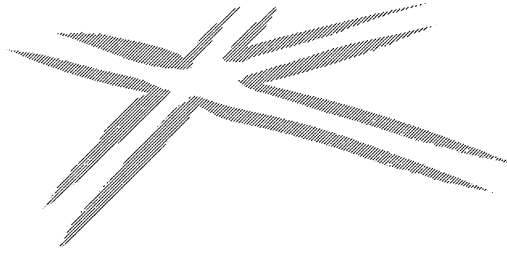




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# CHAPTER 1

## LEARNING-FOCUSED CLASSROOMS: Patterns of Practice

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**Y**OUR new word processing software has arrived. You have loaded it onto your computer and are about to use it for the first time. A disconcerting new format and an array of unfamiliar icons are displayed before you. As you struggle to make sense of this new program, you draw on your experiences with technology, as well as your strategies for learning. As you experiment with the program, refer to the manual and experiment some more, you become increasingly comfortable with the program basics.

Each learner and each learning experience is unique; yet we can identify patterns and make generalizations about the learning process. Designing effective learning environments requires a clear understanding of and attention to both commonalities and differences in the learners and the learning.

### **Learning About Learning**

Since ancient times, how humans learn has been a subject for philosophers, poets and scientists. This curiosity continues to drive much exploration by current researchers and thoughtful classroom teachers. The picture that is emerging from studies in cognitive psychology, strategic instruction and teaching for transfer offers a redefinition of learning that has clear implications for today's classroom practice. The most significant change is the shift in the orientation of instruction from teaching-centered to learning-focused. This shift centers instruction on the learner and learning processes and away from the teacher and teaching processes. This is not an easy shift. Like the learning process itself, this shift can be uncomfortable and fraught with uncertainty. The comfort of presenting the content and covering the material must be released to embrace the learners' interactions with concepts, skills and ideas. With this orientation, we come to realize that there is and probably never was one lesson being taught or one lesson being learned. There are as many lessons as learners and as many useful new questions as answers.

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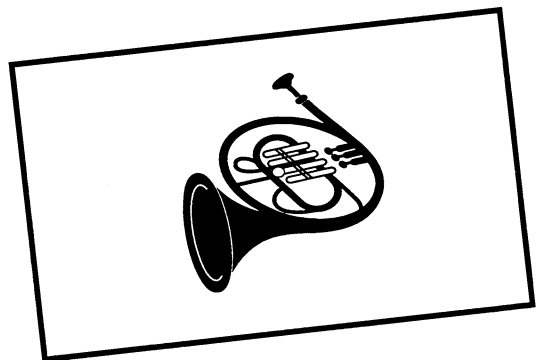
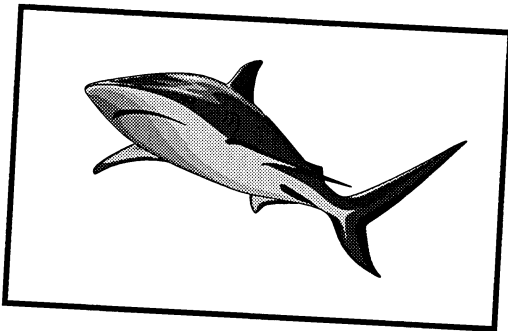
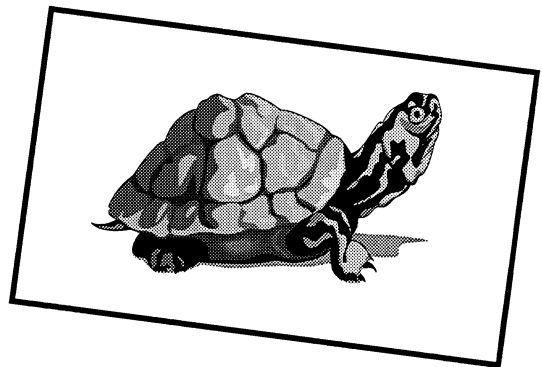
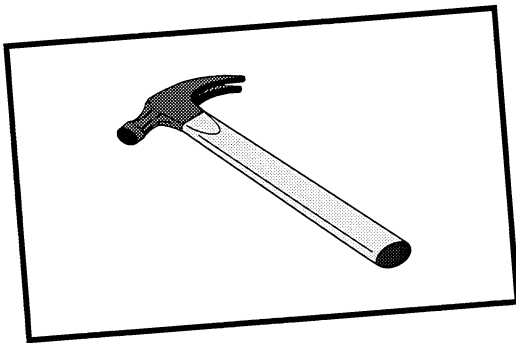
# Visual Synectics

