CHAPTER – 5

SUMMARY, FINDING, CONCLUSION, DISCUSSION AND SUGGESTIONS

CHAPTER - V

SUMMARY, FINDING, CONCLUSION, DISCUSSION AND SUGGESTIONS

CHAPTER - V

SUMMARY, FINDING, CONCLUSION, DISCUSSION AND SUGGESTIONS

5.1 INTRODUCTION

It has to be noted that primary schooling is the single most important delivery channel of initial education for most children. For many, it is the only opportunity of initial education as more than 36 per cent of children drop-out at the end of primary schooling and 56 per cent at the end of eight years of schooling. And these are children of the poor and a majority of them are girls. Primary education is an important stage in the educational ladder, that caters the basic learning needs of these children as helping them to read, write, communicate through speech and hearing, carry out simple mathematical operations. Basic learning needs also include understanding of basic facts, rules, practices and skills with respect to health, hygiene, nutrition, housing, sanitation, the physical and social environment, participation in production processes and using natural and environmental resources. Further, children need to learn skills of discussing, analysis, choosing, deciding, working together, critical thinking, and understand their rights, develop self-confidence, self-esteem, and self- reliance. This is what primary education is all about, a self-sustaining, self-contained and self-sufficient learning experience for all children. And, primary teacher education has to develop the capability in teachers to translate these basic education objectives into appropriate learning experiences for children.

Primary stage being a foundation stage of education setup of a child and may be the one and only one opportunity of getting education for many Indian citizens, possess a greater value. But, alongwith the enough provision of schools, enrolment and retention, the question of quality education has still remained

unsolved. It is fact, that the quality and extent of learner achievement are determined primarily by teacher competence and teacher motivation. And, ultimately both these aspects indicate the effectiveness of pre-service teacher education (PSTE) provided. The institutions providing pre-service teacher education go by various names-elementary teacher's training institutions, teacher's training institutes, basic training institutes and so on. District Institutes of Education and Training (DIETs) are in most states, the main institutions that prepare elementary teachers. To ensure quality in teacher education national norms have been stipulated : twelveth class pass for entry into the training course, minimum eligibility of 50 per cent marks in the qualifying examination and a two years training for certification.

Issues relating to the quality reform of pre-service teacher education content and processes have not, however, received similar attention. In the early eighties the CAPE (Comprehensive Access to Primary Education) project introduced into the curriculum of elementary teacher education a training cum production mode for providing experience to trainees in developing local specific curricular materials and learning episodes. This was a major breakthrough in the reform of teacher education curriculum. It is also true that states have, from time to time, reviewed the curriculum of pre-service teacher education. The competency based curriculum of PSTE-course, developed in Gujarat is one of the examples of it. But, these have not been able to bring about any significant change in the basic character of the system as such.

To overcome the problem of quality education, the policy document (1986) envisages establishment of DIETs, to organise pre-service and inservice teacher's training programmes. Obviously, the improvement of quality in primary education will, to a large extent, depends on quality of pre-service teacher education and the innovations in the field of education. Looking to the fact, that

'Creativity' alone can infuse the spirit of innovations and providing quality based education, advance countries, are definitely interested in the study and developmentof creativity as are the third world countries whose survival depends upon the creative vision and creative striving of the mass (Raina, 1980). It has generally been realised today by all nations, that their mere existence very much depends upon, how effectively they can conserve and utilise their most precious human resources. Now - a - days, it is a matter of growing concern, that the creative spark in children be identified, conserved and developed by all means. Hence, the development of creativity, which has neglected so far, should be incorporated in the objectives of education at all levels. It should be given a more prominent place in the scheme of the hierarchy of educational objectives.

Looking to the above reality, even in the present stage and increasing awareness about the importance and the major thrust on the ways and means of creativity development, the present study has been conducted. Also, the present investigation has focussed on preparation of a creativity programme for the Pre-service Teacher Trainees (PSTTs) at primary level so as to meet the demand for a creative teacher, who, in turn can identify, nurture and develop the creativity of the students on a large scale in future. Simultaneously, that would be helpful in improving the quality of primary education, too.

In the light of the above, the present investigation has focussed on studying the effectiveness of the prepared creativity programme and the problem is entitled as:

5.2 STATEMENT OF THE PROBLEM

PREPARATION OF A CREATIVITY PROGRAMME FOR PRE-SERVICE TEACHER TRAINEES AT PRIMARY LEVEL AND A STUDY OF ITS EFFECTIVENESS.

