Showcasing Popular Issues Series **Volume XXXI, Number 19**

NISOD INNOVATION ABSTRACTS

Published by the National Institute for Staff and Organizational Development (NISOD) • College of Education • The University of Texas at Austin

LEARNING STRATEGIES: THE FLIP SIDE OF TEACHING STRATEGIES

I am happy to report that educational psychologists, demonstrating their infinite wisdom, have once again found students. This may appear to be a curious statement to those of you who never knew we lost them. However, for many years, the focus of research and theorizing about teaching focused almost exclusively on the *teacher*, teaching processes, teaching materials, and teaching outcomes. Student variables were merely the dependent measures in these studies. We examined the effects of all sorts of teaching variables, both individually and in combination, on student achievement. However, along with the cognitive revolution in psychology came a change in our view of human learning. More recent theories and conceptual frameworks in educational psychology tend to focus on understanding how incoming information is selected, processed, structured in memory, and recalled for later use. This focus on thought, or cognition, has changed our general conception of the teaching/learning process in several ways. Instead of viewing learners as passively recording the stimuli that the teacher presents, learning is viewed as an active process that occurs *within* the learner and which can be influenced *by* the learner. Instead of viewing the outcome of learning as depending mainly on what the teacher presents, the outcome of learning is supposed to depend jointly on information presented and how the learner processes that information.

Learning Strategies

One outcome of this change in focus is that a number of learner variables have been receiving increasing attention by researchers and practitioners because of their importance to current conceptions of the learner's active role in the teaching/learning act. In particular, these conceptual frameworks suggest that the effects of instruction depend partly on what a learner knows, such as the learner's prior knowledge about a topic or related information; what a learner thinks about before, during, and after a learning activity, such as the cognitive processes and strategic planning operations used; and what type of personal context the learner generates for a learning activity, such as the learner's motivational level or affective state.

Many of these variables are investigated under the label *learning strategies*. Learning strategies can be defined as behaviors and thoughts that a learner engages in during learning and that are intended to influence the learner's knowledge-acquisition processes. Thus, the goal of any particular learning strategy may be to affect the learner's motivational or affective state, or the way in which the learner selects, acquires, organizes, or integrates new knowledge. For example, in preparing for a test a student may use positive self-talk to reduce feelings of anxiety; in learning from a text, a learner may generate summaries for each section; in learning about a scientific concept, a learner may take notes about the material. Each of these activities—coaching, summarizing and note-taking—are examples of learning strategies.

There are eight major categories of learning strategies a learner can use to improve efficiency:

- *rehearsal strategies for basic learning tasks*, such as repeating names of items in an ordered list. An example of an academic task that could be facilitated by this strategy would be remembering the order in which Shakespeare introduces the characters in *Hamlet*.
- *rehearsal strategies for complex learning tasks*, such as copying, underlining, or shadowing the material presented in class. An example of an academic task using this strategy would be underlining the main ideas in a text or recopying portions of a set of lecture notes.
- *elaboration strategies for basic learning tasks*, such as forming a mental image or sentence relating the items in each pair for a paired-associate list of words. An example of an academic task using this strategy would be forming a mental image of a scene described by a poem in order to remember the sequence of the poem.
- *elaboration strategies for complex tasks*, such as paraphrasing, summarizing, or describing how new information relates to existing knowledge. An example of an academic task using this strategy would be

relating the information presented about the structure of complex molecules to the information presented earlier about the structure of simple molecules.

- *organizational strategies for basic learning tasks*, such as grouping or ordering to-be-learned items from a list or a section of prose. An example of an academic task using this strategy would be putting foreign vocabulary words into the categories for parts of speech, or creating a chronological listing of the events that led up to the Declaration of Independence.
- *organizational strategies for complex tasks*, such as outlining a passage or creating a hierarchy. An example of an academic task using this strategy would be outlining assigned chapters in the textbook or creating a diagram to show the relationship among the stress forces in a structural design.
- *comprehension monitoring strategies*, such as checking for comprehension failures. An example of this strategy would be using self-questioning to check understanding of the material presented in class or using the questions at the beginning of a section to guide one's reading behavior while studying a textbook.
- *affective strategies*, such as being alert and relaxed, to help overcome test anxiety. An example of this strategy would be reducing external distractions by studying in a quiet place, or using thought-stopping activities to prevent thoughts of doing poorly from directing attention away from the test and toward fears of failure.

The Meta-curriculum

Increasing one's use of learning strategies can have a significant impact on learning and performance. (This is particularly true for academically underprepared students.) One way that college instructors can enhance students' ability to be independent, responsible, and effective learners is by teaching these skills along with content-based curriculum. By using instructional methods that demonstrate, cue, and reinforce the use of learning strategies, we all can implement a learning strategies meta-curriculum. It is a meta-curriculum in the sense that it requires an analysis of the regular course curriculum and the learning demands it places on the students.

The classroom provides many opportunities for teaching these strategies. For example, when you pause to review and answer student questions before continuing with a lecture, that is a good time to talk about self-review and the role that self-testing can play in both consolidating new learning and identifying areas of misunderstanding or confusion. Explaining how this teaching strategy can be used as an individual learning strategy by each student and why it is helpful would not take very much time away from regular instructional activities. And another example, the announcement of a class test can be excellent time to present strategies for test preparation as well as for coping with test anxiety. A brief discussion of negative self-talk and how to turn it into positive self-talk can introduce students to this powerful self-management skill. Finally, when you use an analogy to help make a new concept more real, you also create the opportunity to pause and discuss the rationale for using this technique as a teaching strategy and how students can create their own analogies as learning strategies.

The underlying principle in each of these examples involves examining the curriculum for the types of learning that are required and reflecting upon the assumptions concerning learning strategies which form the basis for effective teaching strategies. This process is not very different from what good teachers already do in preparing for their classes. The difference is that instead of focusing only on developing more effective teaching strategies, the teacher is focusing on the learning implicit in these methods. Making these assumptions explicit and teaching students how to incorporate them into their own study activities is the basic building block of the meta-curriculum. Teaching strategies are the flipside of effective learning strategies. Clearly, a single exposure would not be sufficient for most students to acquire new learning strategies. However, repeated exposure to a technique in a variety of contexts over a period of time and by a variety of instructors could contribute to students' development and refinement of effective learning strategies repertoire and a new sense of responsibility for their own learning.

Claire E. Weinstein, *Professor*

For further information, contact the author at The University of Texas at Austin, SZB 352, Austin, Texas 78712.

Reprinted with permission of Center for Teaching Effectiveness, Newsletter, Vol. 6, No. 3, March, 1985.

Showcasing Popular Issues Series

On occasion, NISOD will reprint some previously published articles, showcasing some popular contributions to professional development and the improvement of teaching and learning.

This issue was originally published in September 1985, as Volume VII, No. 19.

Suanne D. Roueche, Editor

September 18, 2009, Vol. XXXI, No. 19

Innovation Abstracts (ISSN 0199-106X) is published weekly following the fall and spring terms of the academic calendar, except Thanksgiving week, by the National Institute for Staff and Organizational Development (NISOD), Department of Educational Administration, College of Education, 1 University Station, D5600, Austin, Texas 78712-0378, (512) 471-7545, Email: abstracts@nisod.org