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CREATIVE IMAGINATION AND NOVEL IDEAS

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ABSTRACT

Creativity is the human ability by which he presents any novel work and ideas. It is the quality of person which leads to the production of something new and desirable. The new product or idea may be new to society or new to individual who creates it. Here, this paper discusses the social-psychological conditions in which the development of creative thinking and creative imagination and sparking novel ideas are possible, and some teaching techniques and strategies i.e. Brainstorming, Quiz activity etc. In this paper, along with these strategies of teaching, new concept i.e. Hemisphericity has also been discussed. It can be used as a tool in the planning of instructional experiences and teaching effectively. Thus, these innovative teaching techniques help the teacher to nurture student creativity and spark novel ideas. At the end of this paper some suggestions are provided which are most useful in creating good situation for originating creative imagination and novel

ideas.

KEYWORDS - Brainstorming, Creative imagination, Hemisphericity.

INTRODUCTION :

Education is a path that shows to mankind the right direction to surge. The purpose of education is not just making a student literate and to increase the amount of knowledge but to create the possibilities for a child to invent and discover something new and novel. So it is the responsibility of the school system to provide thought provoking education with freedom and opportunities to use technologies and innovations working in different ways where the responsibility of the teacher is creating favorable social-psychological situations in the classrooms.

The teacher becomes more successful who plan effectively to facilitate the positive learning experiences and to motivate the students for creative imagination and frequently using it in different situations giving birth to new innovative ideas. The factors facilitating creativity can be divided into two tiers comprising primary level factors and secondary level factors. Primary level factors (tier-1) include motivation, effort and self-efficacy while secondary level factors (tier-2) include personality, environment and training. Primary level factors are essentially required for creative thinking. In their absence, creativity will not be possible while contribution of secondary level factors is indirect: that is, secondary level factors are necessary conditions for creative thinking, but their presence is insufficient, and ineffective, without primary level factors. Hence, consistency of both factors is pre requisite for creative thinking.

Therefore, the teacher should follow holistic approach to stimulate and facilitate creative thinking and imagination and use some new teaching methods and strategies to foster creativity in the children.



CREATIVE IMAGINATION:

It is just like a primary root having several branches to make the tree strong and erect to produce several fruits, each fruit is original and novel. Similarly in a man, creative imagination also has strong primary idea with several secondary ideas. To make the primary idea strong, active and alive in the mind of person required different opportunities and situations (manure) to give wings to ideas through contemplating, visualizing and always trying to produce something new and original to complete the task fruitfully.

Creative imagination is the base of creative reflection. Einstein has rightly said, 'imagination is more important than knowledge'. Creative contemplation is the process of interaction of creative imagination, previous experiences and observations. Whenever individual is confronted with any situation, new ways of thought and inspiration are sought by oneself. These new ways of thinking to encounter situations make each and every sub ideas active and alive leading towards novel idea and new identity.

Thus, without imagination implementation of facts can not be possible. Therefore the children should be encouraged for dreaming, imagination and fantasy. Through this dreaming, imagination or fantasy the children's creative urge released and expressed. The best age of imagination is early childhood and early adolescence period for nurturing and utilizing their creative imagination to the utmost. It leads to adventurous thinking, doing something differently, and permitting one thing to lead another thing. George and white brothers are its best examples. The dream of running with highest speed finally helped George to invent engine. Likewise the imagination of flying in the sky inspired white brothers inventing aero plane.

Creative thinking is not at a stroke, it follows order from very of the beginning of preparedness where problem is initiated, revived and defined all related concepts, understood with examples, gastically examined and analyzed and plan of action is prepared if required reexamined, re-modified that is incessant and persistent effort is made, but still unable to solve the problem leading towards frustrating experience, consequently set the problem aside.

However, all the related ideas of the problem are at the unconscious level brain waves pricking, storming, providing alternative actions plan. These divergences of thoughts are constantly present in all activities whether relaxing or working. Unconsciously searching solutions in gestation suddenly action of plan is illuminated, rechecked, reexamined, re-verified and accepted solution is found. Therefore, creative imagination is the fundamental element of creative thinking process. It is basic root cause for dreaming, trying, and implementing dreams or fantasy in actual life situation.

FACTORS AFFECTING SPARKING OF NOVEL IDEAS:

Novel ideas cannot be induced at volition, but it may encourage by fostering the conditions which are conducive to creative thinking. Sparking of novel ideas are depend mainly on three factors i.e. (i) Personality, (ii) Home and school environment and (iii) Teaching methods and techniques.