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**Visual Synectics** is similar to Synectics but offers a visual prompt for students' brainstorming. The concrete image is a good scaffold for younger students, or newly formed groups.

1. Prepare a set of picture cards --photographs of everyday objects cut from magazines and catalogs glued to 4x6 index cards. A mix of organic and humanmade objects seems to work best. Laminating the cards makes them more durable and longer lasting.
2. Structure student groups of 3 - 4. Randomly distribute cards to each group or let them pick one from a pile placed face down.
3. Have small groups generate responses to the following:
  - List parts - materials - functions - properties and processes associated with the objects pictured on your card
4. Small groups then compare their lists to the topic or concept selected by you for comparison.

How is \_\_\_\_\_ like your picture card ?



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# Modality Brainstorming

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**Modality Brainstorming** taps learning style differences that appear to be hardwired into the brain. The brain stores and processes information in four primary modalities: visual, kinesthetic, auditory and olfactory/gustatory.

To test this theory have students brainstorm for several minutes on a selected topic.

**Example:** How do you know it is September in (your part of the country) ?

Give students 3-4 minutes to generate a respectable list, then stop them and have the recorder apply the following procedure.

## Directions to Students:

1. Examine your list and draw a line after the 10th item.
2. Read each item and ask the person in your group who generated the idea how that idea occurred in his or her brain. Was it a picture, a feeling, a sound, or a taste or smell?
3. Label each of the ten ideas using the following code.

**V- Visual - pictures and images**

**K - Kinesthetic -feelings both physical and emotional**

**A- Auditory - sounds**

**O/G - Olfactory/Gustatory - smells and tastes**

It is important that the person who generated the idea be the one who labels the modality. All people do not process information the same way.

Note: Some ideas may require double coding because the idea is stored in two modalities.

For example an image of a fire may be a picture (V) and a feeling (K). This would be coded VK.

4. Count up the number of each modality used to generate the list. By using just ten items it is possible to establish percentages of modality dominance for the class. (The population as a whole is divided roughly 40% visual, 40% kinesthetic and 20% auditory.)
5. You can now stretch the brainstorming by having students use their nondominant modalities to generate new ideas. Novel ideas are more likely to occur when we stretch beyond our normal ways of processing.

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# Concept Maps

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**Concept maps** are useful tools for helping students organize information about important topics. They go beyond semantic maps and webs by showing the relationship between linked items. They display hierarchies of information as they move from big ideas to supporting details.

To create a concept map, students place major concept words in ovals. These words are usually nouns. The ovals are connected by stems and linking words that describe the connection between the ovals.

The most general concept or biggest idea is placed in an oval at the top of the page. The words become more specific as students move down the page. Model the process before directing students to do their own.

Concept maps can be created before, during, and after a reading assignment or an entire unit of study. They can also be used as an alternative form of assessment.

## Directions:

1. List all the concepts to be mapped.
2. Pick out the main concept. Rank order the remaining concepts, listing them from most general to most specific. Cluster related ideas.
3. Arrange the concepts in a downward-flowing, branching structure. In the early stages of teaching concept mapping this can be done on file cards or post-it notes. The cards or notes can then be rearranged as needed.
4. Connect related concepts with stems and appropriate linking words.
5. Develop cross-linkages at important connecting points.