5.3 OBJECTIVES OF THE STUDY

The study has been carried out with the following objectives :

1. To construct and standardize a creativity test for Pre-service Teacher Trainees at primary level.
2. To identify the creativity level of Pre-service Teacher Trainees at primary level.
3. To prepare a creativity programme for Pre-service Teacher Trainees at primary level.
4. To study the effectiveness of creativity programme with respect to :
   a) creativity components ;
   b) caste category ; and
   c) academic stream.

5.4 HYPOTHESES

Ho1 : There will be no significant difference in the mean creativity score of the experimental group and the control group.

Ho2 : There will be no significant difference in the mean fluency score of the experimental group and the control group.

Ho3 : There will be no significant difference in the mean flexibility score of the experimental group and the control group.

Ho4 : There will be no significant difference in the mean originality score of the experimental group and the control group.

Ho5 : There will be no significant difference in the mean elaboration score of the experimental group and the control group.

Ho6 : There will not be any differential impact of the creativity programme on the

PSTTs of different caste category in terms of mean creativity score.

Ho7 : There will not be any differential impact of the creativity programme on the PSTTs of different academic stream in terms of mean creativity score.

5.5 METHODOLOGY

The methodology adopted in the present study to achieve the stated objectives has been described in brief as follows :

5.5.1 Experimental Design and Procedure

The present investigation was a **'Pre-test Post-test design'.** The procedure of data collection for the present study was carried out in three phases, the details of which have been described below.

Phase - I

During this phase, the creativity test was administered as a pre-test to all the PSTTs of both the experimental and control groups, to identify their creativity level in accordance with its components.

Phase - II

In this phase, the creativity programme was implemented to the experimental group only, in terms of a treatment for total 76 hours, during 45 days as per the prepared schematic presentation.

Phase - III

During this phase and after completion of the treatment to the experimental group, the same creativity test was administered to both the groups as the post - test.

5.5.2 Sample

The sampling method used in the present investigation was purposive. The sample for the present study was formed, from the population group of PSTTs, who were studying in the first year PSTE - course in DIETs. In the present study, as the tool to identify the creativity level of PSTTs was to be constructed and standardized, which was phase - I of the study; it demanded two sets of sample, for the standardization of the tool. The phase - II of the present study dealt with studying the effectiveness of the creativity programme for which the PSTTs of two different DIETs were selected.

(a) Sample for the Phase - I of the study :

An initial sample of 10 PSTTs, who were studying in the first year PSTE, during 1997-98 in DIET - Kathlal (Dist. Kheda), was obtained for PILOT administration of the tool to identify the creativity level.

For FINAL administration of the tool, the whole class of the first year PSTE (1998-99) of DIET-Vadodara, i.e. 40 PSTTs were selected as the sample.

(b) Sample for the Phase - II of the study :

The total number of PSTTs, studying in the first year PSTE during 1999-2000, of DIETs : Rajpipla (Dist. Narmada) and Santrampur (Dist. Panchmahal) were selected as the sample for the Phase - II of the study. 46 PSTTs of DIET-Rajpipla were treated as the experimental group, whereas 43 PSTTs of DIET-Santrampur were treated as the control group in the present study.

5.5.3. Tools

The following tools were used in the present study.

(i) A test of creativity to identify the creativity level of PSTTs (Constructed by the

investigator).

(ii) A creativity programme (CP) for pre-service teacher trainees at primary level (Developed by the investigator).

(i) Test of creativity to identify the creativity level of PSTTs : (Tool no. 1)

To identify the creativity level of the PSTTs, a test of creativity, in the forms of verbal and non-verbal, was constructed and standardized, as a tool no. 1, by the investigator. The major steps of construction and standardization of the creativity test have been described as follows :

(a) The test items were developed for both the forms of the test, keeping in mind the specific age-group of the PSTTs.

(b) The verbal form of the test included three types of activities namely; Imaginative events, Novel uses of the things and Similarity.

(c) The non-verbal form of the test included three types of activities namely; Picture construction, Picture completion and Circles and Rectangles.

(d) Opinions of the experts in the field, were taken on the test items with regard to their :

- appropriateness ;
- relevance ; and
- capacity to describe creativity in terms of its components viz. fluency, flexibility, originality and elaboration.

(e) The PILOT study was conducted on 10 PSTTs of DIET-Kathlal, Dist. Kheda. For selection of the test-items, item relevance was studied by scoring both the forms of the test and then selected the items as per the criteria given below :

- The test items in which more number of relevant responses were given by the PSTTs.