(i) Personality:

Creativity is one aspect of personality that is characterized by novel and relevant ideas. The person who is confident, independent and risk-taking, perceptive, having good intuition, dare to differ, take traditional rules as a challenge; can generate new and productive ideas. Creative thinking ability and potential for exploring novel and productive ideas is depend on the interactions of personality traits of teachers and their students. Therefore, the teachers should provide opportunities and situations for diversity and flexibility in contemplation, perception, reflection and actions leading towards constructive imagination. The teacher must encourage the students' ability to explain and elaborate the things from different angles, to work out the details of an idea or a plan, lastly unresolved ideas or unsuccessful plan make him/her restless, anxiety ridden where he/she may challenge himself/herself to solve unresolved ideas converting it into achieving goals. He should also stimulate and satisfy curiosity and exploration, encourage confidence and a willingness to take risks and accept challenges.

(ii) Home and School Environment:

Creative behaviour can be developed by conducive environmental. School and home environments both have pivotal role in deciding creative behaviour. Novel and original ideas develop when children have full freedom for expressing their ideas, feelings and actions. Play way activity and storytelling are other methods to

express imaginative ideas. These are also helpful in developing vocabulary in the children. Child by nature loves to explore and play. Play develops child's thought process and imagination. Now a days improved play models are available which initiates child's imagination, intelligence and concentration. The parents should provide such opportunity to their aspiring children. The parents should provide favorable conditions only to search out solutions of their problems themselves and motivate children to think creative imagination and generating novel ideas because if a child is perfectly satisfied with his parent activity and ways of thought, he/she will not be motivate to learn anything new or to reason out new inferences or to create new ways of doing or thinking.

Mackinnon (1981) acknowledged that most school environments don't support creative development and many even suppress creative expression. It has been noted that schools emphasize more on knowledge acquisition and little attention has been placed on the development of strategies and techniques that can foster students' creative potential. Therefore, students' involvement in planning strategies to accomplish task may be helpful in fostering their creative characteristics. So it is the responsibility of the school teachers to encourage creative talents even if sometimes they may have to bear difficulties due to divergent behaviour of their students.

(iii) Teaching Methods and Techniques:

There are large numbers of methods for developing creative thinking ability and some of these methods have been tried out by many researchers in the field of education such as; Brainstorming, Brain calming, Synectics, Morphological Analysis, Bionics, meditation, attribute listening and scamper etc. Torrance (1969) reported that creative thinking can be developed by teaching methods at school level. Lin, Hu, Adey and Shen (2003), Laius (2003) and Jackson et al. (2011) used some teaching techniques and strategies for developing scientific creativity of secondary school students and found significant positive results.

Turner and Rains (1965) reported significant positive effect of brainstorming instructions upon high and low creative subjects. Nirpharake (1978) has developed programme of training based on observation, inquiry, divergent production and appreciation. Jarial (1984) has developed verbal and nonverbal material for promoting creativity. Srivastava and Srilatha (1992) introduced an enrichment programme for 70 gifted elementary school children. This programme comprised discussion, creative writing, problem solving and creative art. Gulati (1999) has developed 60 activities for enhancing creativity at the primary and upper primary stage.

Thus, on the basis of review of studies in the field of teaching methods and techniques, it can be concluded that creative imagination and thinking can be developed by using innovative teaching methods.

How to Promote Creative Imagination and Spark Novel Ideas:

There are many innovative teaching methods and strategies which promote creative imagination and sparking novel ideas in the students. Some of those are described as follows:

Brainstorming:

Brainstorming is not only a method of teaching but also beneficial tool to develop creative attributes in children. It is a lateral thinking process by which students are asked to develop ideas or thoughts that may seem crazy or shocking at first. Then, participants can modify and improve them into novel and useful ideas. Brainstorming is beneficial to introduce the problem and further define issue, diagnose a problem irrespective of resistance to proposed solutions.

The purpose of a brainstorming session is to discover novel ideas and responses very quickly. After a brainstorming session, the ideas can be discussed further for best options systematically listed and evaluated. Ideas can be grouped and analyzed so that they belong to the group rather than individuals. Unlike a buzz session, a brainstorm session can work well with a large group and usually takes less time. It is the best method to limit the time for plenary brainstorms and capture the attention and preparedness of the participants.

Osborn believes that everyone in this universe has two types of mind; a creative mind and a judicial mind. The function of judicial mind is to criticize the ideas that emerge from the creative mind. As soon as a new idea arises, contradictory ideas begin to arise, e.g. "this is impractical" "How can this be possible?" and so on. This leads to inhibition of new ideas. Therefore, Brainstorming is the best method to promote creative thinking and imagination through balancing creative mind and judicial mind.

Brainstorming session starts with a particular and simple problem. In a Brainstorming session, a proper panels of students is formed which consisted a chairman, recorder and process observer. Number of students in each panel should be approx. seven. In each group/panel must know exactly what they are to do or what problem to solve. The members of the group are informed about their responsibilities.

