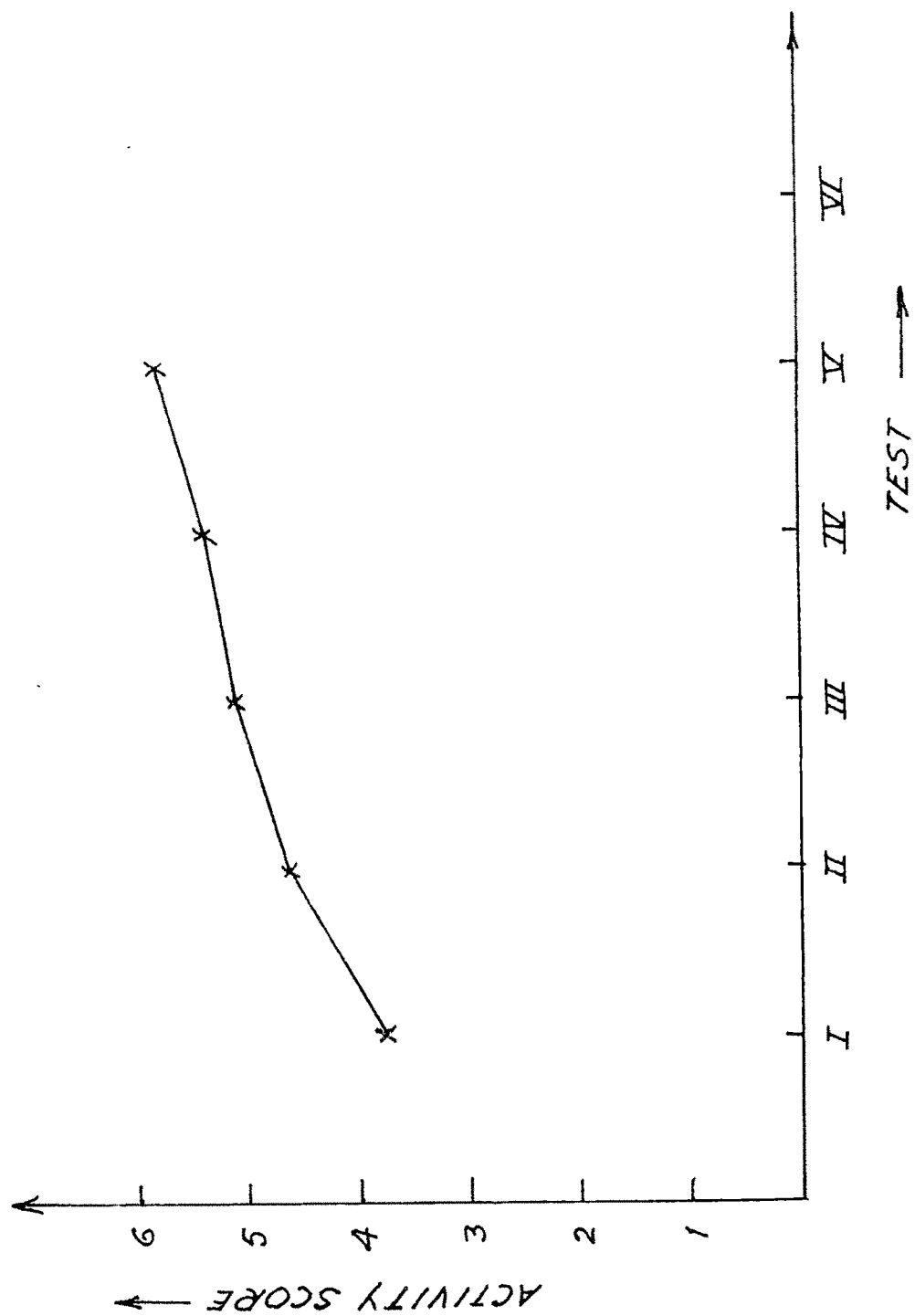


TABLE 10  
Mean Activity Level Scores

Test	Mean Activity Score
I	3.95
II	4.65
III	5.10
IV	5.35
V	5.83

Results presented in Table 10 indicate a gradual change in the activity level of pupils. The pupils began to take initiative in the class.

Their participation increased and showed marked changes in their behaviour towards the end of the experiment. These results have also been presented in Fig. 7.

