Synetics Model of Teaching: Developing Creativity Skills of Individuals and Groups of Society

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ABSTRACT *Synectics is a problem-solving technique which seeks to promote creative thinking, typically among small groups of people of diverse expertise. Synectics is a problem solving methodology that stimulates thought processes of which the subject may be unaware. This method was developed by George M. Prince, April 5, 1918 – June 9, 2009 and William J.J. Gordon originating in the Arther D. Little Invention Design Unit in 1950s. Synectics strategies using metaphoric activity are designed to provide a structure through which individuals and a groups can free themselves to develop imagination and insight into everyday activities. Three kinds of analogies are used as the basis of synectics exercises as under:Personal analogy Direct analogy Compressed conflict.The application of this model of teaching are:to enhance the creativity of individuals and groups,to develop a feeling of community among students,to make the students able to learn about their classmates with understanding their ideas and problems,to create a community of equals,to encourage and support weaker students,to develop self confidence of the students,to develop self consciousness o the students,to apply in all areas of curriculum,to encourage for best discussion among the teacher and the students,to remove the fear of the students,to increase creativity,to explore social problems,to develop problem-solving approach in the behaviour of the students,to help the students to create a design or product,to broaden our perspective of a concept.*

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There are four ideas challenging conventional view of about creativity such as:t
1. Importance of creativity is in everyday activities of individuals and the groups of the society in the areas of art or metric, or in new invention and enhancing meaning of ideas.
2. The process of creativity is not at all mysterious creativity could be described. This is possible that we can train individuals directly to advance their creativity. The concept of creativity is understood traditionally as mysterious, innate and personal capacity that can be destroyed if the processes of creativity are probed too deeply. On the other hand Gorder says that if the fundamentally and creativity is viewed well by the individuals and groups of society, in that case, they could be able to learn how to apply that understanding to increase the power creativity in their daily life or activities, independently and as a member of groups. According to Gordon, creativity skill is increased by conscious analysis led him to describe it and create training procedures that can be applied in school and other settings.
3. Creative invention is similar in all fields such as in arts, the sciences engineering and is characterized by the same underlying intellectual processes.
4. Individual and group invention (creative thinking are very similar. Every individual and group develops ideas and product in the same style. Further it is absolutely different from the stance that creativity is an intensely personal experience.

The particular processes in synectics are developed from a set of assumptions about the psychology of creativity. There are as under:
1. By bringing the creative process to consciousness and by developing explicit aids to creativity, we can directly increase the creative capacity of both individuals and groups.
2. Emotional component is more important than the intellectual, the irrational more important than the rational, creativity is the development of new mental patterns.
3. Emotional irrational elements must be understood in order to increase the probability of success in a problem solving situation.

Through the metaphoric activity of the synectis model, creativity becomes a conscious process. Metaphores establish a relationship of likeness, the comparison of one object or idea with another object or idea by using one in place of the other. Through these substitutions the creative process occurs, connecting the familiar with the unfamiliar or creating a new from familiar ideas

Metaphor introduces conceptual distance between the student and the object or subject matter and prompts original thoughts. For instance, by asking students to think of their textbook as an old shoe, or as a river, we provide a structure, a metaphor, with while the students can think about something familiar in a new way. Conversely, we can ask students to think about a new topic, the human body, in an old way by asking them to compare it to the transportation system.

Synectics strategies using metaphoric activity are designed to provide a structure through which individuals and a groups can free themselves to develop imagination and insight into everyday activities.

Three kinds of analogies are used as the basis of synectics exercises as under:
i. Personal analogy
ii. Direct analogy
iii. Compressed conflict.

Personal analogy:
Personal analogy requires students to empathize with the ideas or objects to be compared. The identification may be with a person, plant animal, or with a non-living thing. For instance students may be instructed, "Be an automobile, engine. What do you feel like? The emphasis in personal analogy is on empathetic involvement. The greater the conceptual distance created by loss of self, the more likely it is that

the analogy is new and that the students have created or innovated. Gorodon identifies four levels of involvement in personal analogy as under:

1. First-person description of facts → In terms of car engine → I feel hot.
2. First-person identification with emotion → I feel powerful.
3. Empathetic identification with a living thing.
4. Empathetic identification with a non-living object.