- The test items in which high score of the key factor originality was achieved by the PSTTs.

- The test items in which high scores of flexibility and elaboration were found.

Thus, out of 57 test items, 31 items were selected for the final form of the test of creativity. Also, time consideration for each activity, standardization of instructions, and necessary informations to be achieved from the PSTTs were finalised.

(f) Psychometric properties of the constructed tool :

The validity and reliability of the constructed tool were estimated.

- **Validity :**

- Logical validity was established.

- Factorial validity was established by computing the coefficient of correlations between the total score on creativity and score on each component of creativity, respectively. The coefficients of four components were ranging from 0.4683 to 0.6590 (Significant at 0.01 level).

- Concurrent validity was established by computing the correlation between the total creativity scores obtained by the PSTTs on Mehdi's (1973) Tests of Creative Thinking and the constructed creativity test, which was found to be 0.5955 (Significant at 0.01 level).

- **Reliability :**

- The reliability of the test as calculated by the split-half method was found to be 0.5915 (Significant at 0.01 level).

Thus, the constructed tool has been standardized by establishing its validity and reliability.

(ii) A creativity programme for PSTTs : (Tool no. 2)

A creativity programme (CP) was specially prepared for the PSTTs at primary level, in Gujarati language. It was based on primary school subjects like Gujarati, Maths, Environmental study, Science, English, Hindi, Social study, Physical education and Yoga, Drawing and Music, and the existing curriculum of PSTE-course in terms of effective classroom interaction, teaching methodology, lesson planning etc., as cardinal position. This programme was in the form of various activities with examples, exercises, and work-shop schedules with relevant reference materials. Out of its total 52 activities, 37 activities were based on activity based approach, whereas 15 activities were based on workshop approach. While developing these activities, the four components of creativity and various techniques for creativity development were kept in mind. The CP was validated with the help of the experts in terms of its appropriateness, relevance, capacity to describe creativity and its components, and applicability in prescribed duration of time. Necessary modifications have been done on the basis of their suggestions.

5.5.4. Procedure for analysis of the data

The collected data in terms of pre and post test's scores on total creativity, fluency, flexibility, originality and elaboration for the experimental and control groups, were analysed through appropriate statistical techniques. To study the difference between the pre and post test's mean scores of total creativity, fluency, flexibility, originality and elaboration respectively, of the experimental and control groups, ANCOVA was applied by taking the pre-test score of the respective variable as a covariate. To study the differential impact of the CP on the mean creativity score of

the PSTTs of different caste - category and academic stream, Two-way-ANOVA was applied.

5.6 SUMMARY OF THE RESULTS

The results of the present investigation with respect to seven hypotheses based on the objectives , are summarised below :

1. There existed significant difference between the mean creativity score of the experimental and the control group. The relatively higher mean score of the experimental group indicated that the experimental group was at a higher level than the control group with respect to the total creativity score.

2. There was significant difference between the mean fluency score of the experimental and the control group. The relatively higher mean score of the experimental group showed that the experimental group was stood higher than the control group with respect to the fluency score.

3. There existed significant difference between the mean flexibility score of the experimental and the control group. The relatively higher mean score of the experimental group indicated that the experimental group was at a higher level than the control group with respect to the flexibility score.

4. There existed significant difference between the mean originality score of the experimental and the control group. The relatively higher mean score of the experimental group showed that the experimental group was at a higher level than the control group with respect to the originality score.

5. There existed significant difference between the mean elaboration score of the experimental and the control group. The relatively higher mean score of the experimental group indicated that the experimental group was at a higher level than the control group with respect to the elaboration score.

6. No differential impact of the creativity programme was found on mean creativity score of the PSTTs of different caste category.

7. No differential impact of the creativity programme was found on mean creativity score of the PSTTs of different academic stream.

8. There existed no significant variation in mean creativity score of the PSTTs of the experimental group due to the interactions effect of caste category and academic stream.

On the whole, it was concluded that the experimental group reacted more favourably after the provided treatment in terms of a creativity programme. Thus, the creativity programme had a differential impact on two groups.

5.7 MAJOR FINDINGS OF THE STUDY

On the basis of the summary of results, the following major findings are arrived at ;

1. The main effect of the treatment in terms of a creativity programme, on PSTTs was significant for the creativity and its components namely; fluency, flexibility, originality and elaboration respectively.

2. There was no significant difference in the mean creativity score of the PSTTs of different caste category, in case of the experimental group.

