Chapter – V

Conclusions, Suggestions and, Avenues of Research
CHAPTER - V
CONCLUSIONS, SUGGESTIONS &,
AVENUES OF RESEARCH

CONCLUSIONS:

The conclusion is drawn on the basis of the Scientific Creativity test employed in the English, Marathi and, Urdu medium students of standard VIII, learning in the above schools situated in the posh and slum localities of Aurangabad City.

It is interesting to note that the students learning in English medium schools situated in posh localities were found to be more superior in the Scientific Creativity, rather then students learning in Marathi medium and Urdu medium schools situated in posh as well as slum localities.

Similarly the students of Marathi medium schools situated in posh localities were found to be more better in Scientific Creativity, then, the students of Urdu medium schools situated in posh localities. Where as the students of Urdu school situated in posh localities and slum localities are categorically inferior.

There could have been number of reasons responsible for the differences observed.
English medium schools located in posh localities and other medium schools located in posh and slum areas.

The home atmosphere is primarily responsible for low creativity in the students of Marathi and Urdu schools situated in slum localities because the parents are too busy to earn their livelihood. They are also ignorant about the importance of education to their children, therefore it is found that most of the parents never encourage their children to pay attention even towards their regular studies. The children waste their time doing aimless things instead of doing some academic or creative activities. Therefore in the test of Scientific Creativity, they were found to be quite inferior.

On the other hand the parents of students studying in English medium schools situated in posh and even in the slum localities were found to be very conscious about their children’s academic activities, as well as creative activities, they are in full touch with the academic development of their children.

They kept themselves aware of their children’s performance in the school. They were keen in the all round development of their children. They know the importance of education of their children, therefore the parents always try to provide best possible efforts and environment to enhance the academic quality of their children. Therefore,
creativity was found to be more in the students of English medium, no matter where their schools are situated.

The activities provided to the students by the schools, were also responsible for the enhancement of Scientific Creativity among the students. Those schools which emphasised more on the co-curricular or extra co-curricular activities of the students were found that their students had more creativity compared to those schools which do not promote co-curricular or extra co-curricular activities properly. Generally the English medium schools of any locality are found to encourage co-curricular or extra co-curricular activities including the development of creative activities among their students.

The children of English medium schools situated in posh and slum localities as well as Marathi medium schools situated in posh localities were found providing more opportunities to develop creativity as compared to Marathi and Urdu medium schools situated in slum localities.

Lack of knowledge on the part of the teachers, and ignorance about the development of Scientific Creativity among the students, in Marathi and Urdu medium schools situated in slum localities was also a main reason to keep the students inferior.

Not only the teachers lacked knowledge, but also, they were not enthusiastic to promote activities for Scientific
Creativity. They had a pre-conceived notion about their students that they will not do any thing in life. On the other hand the teachers of English medium schools situated in any locality were enthusiastic, kept knowledge and willingness to develop Scientific Creativity.

**SUGGESTIONS**

It is contended that schools are meant for maximising the student’s learning and academic achievements.

Teachers are supposed to polish the pebbles but in order to show a higher pass percentage, they unwittingly dim the diamonds. Too much emphasis is laid on memorization and mere memorization. Is it not tragic that most of our teachers believe that fear of rod or examination results in more learning ?. Thus, they appear to favour authoritative teaching or learning by authority.

Teachers believe that this sort of teaching is most effective and economical. But researchers like Getzels, Jackson and, Torrance have repeatedly found that creative thinking and learning contributes to the acquisition of information and skills in a big way.
ROLE OF SCHOOL AND TEACHER IN DEVELOPING CREATIVITY

LEARNING CREATIVELY

In fact, learning creatively is a natural method of learning. Moor and Ornstein have suggested that it is more economical to learn many things in a creative situation than in an authoritarian one and there are some people who learn little by authority but learn much creatively.

But it is really very sad that creativity of many a child is stifled mercilessly. Consequently, such children are condemned to lead a life of obedience, submissiveness and , conformity.

Thus, they become unable to make their contribution towards the progress of society. Two important factors responsible for the stifling of children's creative potential are 'defective teaching methods' and 'inappropriate educational policies.'

Defective methods of teaching play havoc upon the creativity of children. Besides protecting the creativity of children, creative teaching helps further development even of their Scientific Creative potential.
CREATIVE TEACHING & CREATIVE TEACHER:

To create Scientific Creativity in the school children, is not an easy task, but even then the teachers are the proper instrument in developing Scientific Creativity in their students. Here are some useful suggestions for teachers and learners -

1. Here the question arises, whose teaching can be termed as 'Creative Teaching'. The most simple and natural answer to this question is that the teaching of a 'Creative teacher' can be labeled as 'Creative teaching.' A creative teacher should possess abilities included in creativity syndrome in abundance and makes use of them in various teaching-learning situations.

2. A creative teacher should possess qualities like originality, sensitivity to problems, curiosity, ideational fluency and, power of imagination in abundance, he should be pleased to find these qualities in other individuals too and should try his best to nourish these qualities.