#### 4.6 Changes in Social Relationships

Two indices of social relationships, namely, sociometric index and classroom integration index were obtained through the technique of sociometry. Measurement was made thrice during the course of experimentation. The three sociograms have been presented <sup>in Appendix B7.</sup> Indices of social relationships, namely, sociometric index and classroom integration index obtained under the three measurements have been given in Table 11.

TABLE 11

## Indices of Social Relationship

----- Classroom Integration Index -----	
I	45
II	38
III	25
=====	

The results presented in Table 11 clearly indicate a positive change in the integration index from the first to the third administration. It suggests that the classroom became more integrated towards the end of the experiment as a result of the decrease in the number of isolates and overchosen.

#### 4.7 Changes in Pupils' Perception and Related Aspects Measured Through the Semi-Projective Technique

It was noted earlier that a series of semi-projective measures were employed to observe the changes in certain aspects of the pupils' psychological domain of behaviour. Main objective of all these measures was to study the changes in the pupils' perception of the self and his environment from different angles. The changes were observed by making a content analysis of the pupils' pre-post writings on the various items. Changes observed by this means have been discussed below. Under each head the



pre-post writings of the five randomly chosen students have been presented. However, the discussions that follow these presentations are based on a comparative analysis of the contents of the pre-post writings of all the pupils included in the experimental group.

(a) Changes in Self Image

In order to observe changes in the pupils' self-image, they were made to write on the item "Who am I?". The item specifically tries to measure the changes in the pupils' ability to identify themselves as individuals with unique set of interests, capacities and ambitions for future life.

WHO AM I?

Pre

Post

(Uncertain — Definite goal perception)

1. My name is Mitesh. I want to become either a doctor or an engineer. I will be regular in my studies.

My name is Mitesh. My father is working in a factory. I want to become an engineer. I will get information about engineering from my uncle, who is an engineer. I will learn English, Maths., Science, so that I can get admission in college. I will join IPCL.

2. My name is Ramesh. We are five brothers. I am studying in Raopura School No.1 in Std. Seventh. I will study as much as I can.

My name is Ramesh. I will study commerce. I want to become a great businessman. We have got a cloth shop. Sometimes I sit in my shop, get training for it. I will learn Mathematics. I will talk nicely with my consumers.

- |  |   |
|--|---|
| <p>3. My name is Mahesh. My father is the headmaster in our school. I am regular in my school work. I want to become a doctor.</p>                 | <p>My name is Mahesh. I like our school very much. I will work hard to get admission. I want to become a doctor. I will visit my uncle's dispensary who is a doctor to get information. I will open a big hospital.</p>                             |
| <p>4. My name is Hasmukh. I am in Std. Seventh. I have much interest in playing cricket. I, in my leisure time, play cricket and do home work.</p> | <p>My name is Hasmukh. I am very fond of cricket. I have formed a team, for playing cricket. On Sundays, we use to have match with others. I want to become a Cricketer. I will study upto graduation. Then I will join a cricket team.</p>         |
| <p>5. My name is Krishna. We are four brothers and sisters. I want to join Air force. I will be regular in work.</p>                               | <p>My name is Krishna. I am working very hard, for getting first rank. I want to learn English well, so I learn spelling. I want to become a pilot. I will read magazine and get the information. I will join N.C.C. I want to serve my nation.</p> |
- 

By content analysis the pupils' responses during pre and post experiment stages definite changes could be observed in their perceptions of their own image. In pre-writings pupils tried to identify themselves more in terms of their family background or school. On the other hand, the post-writings reflect clearer and more vivid self images perceived in terms of their interests and abilities. The associations are wider going beyond their family members or school, and are more relevant to their ambition for future life.

(b) Changes in Goal Perception

Two measures, namely, 'What would I like to be?' and 'My aims' were included to observe changes in the pupils' perception of their immediate as well as life time goals. These items specifically try to measure the clarity with which they perceive their goals and the means they visualize for achieving them.

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WHAT WOULD I LIKE TO BE?