3. There was no significant difference in the mean creativity score of the PSTTs of different academic stream, in case of the experimental group.

4. No interactions effect of caste category and academic stream was found on the mean creativity score of the PSTTs of the experimental group.

5.8 DISCUSSION AND IMPLICATIONS

It is worthwhile to discuss the findings of the study and their implications for

PSTE course and instructional setting. The discussion and implications of the findings are presented below :

5.8.1 Creativity programme and the creativity level of PSTTs

The first finding of the study showed that the effect of the CP on PSTTs was significant with respect to creativity and its components viz. fluency, flexibility, originality and elaboration respectively. It directly supports one of the established facts by many of researchers in the field of creativity during the last fifty years, that creativity is teachable, educable and can be developed through training. The table no. 5.1 shows the effect of creativity programme.

TABLE No. 5.1

Effects of the CP on creativity and its components

Scores on	Pre-test Mean scores		Post-test Mean scores	
Total Creativity	Exp. Gr.	Con. Gr.	Exp. Gr.	Con. Gr.
	122.71	115.76	205.80	112.42
Fluency	41.13	34.00	60.02	34.21
Flexibility	31.13	28.46	46.80	26.88
Originality	12.02	13.32	37.67	11.93
Elaboration	38.60	39.90	61.30	39.40

It can be observed from the table no. 5.1, that in case of the experimental group, the differences between the mean pre and post test's scores of total creativity, fluency, flexibility, originality and elaboration were 83.09, 18.89, 15.67, 25.65 and 22.70 respectively. This shows that the CP was effective in developing creativity and its components. While in case of the control group, minor differences were found between the mean pre and post test's scores of the total creativity and its

components respectively. Thus, in the same way, the effectiveness of the CP can also be explained with the help of graphical presentation, shown in figures 5.1 and 5.2 respectively.

Figure : 5.1

Mean pre and post test's scores on creativity and its components of the control group

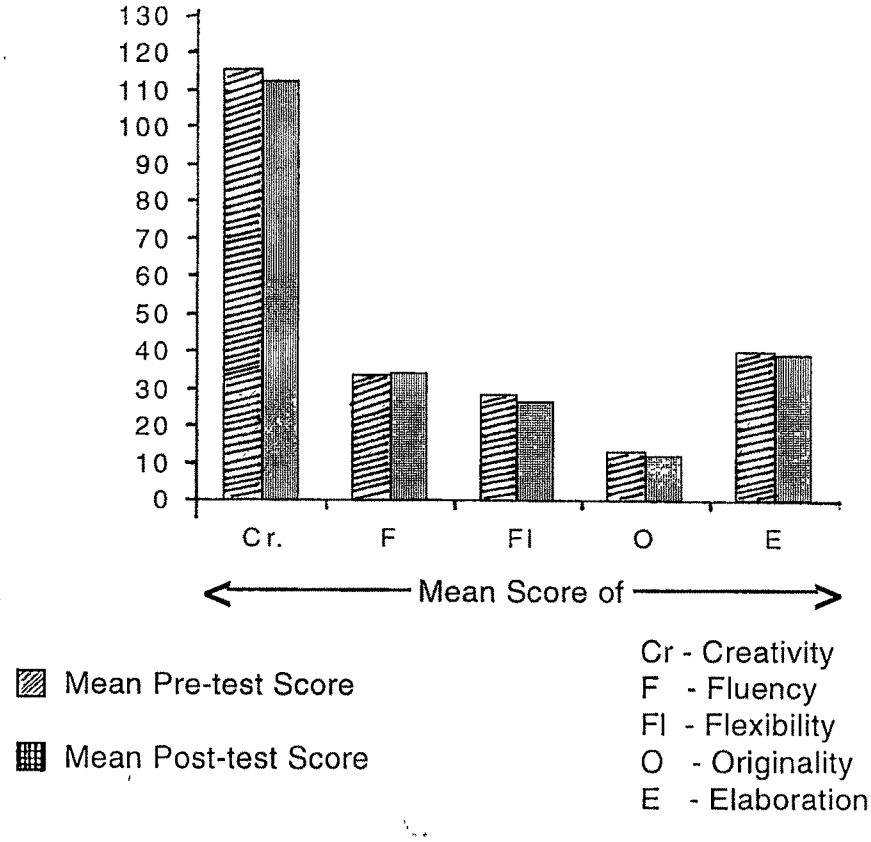
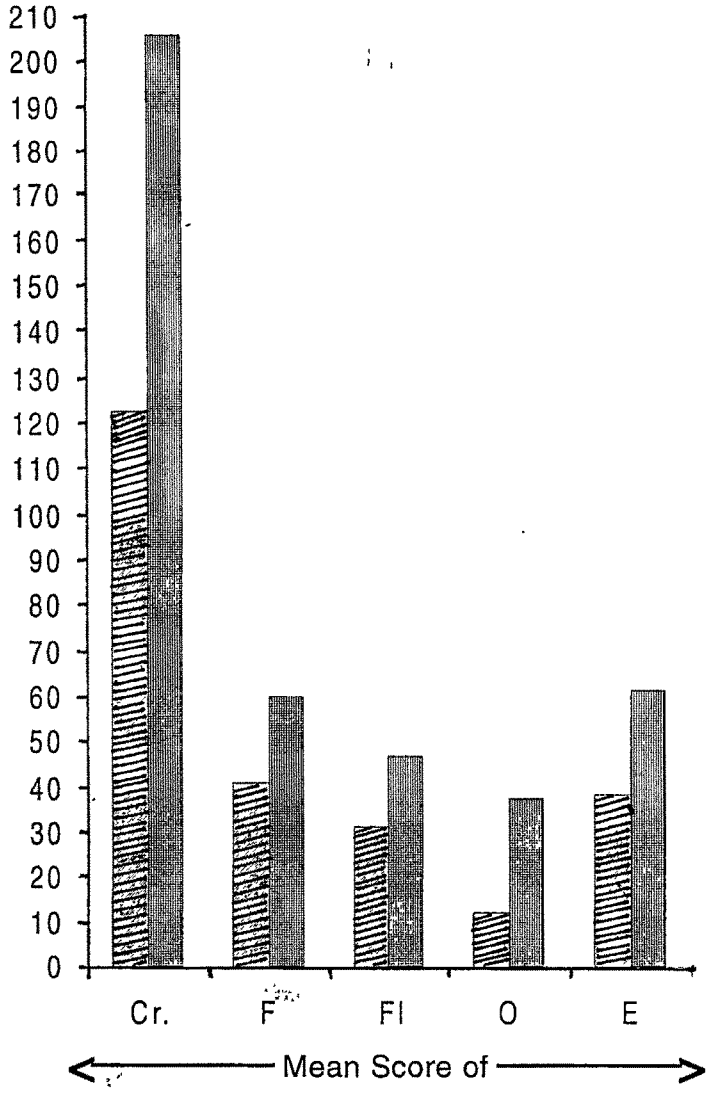