3. A creative teacher should be sensitive to the problems arising either in the classrooms or in the school and should have got the capacity to suggest more than one solution to solve these problems. He should have a strong desire to go deep into the sea of unknown and
should illumine himself by the golden rays of the Sun of knowledge. He should be accustomed to independent thinking and his rich imagination should constantly overflow the banks of his mind. Moreover, he should always yearn to nourish the creativity of children so that it may blossom forth and spread its fragrance.

4. A creative teacher must have adequate mastery over his subject and a strong desire to acquire more and more of it. In fact, he should be an explorer of 'truth'. He should strive continuously to grow professionally. Occasionally, he should also do self-evaluation, analyse his shortcomings and try to get rid of them. He should always keep the doors of his mind and heart open, that is, he must always be prepared to welcome the knowledge acquired as a consequence of new experiences and is always very cautious not to develop any sort of prejudice. He should make sincere efforts to learn something from all types of experiences.

5. A creative teacher should very well understand the laws of learning and keeping in view these laws, he should make appropriate and desirable changes in his methods of teaching. He must also try to understand each and every student and plan his teaching in accordance with the interests and abilities of the students to whom he has to teach.
6. He should study the maladjustments present in the children's personalities and should strive hard to release their creative potential by making a multi-pronged attack on the problem. Thus, he should try to enable them to lead life with sound mental and physical health.

7. In creative teaching, efforts should be made to help the students to form good habits. Habits play an important role in their life. Physical and mental habits either help them or prove a source of hindrance in their day to day duties. Therefore, a creative teacher should always yearn that his students should become broad-minded instead of becoming rigid and obstinate, that is, they should always be receptive to the ideas and opinions of other.

8. A creative teachers should try to develop among his students, the habits like keeping the decisions suspended until full information is assembled, analyzing the causes of a problem by plunging deep into it, evaluating an event or behaviour on the basis of available facts and many other such like habits. Besides, efforts should be made to develop the habit of self-study among students because a person with this habit is most likely to think creatively.

9. In creative teaching, rote memory and blind imitation should not be encouraged, whereas special emphasis
should be laid on independent thinking. It is true that by imitation the students learn many things very easily but it is also equally true that imitation is the greatest enemy of Creativity. Because of this tendency, he become slave of traditional techniques and practices. These practices have their own value but they should not replace originality in any case.

10. A teacher should have high ideals and principles and then, he can hope to be called as a creative teacher, and his teaching will be deserved to be labeled as creative teaching. A teacher should have unlimited reverence and unshakeable faith in his profession. He should have a strong desire to perform his duties with zeal and enthusiasm, he should be intrinsically interested in teaching. He should be overjoyed to see his students marching forward on the path of progress. He should be a man with patient dispositions, industrious habits and whole-hearted devotion to his work.

11. The students can make use of their creative potential in learning only when they are provided opportunities to learn in an atmosphere of freedom, that is, they should be free to launch new experiments, and time-worn practices or techniques should not be allowed to come in their way.
12. But, freedom in no case means that the law of jungle should prevail in the classrooms and in the school. Adequate attention should be paid to the maintenance of discipline in the school but this discipline should never be external, it should always be internal and creative. The students should be trained to get inspiration from within to lead a disciplined life like duty-bound workers.

13. A creative teachers must consider teaching as an art and thus, should work like an artist. Like an artist, he should attach too much importance to creative expression and make creative efforts to create a passion for this type of expression in the minds of learners. Although there is no well-accepted technique for achieving this, yet a creative teacher with dauntless courage, enthusiasm and strong will-power, can be able to realize all this.

14. It is not essential that creative work should be altogether new, hitherto unheard or unseen. Very ordinary jobs, activities and assignments can also be performed in a creative spirit. In creative teaching, efforts should be made to enable the students to learn to perform activities of their daily life in creative spirit.

15. Every teacher cannot be expected to invent entirely new teaching methods by over-hauling the current practices. This can be done only by a handful of
great teachers. But other teachers can also entitled to be called creative teachers, if they handle each and every lesson creatively.

16. Teachers can improvise some attractive and useful teaching aids. They can think ways and means to improve the handwriting of the students, to remove their spelling mistakes, to make the correction work simple and easy and to solve many other such like problems. They should leave no stone unturned to implement their plans.

17. Creative teaching should always be constructive. Efforts should be made to ensure that students do not remain passive listeners only. On the other hand, they must be encouraged to acquire knowledge actively.

18. In place of obedience and conformity, qualities like self-confidence and originality should be inculcated in the students.

19. In addition to it, they should be made aware of the current problems and, efforts should be made to develop an experimental attitude in them so as to enable them to find appropriate solutions to these problems.
How Can Teachers Encourage Creativity?

The School teachers can -

a. provide an environment that allows the child to explore and play without undue restraints.

b. adapt the students' ideas rather than trying to structure the child's ideas to fit the teachers'.

c. accept unusual ideas from their students by suspending judgement of students' divergent problem-solving.

d. use creative problem-solving method in all parts of the curriculum.

e. use to solve problems by the students themselves that naturally occur in everyday life.

f. allow time for the children to explore all possibilities, moving from popular to more original ideas.

g. emphasize process rather than product.