Pre	Post
1. I want to become a captain in the army.	I want to become army chief. I have qualities like bravery, noble abilities, etc. I am very regular in my food and exercise. I practise some time for shooting.
2. I want to become either a doctor or an engineer.	I want to become an engineer.
3. I will work in my shop and will help my father.	I want to become a great businessman. I will work hard in Mathematics. I will contact other people who are businessmen.
4. I want to become a teacher in a school.	As my parents are working hard, I will become a teacher. Then I will become a headmaster and will help my parents.
5. I want to become a cricketer.	I want to become a cricketer. I have formed a team. We are practising every day. We have collected a fund. We sometimes play with other people. We have all the materials for playing. In future, I will also join the Indian team.

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## MY AIMS

Pre	Post
1. a. I will read at home.	a. I will learn spellings.
b. I will not harass my teacher.	b. I will prepare myself for the test.
c. I want to join the army.	c. I will become chief in army to serve the nation.
2. a. I will learn at home.	a. I will read story books to get general knowledge.
b. I want to become a doctor.	b. I will work hard in Science and Mathematics.
	c. I want to become a well-known doctor.
3. a. I will go to my friend's place.	a. I will read for the test.
b. I want to become something.	b. I will collect pictures for the project work.
	c. I will become a great businessman.
4. a. I will play after the school hours.	a. I will read story books for the project.
b. I will do home work.	b. I will prepare myself for debate competition.
c. I want to become an engineer.	c. I want to become an engineer.
5. a. I will draw some pictures.	a. I will take part in painting competition held in Kamati Baug.
b. I want to become a painter.	b. I will practise for it.
	c. I want to become a great painter.

It may be observed from the pre-writings that the pupils were very vague as to what they plan for their future. For instance, a boy writes, 'I want to become something'. As to the short term goals they are just task related mentioning what they want to do rather than being achievement oriented. On the other hand, the post-writings reflect a positive change in their perception regarding their short term as well as long term goals. The short term goals mentioned are all achievement oriented. For instance, the boy who wrote 'I will draw some pictures' in the pre-test wrote the same in post-test as 'I will take part in painting competition and I will practice for it'. As to their long term goals, they are clearer and have been able to spell out the actions they would take. The post-writings clearly show the development of a general concern for excellence among all the pupils: The boy who has written 'I want to go to army', in the pretest, writes 'I will become chief of the army to serve the nation'; the boy who has written 'I want to become something' earlier writes later on, 'I will become a great businessman'.

(c) Changes in the Perception of the Role of Self in Relation to School

The item, 'Myself and My School' was used to measure changes in the pupils' perception of their role in the school. It is to see whether the pupils would develop through the experimental treatment a clearer understanding of their place in relation to their teachers, norms of school behaviour and the

various academic and non-academic activities.

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#### MYSELF AND MY SCHOOL

Pre	Post
1. School activities, cleanliness, competition, etc.	School - weekly tests, chart preparation, Science practicals and competition, etc.
2. School ground, trees, classroom.	Group activities - story telling, games, mark supposition, assignments, etc.
3. School teachers, they are kind.	I like school activities, prayer, doing assignments, learning spellings, homework.
4. I like school playground which is very big.	I like to be regular in school assignment, being group leader and helping my classmates.
5. I like school as it provides milk and bread.	I like to work in a group, spelling game for learning spellings, debate competition, etc.
	I like school where I get chance to speak in the class, I get chance to sit in the first bench and work with other people.

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Analysis of the pre-writings show that the pupils did not have a comprehensive view of the school and their own roles. They almost uniformly wrote about the physical facilities at the school; some wrote about their sentiments towards their teachers but did not recognize the teacher learner relationship. On the other hand, the post writings indicate a significant change in their responses. They could clearly see their role as learners placed in a specific environment. Each pupil in one way or the

other, referred to the various academic and non-academic activities and his liking to take part in them. Some of the pupils saw school as the place for developing and demonstrating their leadership abilities; some others wrote that it gives a chance for them to express themselves. Almost  $\lambda$  all perceived school as a place of social interaction among the pupils.

(d) Changes in the Perception of Teacher's Role

Changes in the pupils' perception of the rôle they expect their teachers to play was studied through the item 'What type of teachers do you like?'. The purpose of this was to find out the extent to which they perceive their teachers in a proper perspective.