Figure 5.2

Mean pre and post test's scores on creativity and its components of the experimental group



It can be seen from the figure-5.1 that, there is a minor difference between the mean pre and post test's scores of creativity and its components respectively. The little decrease observed in mean scores of creativity, flexibility, originality and elaboration at post test phase, might be due to the absence of

proper treatment. Also, it was observed that many of the PSTTs were not much interested during the post test session as the same test was administered once again. While in case of the experimental group, it can be observed from the figure 5.2 that, there is a remarkable increase in mean scores of creativity and its components at post test phase. This shows the positive impact of the CP in raising the creativity level of the PSTTs. The reasons for observed remarkable increase at post test phase may be due to the following considerations :

- The PSTE course is a compulsory residential training programme.
- The creativity programme was based on all the present primary school subjects and the curriculum of PSTE course.
- Various activities of the creativity programme of the present study were related to various techniques, which have been proved effective for creativity development by many researchers.
- The total time duration for the implementation of the creativity programme was 76 hours, spread over 45 days.
- The creativity programme was implemented with the help of various mentors.
- Exercises under the different activities planned for the present CP, offered a wide scope for divergent thinking.
- The activities of the creativity programme were interdisciplinary and have relevance with the instructional setting.
- The PSTTs could get proper guidance at any time regarding the activities and exercises, during the experimentation.
- The PSTTs were motivated and provided with the supporting environment accordingly.

Pillay (1978), Nair (1978), Shah (1981), Vora (1984), Talegaonkar (1984), Gupta (1985), Singh (1985), Nandanpawar (1986), Patel (1987), Amin (1988), Bhaskara (1981), Tripathi and Shukla (1990), Srivastava and Srilatha (1992), Patel (1993), Shetty (1993), Sharma (1994) and Thakar (1996) tried to study the effectiveness of creative thinking programmes, creative methods and techniques, divergent thinking programmes, teaching strategies and instructional materials. They found that, their treatment was effective for the development of fluency, flexibility, originality, elaboration, language creativity, mathematical creativity, scientific creativity etc., among the students. The present study has also arrived at the same conclusion. It has supported the major findings of the above mentioned studies.