These level of personal analogy help to provide guidelines for how well conceptual distance has been established.

Direct analogy is a simple comparison of two objects or concepts. The comparison does not have to be identical in all respects.

Example: Compressed conflict is a two-word description of an object where the words seem to be opposites or contradict each other. For example, tiredly aggressive and friendly foe; life-saving destroyer and nourishing flame.
How is a computer shy and aggressive?
Hat machine is like a smile and a frown?

Steps of Model of Teaching:
Syntax for creativity something new: Strategy one:
Phase I: Description of present condition
The teacher has students describe situation or topic as they see it now.

Part II: Direct Analogy
Students suggest direct analogies, select one, and explore (describe) it further.

Phase III: Personal Analogy
Students become the analogy they selected in phase two.

Phase IV: Compressed Conflict
Students take their descriptions from phase two and three, suggest several compressed conflicts, and choose one.

Phase V: Direct Analogy
Students generate and select another direct analogy, based on the compressed conflict.

Phase VI: Re-examination of the original task
Teacher has students move back to original task or problem and use the last analogy and or the entire synectics experience.

Syntax for making the strange familiar: Strategy two
Phase I: Substantive input
Teacher provides information on new topic.

Phase II: Direct Analogy
Teacher suggests direct analogy and asks students to describe the analogy

Phase III: Personal Analogy
The teacher has students become the direct analogy

Phase IV: Comparing Analogies
Students identify and explain the points of similarity between the new material and the direct analogy.

Phase V: Explaining Differences
Students explain where the analogy does not fit.

Phase VI: Exploration
Students re-explore the original topic on its own terms.

Phase VII: Generating Analogy
Students provide their own direct analogy and explore the similarities and differences.

Social System:
In social system of model of teaching the teacher initiates the sequence and provide guidance for the use of the operational mechanisms. The teacher guides the students to intellectualize their mental process. The students are free to make open-ended discussion. For creative problem solving, norms of cooperation, play of fancy, and intellectual and emotional equality are essentially required. The rewards are internal, coming from the satisfaction of students and pleasure with the learning activity.

Principles of Reaction:
The teacher considers the regular patterns of thinking. The teacher encourages the students to generate a creative response. The teacher must display a use of the non-rational to encourage the reluctant student to indulge in irrelevance, fantasy, symbolism, and other devices necessary to break art of set channels of thinking. The teacher must consider all responses of the student for their good creative expression.

Support System:
No special support system is required. However, individual or group must be provided sufficient facilities in synectics procedures. The class requires a good work place. The conducive environment should be maintained for good creative activities of the students are large in number, in th9e classroom then in this case, smaller groups should be made for enhancing creative activities of the students.

Application:
The application of this model of teaching are:
1. To enhance the creativity of individuals and groups.
2. To develop a feeling of community among students.
3. To make the students able to learn about their classmates with understanding their ideas and problems.
4. To create a community of equals.
5. To encourage and support weaker students.
6. To develop self confidence of the students
7. To develop self consciousness o the students.
8. To apply in all areas of curriculum
9. To encourage for best discussion among the teacher and the students.
10. To remove the fear of the students
11. To increase creativity
12. To explore social problems
13. To develop problem-solving approach in the behaviour of the students.
14. To help the students to create a design or product.
15. To broaden our perspective

The instructional and nurturant effects are shown in the following figure.
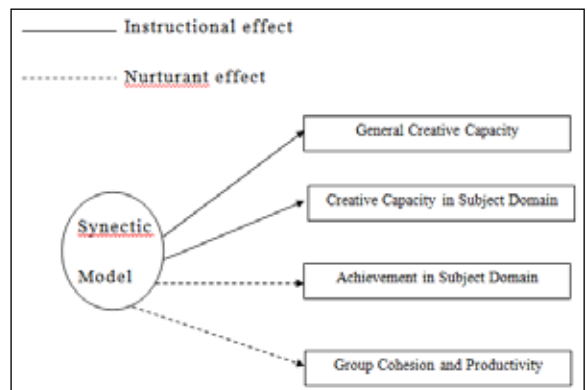
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