After introducing the problem, information about it is searched out from all the possible sources. After defining the problem to its most specific nature, it is attacked by the group. This is actual stage where ideas are produced. A large number of alternative solutions are produced at this stage.

In this step, some basic rules are required as follows:

1. Criticism is rules out,
2. Freewheeling is welcomed,
3. Quantity is wanted and
4. Combination and improvement of ideas is sought.

The evaluation of ideas is never done on the same day. It is always after a day or two and doesn't require for classroom situation. Such causal atmosphere provides freedom to students to express their ideas freely. Thus, brainstorming dramatizes new ideas, makes people focus their attention on emerging ideas and realize the importance of ideas. Participation of students in a group and expressing their views freely is an experience in itself. It makes realize to the participants that they have the ability to think new ideas. This is also beneficial in the development of ego and self-confidence in the students.

Quiz activity:

'Quiz' means a test, a series of questions on a special subject designed for entertainment or amusement purpose. Generally, quiz term is used for a short test given periodically for the purpose of measuring achievement of new concepts or content recently taught.

Osborn (1953) proposed that the question technique has been recognized as a way to induce imagination. The teachers who have sought to make their teaching more creative have often employed this method. Quiz activity is very beneficial for reproducing imaginatively, elaborating and also going beyond what is read? So, it is a handy tool with the teacher to prompt, direct, seek attention, develop interest and unify the class.

Provide Freedom and Encourage Active Communication:

'Freedom' is the most commonly mentioned environment stimulant for creativity and sparking novel ideas. Generally, it is free and open atmosphere. However, it did not mean a complete absence of supervision. Usually a teacher and experts played an important role in setting the direction of a problem.

The most commonly obstacle to creative thinking, is constraint. 'It included an absence of freedom in deciding what to do or how to do it, a lack of control over one's own ideas', Says Amabile. Therefore, the teacher should provide freedom and encourage active communication in the classroom situation for developing creative thinking and originating novel ideas.

Make Use of Diversity:

Creativity experts believe that bringing together people with diverse backgrounds enhances the cross fertilization process that is helpful in generating ideas. Whenever people from different fields or subject areas work together then collective diverse wisdom produce some fruitful ideas. The school should provide this type of collective atmosphere to solve the problem with novel idea. This atmosphere is also helpful in the development of accepting challenges, cooperation, self-control and confidence.

Hemisphericity:

Hemisphericity is the study of the brain (the left brain hemisphere and right brain hemisphere) where different types of mental functions occur. It is a tool for teachers in planning instructional experiences. Research has suggested that the right cerebral hemisphere is involved in visual, nonverbal, spatial, divergent and intuitive thinking. The left cerebral hemisphere is involved in verbal, logical, categorical, detailed-oriented, and

convergent thinking. The right brain works more with approximations and creativity, whereas left brain works more specifically and has capacity of analyzing. For example, the right side of the brain processes the visual information concerned with perception that allows you to recognize a face, but the left side provides the recognition i.e. name to go with the face. Therefore, both sides of the cerebral hemisphere work in harmony for the development of creativity. It is essential for teachers to possess knowledge of nervous system so that they can prepare teaching content keeping in mind functions of nervous system.

It helps educators to understand that instruction must be planned to enhance the use of both hemispheres. Research also revealed that; although each side of the brain tends to emphasize a specific kind of function but the most productive intellectual functioning occurs when both sides of the brain cooperate with each other.

Learning exercises that are focused on the left side of the brain (the majority of the learning objectives and instructional experiences planned for students) are enhanced when the right side of the brain is included in the experience. By largely ignoring the right side functions of the brain in devising instructional experiences, also delimited to the effectiveness of left side functions in students learning. Therefore, for teaching effectively, teachers must consider functions of Hemisphericity to balance experiences and learning outcomes by involving both sides of brain whenever possible.

Thus, it can be concluded that most of the innovative teaching techniques would require instructional material to accomplish certain objectives. A successful learning experience not only depends on careful planning, selecting of techniques, strategies and an overall method, but also on selecting appropriate instructional material.

SUGGESTIONS:

Due to globalization of Education, structural as well as functional changes have been affected the Indian education system. Some suggestions for developing creative imagination, sparking new ideas in the students and improving teaching process are as follows:

For Administrators:

1. The administrators should take personal responsibility for the development of school climate for innovations. The school teachers try to maintain conducive environment for innovations if they believe that their administrator and manager firmly support creative behaviour.
2. Create an educational situation in which small groups of teaching staffs explore their problems with free collective discussion and analyzing probable solutions of the problems.
3. School administrators should be conducted periodically meetings and face-to-face discussions with staffs regarding creative opportunities for innovations leading towards development of imagination, sparking novel ideas, creating some new teaching methodology.
4. Research oriented effort is necessary to launch and improve the process of creative teaching and learning. Therefore, the administrators should provide exploratory and experimental projects for teachers.