With this attempt, the present study has also demonstrated the creativity oriented training for PSTTs. Also, it has been proved that, this type of training is possible provided, if one desires to implement it.

During the course of investigations, the investigator feels that one of the ways of making pre-service teacher education programme creative, it would be necessary to introduce the topic of creativity in the curriculum as a part of the theory, and to acquaint the PSTTs with the concept of creativity, educational implications of creativity and the ways and means of developing creativity.

But, this only is not enough. Mere theoretical acquaintance with the concept of creativity is not going to serve the purpose. Creative approach should be mainly assimilated and implemented in the practice teaching programme as a part of instructional setting. Today, our practice teaching is almost, traditional, regimented, and stereotyped. It is essential to set before the student - teachers some specific models or patterns of planning, orient them with some methods of teaching, and want them to follow these patterns and methods, rather rigidly, while

taking their lessons. The criteria of supervision is fixed, established and uniform and the remarks on the lessons also represent this rigidity and conformity of thinking. One hardly allows the student-teacher to deviate from the routine, go off to the beaten track, rather discourage them in doing so. There is little scope for the student- teachers to use their ingenuity, originality and imagination. As a result of which, their teaching becomes artificial, mechanical, dull and lifeless. They develop a traditional, unimaginative approach, in the terminology of creativity, a convergent approach towards teaching, rather than a divergent or creative approach. Not only that, but this authoritative training pattern kills the originality, individuality, initiative, imagination, in short creativity of the student-teachers.

As long as, this state of affair continues in training institutes, one cannot expect to produce creative teachers, who would be inspired and trained to develop creativity among the students. The need today is not merely to prepare and produce good teachers, but creative teachers. If creative teachers are to be produced, the existing training procedure needs drastic changes. Some programmes or strategies to be included in the curricula of different areas of learning viz. Science, Mathematics, Art and Literature etc., where creativity development may be fostered through different newer inputs.

But the question here is, while developing such programmes or strategies or materials, in what ways can the activities under these, be grouped together so as to get the maximum advantage in the real instructional setting ? How can interdisciplinary activities be organised amongst the subjects so that their knowledge of one subject be linked to another subject and vice-versa ? All these questions need to be answered empirically by the investigators, while developing such types of programmes or strategies or materials.

Alongwith this, the obtained finding has wide applicability in the context of not only PSTE programme but also for fostering creativity in the classroom, enrichment of the curriculum, building creativity into text-books, specialised teaching methods, specialised evaluation techniques, organising new systems, inservice training for teachers etc.

As the researcher is involved in teacher education, he feels that the identification of creative ability of student-teachers and to develop it, is of immence value because of the following reasons :