COMPUTER IN CREATIVITY:

Ultradern age of Science has full scope to develop Scientific Creativity in the students. The Information Technology has brought the world closer to everyone. Teachers and students now have ample opportunity in the teaching-learning process by making creative use of computer, internet, websites, etc. The programming used to design a software is based on the creativity of an individual.
Therefore the teachers are suggested to use computer in teaching-learning activities, students should be encouraged to get their subject matter through Information Technology, students’ creativity will be developed if they quest the knowledge through internet.

**SUGGESTIONS TO ENCOURAGE CREATIVITY:**

The following points are a summary of the opinions of a group of teachers who held a seminar on the topic, ‘How can the teacher encourage creative responses in the classroom?’. They reflect the thinking of teachers from primary and secondary schools, many of whom held widely differing views on their role and the aims of education. They are included here principally as discussion points and as a basis for individual reflection. They are not in any order of priority.

1. A good pupil/teacher relationship is essential. Views differed on the precise nature of this relationship, but it was agreed that the teacher must be a good listener, receptive to ideas and be able to respond positively to them.

2. Co-operation should characterize group activities, and competition should not be used as the main spur to effort.
3. Time-limits should rarely be used, but teachers should be aware of 'pace' in pupil's learning. Effective use of a knowledge of the pace at which individuals work should promote creative response. It is acknowledged that indiscriminate use of pace as a spur to effort would have the reverse effect.

4. It is essential that the teacher arranges for pupils to be successful. The implications of this for the building up of positive self-concepts were considered important.

5. There should be a significant emphasis on participation by the pupils in planning their own work.

6. The rewards which should be aimed for should be concerned ultimately with the intrinsic satisfaction of having done something really well. If this approach is adopted, external incentives will cease to be necessary.

7. 'Efficient organization' in the classroom will be concerned with basic order and routine. The organization of pupils' learning will be extremely flexible, allowing individual choice, discrimination and judgement.

8. Most learning will be undertaken on an integrated basis, bringing in related disciplines as they arise naturally.

9. There should be little objective testing and direct evaluation involving the pupil. Progress will be assessed by the teacher independently. Where
discussion takes place with a pupil about his work, the teacher will emphasise positive elements, and 'encouragement' will characterize the teacher's approach.

10. There will be an emphasis on the provision of a wide variety of material in plentiful quantities. This is more important than the sophisticated technical equipments during the middle years of schooling.

11. Pupils' own ideas will form the basis and starting-point of their work. Discussion about these should be encouraged. Brainstorming techniques could be used to produce ideas.

12. Many starting-points for study will be outside school, which should be regarded as a 'base for learning' rather than the 'seat of learning'.

13. There should be time for pupils to browse.

14. The teacher should have in mind the needs of a balanced programme without making this known to the class.

15. Problems should be given which are solved in groups. Collaboration is important and often gives rise to new ideas which can be developed by individuals.

16. A team-teaching approach is likely to be fruitful. The team could profitably include students, aids and auxiliaries.
17. It is important to build up learning resources. Creative work makes great demands on background material.

18. Begin from where the pupils are, not where the teacher thinks they ought to be.

19. Let the pupils go to where they want rather than where the teacher thinks they ought to go.

20. The use of educational games which call for imaginative, individual solutions has great potential for creative development which has not really been used fully yet.

Teachers can also encourage creativity by emphasising the students to generalise and express their ideas in a non-evaluative framework and by concentrating on both divergent and convergent thinking. Teachers can also try to ensure that students have the opportunity and confidence to take risks, challenge assumptions, and see things in a new dimensions.

Scientific Creativity is mainly concerned with the process, some with the products and others with persons who create. The basic concept of Scientific Creativity is that it must be unusual, imaginative, novel, unique, distinctly different. No doubt according to many educationists the creativity in the student is accounted more valuable then intelligence. Taking into consideration
the importance of Scientific Creativity it is necessary for each and every medium schools situated either in posh and slum locality to pay more attention towards the development of Scientific Creativity in the students.

It is necessary to provide more opportunities for the exposure of the students towards creativity. Mainly the teachers of Marathi and Urdu medium are required to study the means and ways for developing creativity in the students. Activity based education play important part in the development of creativity. It is also necessary for the teachers to develop awareness in the parents of the students. Teachers should know that for the development of Scientific Creativity the regular activities like exhibitions, competitions, practical work etc. play important role.

If proper ways are adopted by the teachers and the schools to develop Scientific Creativity, it will be beneficial to the students as well as to the society to progress in future.
AVENUES OF RESEARCH

Researcher has made a comparative study of the students in Scientific Creativity of English, Marathi and, Urdu medium schools situated in posh and slum localities, but there are avenues of researches on the following areas-

1. To study the factors responsible to have high Scientific Creativity in the students of English medium schools and low Scientific Creativity in Marathi medium and Urdu medium schools situated in posh and slum localities of Aurangabad.

2. To study the above differences in boys and girls.

3. To compare the difference in the Scientific Creativity in the students of rural and urban area.

4. To develop the methods, means and, ways to create Scientific Creativity in the students of underdeveloped Marathwada region.

5. To develop standardized website, to create more Scientific Creativity in the students of backward region.