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WHAT TYPE OF TEACHERS DO YOU LIKE

Pre	Post
1. Teacher, who shows affection to us.	Teacher, who teaches us nicely.
2. Teacher, who does not beat us.	Teacher, who teaches effectively and uses play-way method.
3. Teacher, who takes us for playing.	Teacher, who asks questions in the class, makes us sit on first bench and attends to us.
4. Teacher, who does not give more homework.	Teacher, who will make us work in group, give assignments.
5. Teacher, who understands us.	Teacher, who understands and knows us, gives guidance for getting higher marks.

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The pre-writings in response to the question 'What type of teachers do you like?' indicate that the pupils tended to perceive the teachers more as parent substitutes than as independent individuals in carrying out certain specific academic activities in the school. Further, the statements, such as, 'Teacher, who does not beat us', 'Teacher, who does not give more work' indicate the existence of a negative sentiment attached to the work of the teacher in the school. The post-writings however, show a positive shift in their perception of the teachers' role. They began recognizing the teacher in his academic role as a competent person who could help and guide them learn. It is important to note that none of the post-writings reflected any negative sentiment to the teacher's work in the school.

(e) Changes in Attitude Towards School

Word Association technique was adopted to find out whether there had been any change in the attitude of the pupils towards school. The test included six words namely, school, teacher, peers (classmates), classroom, blackboard, and bell, which were considered to be quite relevant to the school context. The words were announced one by one in the class. Pupils were supposed to write a line or two in response to each word announced.



## WORD ASSOCIATION TEST

## Pre

## Post

1. School: Our school is big with a big playground.

Teacher: We have a good teacher.

Peers: I like to make friendship,

Classroom: We have blackboard in our classroom.

Blackboard: Without blackboard, we cannot learn.

Bell: I am happy when the bell rings.

2. School: I like my school in which fan, light and ground are there.

Teacher: We listen to our teacher peacefully.

Peers: My friends give me whatever I ask.

Classroom: In our class, windows and doors are there.

Blackboard: I like the black colour of the board.

Bell: When bell rings we go home.

3. School: I go to school every day.

The school is meant for learning. I go to school to learn.

Our teacher gives us knowledge - academic as well as non-academic.

My classmates are very enthusiastic and ambitious. They are hard workers.

We learn in the classroom.

Teacher writes questions on the blackboard and makes us understand.

We use the bell when a period is over.

I like my school for learning.

My teacher encourages us to work hard independently.

We work in a group. I like it very much.

I like the classroom arranged in groups. I like to work in such an arrangement.

The assignment written on the board helps us for better learning.

It reminds us of time.

I like school very much. I like to learn English.

Teacher: Our teacher is very strict.

Our teacher teaches us very nicely, makes us understand the things.

Peers: We play with our friends.

I like my class-fellows who help me in learning those things which I cannot learn myself.

Classroom: My classroom is near our headmaster's Office.

I like to sit and work with bright student so that I can also work hard.

Blackboard: We make our board always clean.

I like to write on the board when asked by the teacher.

Bell: It is very useful.

The bell rings when the period changes.

4. School: We get milk and butter in school.

I like to go to school and make progress.

Teacher: I like the teacher who does not beat us.

I like my teacher very much. We get interest in learning.

Peers: Many pupils do not study in the class.

I like my classmates who score highest marks in all the subjects.

Classroom: I like to make my class clean and neat.

It is very interesting to learn in two groups. When one group asks questions and another group has to give answer and to compete with other group.

Blackboard: We write down whatever teacher writes on the board.

Teacher draws figures on the board and helps us to understand.

Bell: The bell is always there in our school.

The bell rings for the changing of the period.

5. School: My school's name is Kumar Shala No. 1.

I like to work hard in the school.

Teacher: I do not like the teacher who scolds us very often.

The teacher asks us to suppose the marks before the test, so we get good marks; like to work hard.

Peers: My classmates are very kind.

In the recess we ask spellings to each other.

Classroom: We do prayer in the classroom.

In the group period I like to work and do my work first.

Blackboard: Our blackboard is very small.

We discuss the questions first written on the blackboard, then we write down in our notes.

Bell: Mahesh always rings the bell.

The bell is very useful to remind us about the timings.

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Pre-writings in response to the word 'school' show that the word did not evoke any emotional reaction in the pupils. They have almost uniformly given only physical description of the school and do not indicate any like or dislike for it. But, the post-writings reflect a definitely positive attitude. Each pupil has almost invariably described the 'school' as the place for learning; and explicitly state that they like to work at school.