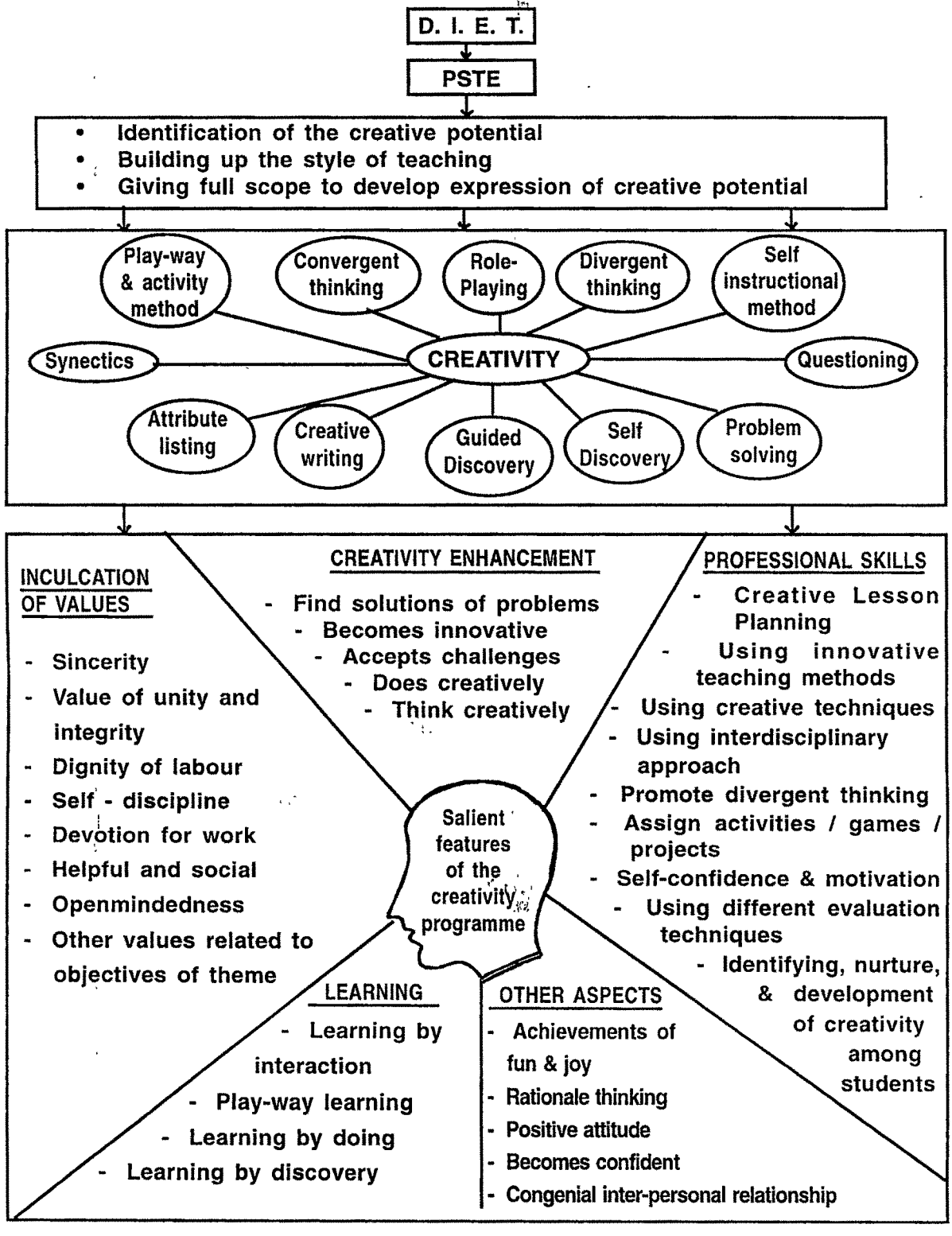
(i) At this adolescent stage the tremendous sexual emotions are in a smouldering stage. At the same time, their latent potentialities are also at the peak point. In such a situation, only a creative spark is enough to stimulate and channelise their potentialities in a productive way.

(ii) A self - actualised teacher is a great asset to the new system of creative education. For, a creative person respects, the creative spark in other individual men and in all men, says Barron (1922). Therefore identifying a creatively dispositioned teacher is of utmost importance in education.

(iii) A creativity oriented professional training is necessary also in view of the new role that the teacher has to play in the modern days. He has to play a role that is of a gardener and an incendiarist (Dobinson, 1964) tending the children and setting their mind on fire. Therefore, mere knowledge and information will not equip the student teacher to the new role of inspiring and cultivating creativity in the students. They should be imparted with the necessary skills of developing creative expression and leisure time hobbies.

With reference to the above discussed facts and after the completion of investigations under this study, the investigator has observed that the wholesome development of personality could possible in terms of various aspects. This can be seen from the diagrammatic format, shown in figure - 5.3.

Figure : 5.3
The ultimate outcome of the creativity programme - the wholesome development of personality



5.8.2 The CP and caste category of the PSTTs

In connection with the second finding, it can be said that an individual cannot be taught to be creative because being creative is an active mental process, a person undergoes. But on the other hand, creativity can be developed with the help of supporting environment and training. In the present study, the equal effect of the treatment was found on the different caste groups of PSTTs.

Now a days, more and more educational awareness is seen in the students of different castes. Parents have also become conscious to motivate and inspire them. So now, it is not the monopoly of only the high caste people to achieve qualitative education in the society, as that was seen in the past. Now the students from all the castes are indulged for their educational progress. In the present study, no significant difference was found in the mean creativity score of the PSTTs of different caste category. This may be because of the educational awareness and progress of different caste groups of PSTTs.

All above, it is the fact that creativity has a direct concern with the free and spontaneous flow of innate abilities. Hence, it does not have any concern with the caste of individuals.

5.8.3 The CP and academic stream of the PSTTs

With regards to the academic stream of the selected groups, it was observed that the average result of the PSTTs in Std. XIIth, of the general stream was 77.59 per cent and 63.09 per cent was that of the PSTTs of science stream. Obviously, it was the high scholastic achievement of the PSTTs of the selected groups.