For Teachers:

1. Teachers should familiar with the student's interests, achievement level, aptitudes, abilities, strengths, weaknesses, learning styles, knowledge base, developmental level, motivational values, cultural and community background before using new innovative teaching techniques and strategies.
2. Teachers should welcome and encourage a diversity of ideas and opinions, no matter from where they come.
3. Teachers should use Computer, satellite communication, internet and various Electronic Medias which are the real new method of learning.
4. Teachers should enhance their teaching style through special workshops, seminars, specialized reading, action research and practice of creative exercises and experiments.
5. Provide informal and free atmosphere and encourage creative imagination in students.
6. Encourage free thinking and flexibility in thinking and avoid criticism and negative remarks.
7. Create an open, interactive climate where the students can stimulate greater awareness; excitement and ideas in each other.

8. Sometimes the teachers should provide challenge by pitching assignments and projects just above individual's known capabilities.
9. Create free flow task environment that encourages getting the project finished in the most creative way.
10. Encourage and motivate students to perceive problem in different angles with trial until creative breakthrough is accomplished.
11. Encourage for open communications and utilization of more participants' ideas as resources for effective interaction.
12. Allow more freedom for individuals to guide their own work.
13. Reduce fear of failure and punishment if innovative ideas and recommendations do not pan out.
14. Consider errors and mistakes as opportunities for learning. Today, teachers place a more emphasis on the avoidance of errors and mistakes. Such attitude of teachers develop in the students to concentrate more on play and action safely to avoid errors and punishments instead of generating new ways or new ideas for solving problems.
15. Teachers' actions and attitudes should be such a way that they are meant as a catalyst for improvement of ideas and welfare of their students.
16. Be a resource person rather than a controller or an instructor and reserve special rooms in the school where students can go free, talk to classmate discuss matter, generate new ideas, imagination, new ways so that the seed of creativity can be sow.

For Teacher Education:

1. Teacher education curriculum should be modernized with practices of communication skills, modern technologies, professional outlook and sense of responsibility.
2. In every five-year, special teacher training, refresher and orientation courses should be organized (especially ICT and Computer training).
3. In the teacher training institutes; there should be well equipped library for teachers and educators with all required library resources such as – reference materials, text books, bulletins, books etc. to encourage free reading of both teachers and students.
 - There should be an instructional center which equipped with necessary apparatus such as – audio-visual materials, constructional materials, references etc.
 - There should be a multipurpose laboratory and professional laboratory. This laboratory should aid the prospective teacher in making the transition from student to teacher.

CONCLUSION:

Although each child cannot be transform into an Einstein or a Shakespeare, but we must accept the fact that creativity does exist in everyone and awaits opportunities and necessary conditions- social, psychological, cultural to make and individual to be creative, to learn creativity and to live creatively. It is clear that barriers to creativity are mainly socio-cultural rather than biological. The creative potential of the individual has to be recognized, identified, and nurtured as early as possible, so that enough time will be at hand to blossom creativity in the children and can save much of wasted efforts and time.

Keeping in the mind the development of creativity and sparking novel ideas, the school administrators should provide an appropriate educational situation where group discussions, periodical meetings and open communications can be conducted. Teachers should also train in scientific and creative activities, co-curricular activities, scientific experiments and use of ICT in the classroom situations.

Teachers should also applied different teaching styles, methods and strategies for enhancing a diversity of ideas and progressive communication to generate new ideas. They should use computer, internet, various electronic Medias, creative activity based models, audio-visual aids for developing free thinking which is primarily need for sparking novel ideas.

The children should be well engaged in the creative activities and creative hobbies in school and home at both places. The quality of learning is based on collaborative process among the parents, the students and the school. The school should be well equipped and provide better opportunities to improve cognitive, creative and

scientific thinking of the students. Scientific instruments with pictorial display, small poems, fictions and imaginative stories will certainly encourage their talent may lead towards to create something new. Audio-visual display of the work of creative persons or biography of eminent scientists, engineers, poets, authors, leaders and social workers may influence child to do something new and innovative. Role of parents in education process is equally important. Parents and other adult member of the family must respect individuality, provide freedom for expression and opportunities to perform ideas into reality whether it are minor or major. They must have patience to listen them and try to understand their hidden potential and whenever required encourage them to realize their dreams, imaginations and thought. Their appreciations and inspirations in childhood are helpful to nurture creativity and spark novel ideas in the children.

Thus, it is important to organize the classroom environment suitable to make it conducive to effective teaching and learning. In order to be effective and creative, a teacher should be the master of several different teaching styles, teaching methods and techniques. A teacher should be a good Innovator or early adopter of educational innovations and ICTs, and then he/she will be fully responsible for his/her teaching activity because it is responsibility of teacher to develop the creativity and curiosity in the students.

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