Pre-writing in response to the word 'teacher' show that it evoked in many cases a negative feeling which is clearly implied by such statements as 'our teacher is very strict', 'I like the teacher who does not beat us', 'I do not like the teacher who scolds us often' and so on. On the other hand, in the post-writing, none of the pupils indicate any aversive feeling to the teacher. Almost uniformly they recognize the teacher as a person who helps them in learning.

Pre-writings in response to the words 'peers', 'classroom', 'Blackboard' and 'Bell' are not indicative of any attitude towards school work. Many have referred to the physical aspects of them - "My classroom is near our headmaster's office", "We make our board always clean", "We have blackboard in our classroom", "Without blackboard we cannot learn", and so on. But the post-writings largely relate these words to the learning process and recognize their role and use. Some of the pupils have explicitly expressed their liking for classroom organization and activities which is indicative of their favourable attitude towards school.

On the whole, it may be said that the stimulus words evoked, in the pre-experimental stage, responses which were indicative of either a neutral or negative attitude towards school and school work. But, the post-writings uniformly reflected a favourable attitude towards school and an expressed liking for school work.

(f) Changes in Images for Emulation

The item 'Steps of honour' was used to observe changes in the ideal images the pupils set themselves to emulate. Here the pupils were to point in order a few specific personalities who they like most and also advance reasons for the same. The following excerpt from their writings only the first chosen personalities in the pre and post-experimental stage.

## STEPS OF HONOUR

Pre	Post
1. I like my mother as she has given birth to me.	I like my teacher as she teaches us very nicely.
2. I like my sister as she serves the food nicely.	Gandhiji, as he is the believer of truth.
3. I like Vijay, because he does not quarrel with me.	I like Mahesh, as he makes me understand the sums in Mathematics.
4. My mother, who saves me from the difficulties.	Gandhiji, Sardar Patel, Bhagat singh, who have good qualities.
5. My parents, I like.	Nilesh, who speaks truth.

It could be observed that the pre-writings refer mostly to their own family members. This shows that the pupils have had a very limited perspective into the world of images, they could try to emulate. The reasons advanced also refer mostly to the physical comforts they obtained from these relatives. On the other hand, the post-writings clearly indicated a broadening of their perspective and vision. They referred to a wide variety of images which included friends and teachers who belonged <sup>to</sup> their immediate environment as well as such distant and historical figures as Gandhiji, Sardar Patel, Bhagat Singh etc. Also the reasons advanced indicated their liking for the excellence of their teachers or friends and for such ideal values such as truth, honesty, patriotism etc. Thus, the

writings point out to an increase in the wealth of images pupils could perceive and a positive change in the ideals they set for emulation.

(g) Changes in Non-Academic Interests

In response to the item 'My Leisure Time', pupils were to write on what they generally do during leisure hours. The purpose of this was to study the changes, if any, in the non-academic interests of the pupils that took place during the experimentation.

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MY LEISURE TIME

Pre	Post
1. I play and do work in leisure time.	I do my assignments, help my mother and play with my friends. I read story books.
2. Before I come to school, I play with my friends.	I do home work, learn spellings, practise cricket because I want to become a cricketer.
3. I do home work, chitchat with my friends.	I do my assignment, project work assigned to me, and read story books.
4. I visit my friend's place.	I learn my homework.
5. I help my mother.	I help my mother and read homework.

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Comparative analysis of the contents of the pre and post-writings do not indicate major changes in the activities that the pupils engaged themselves in during their leisure time. However, most of them wrote in the pre-experiment stage

that they play during their leisure time or go to the friends and spend their time. As opposed to this in their post-writings many of them mentioned that they read story books. This indicates that their area of interests got widened as they could discover that playing and talking to friends were not the only way of spending their leisure time.

The results of the present study discussed here under the three heads, namely, (i) changes in academic performance; (ii) changes in n-Ach., adjustment, classroom trust, initiative level, test anxiety, and activity level; and (iii) changes in perception and related aspects measured through the semi-projective technique. These results clearly indicate the positive and significant change in academic performance and the other variables mentioned above.

Regarding the changes in their perception which has been analysed through pupils' responses suggest a positive change in their perception about themselves, their short term and long term goals, school and teachers in their post-writings. In short, the post-writings uniformly reflected more achievement oriented thinking.