Alongwith that, the initial creativity level of the PSTTs of both the groups can be valuated by using calculated mean ($\overline{X}$) = 119.35, and standard deviation

(σ) = 29.27 for the total creativity score on pre-test, in terms of high, low and average levels of creativity, as under :

- **High Creativity level :**

The obtained total Creativity score $\geqslant (\overline{X} + \sigma)$ i.e. (119.35 + 29.27)

$\geqslant 148.62 \cong 149$

(i.e. the obtained total creativity score greater than or equal to '149', indicates the high creativity level of the PSTT)

- **Low Creativity level :**

The obtained total creativity score $\leqslant (\overline{X} - \sigma)$ i.e. (119.35 - 29.27)

$\leqslant 90.08 \cong 90$

(i.e. the obtained total creativity score less than or equal to '90', indicates the low creativity level of the PSTT.)

- **Average Creativity level :**

90 < (The obtained total creativity score) < 149

(i.e. the obtained total creativity score between '90' and '149' or above '90' and below '149', indicates the average creativity level of the PSTT)

The valuated creativity levels of the PSTTs of the experimental and control groups are shown in the table no. 5.2.

TABLE No. 5.2

Valuated initial creativity levels of the PSTTs

Group	level of Creativity	No. of PSTTs (N)	Percentage (%)
Experimental (N=46)	High	08	17.39
	Low	12	26.08
	Average	26	56.52
Control (N=43)	High	10	23.25
	Low	06	13.95
	Average	27	62.79

It can be observed from the above table no. 5.2, that the total no. of PSTTs having high and average creativity levels, in both the groups are more with compared to the no. of PSTTs having low creativity level. This shows that all the PSTTs, having initial creativity level to some extent. This may be because of their high previous scholastic achievement. This may need further investigation.

However, many Indian researchers like Lalithamma (1973), Jain (1977), Mehdi (1977), Awasthy (1979), Jarial (1981), Dave (1981), Brar (1986), Desai (1987), Gore (1990), Srivastava and Srilatha (1992) reported a positive and significant relationship between creativity and scholastic achievement. The same supporting view has been found in the present study.

In the present study, the treatment provided was not subject specific. It was mainly based on primary school subjects and the curriculum of PSTE course. Also,

the treatment was given with a view to develop the general creativity with respect to fluency, flexibility, originality and elaboration. So the investigator feels that due to the initial creativity level of PSTTs and provided treatment related to general creativity, no significant difference was found in the mean creativity score of the PSTTs of different academic stream in the experimental group.

Thus, on the basis of the above mentioned major findings of the present study and the investigator's experience as a teacher and teacher educator, he feels that, if the notion of creative education is to succeed, the teacher's role is quite significant. Hence, it would be desirable to provide creativity oriented training to not only PSTTs but also to inservice teachers and the teacher educators.

5.9 SUGGESTIONS FOR FURTHER RESEARCHES

Looking to the results obtained, findings arrived at, and the experience gained in the course of the present investigation, some suggestions regarding further researches on creativity and innovations, in general, are presented below :

1. The study should be replicated by taking another correlates like sex, locality, personality and parental education.
2. The study should also be replicated to develop mathematical or scientific or language creativity.
3. Development of instructional materials for inservice teachers with a view to promote creativity in their students and to study its effectiveness.
4. The study can be replicated on a large sample including PSTTs from 'Adhyapan Mandir' for generalization of the conclusions.
5. To study the effectiveness of Pre-service Creative Teacher Training Programmes

through a naturalistic case study.

6. Preparation and try-out of the aesthetic creativity development programme for PSTTs covering music, painting, dancing, sculpture etc.

7. The very school complex should be studied from the angle of creative atmosphere.

8. The four basic skills of listening and comprehension, speaking, reading and writing could be studied from the dimensions of creativity.

9. Use of multimedia as a specialised teaching technique and to study its effectiveness in developing creativity.

10. An experimental investigation of the effects of selected teaching strategies/ curricular activities/ Teaching Learning Materials on the development of creative thinking.

11. To study the usefulness of stories, fiction, local-specific reading materials, interesting puzzles, divergent practical experiments, interdisciplinary illustrations and graphics, and child-centred activities etc. included in the text-books of primary school subjects, for building creativity.

12. To study the usefulness of identifying the creativity level of Pre-service Teacher Trainees at primary level, as one of the admission criteria.

These and many other areas of creativity could be studied and the country's research has to pass mile stones in order to make education progressive and it's students, excellent, qualitative and productive.