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 of 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.

Through the metaphorical activity of the synectics 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 which 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.

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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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