In an age when information multiplies exponentially on an annual basis, people need to enhance their ability to learn and apply the information important to them. They must sharpen this new "basic" skill because there is more learning for each individual to
manage and so much about learning to be managed. In fact, Cheren (1987) terms this new skill group “learning management.”

Unfortunately, some educators view learning how to learn as a mysterious, separate category of practice. They feel it requires special experts and programs and cannot be taught within the regular curriculum or at the workplace (Cheren 1987). This ERIC Digest will highlight various programs that teach learning management as a part of the total learning experience (whether in the classroom or in the workplace). All but one of the programs described in this digest suggest that learning how to learn can and should be an integral part of learning a content area; the exception is Weinstein (1988), who describes an undergraduate course that is part of the Cognitive Learning Strategies Project at the University of Texas at Austin.

THE LEARNING PROCESS

Much of what we experience through our senses goes into short-term memory, which, like a computer buffer, is of limited capacity. Most of that sensory information is rapidly discarded to make room for new information, but some of it is processed into the long-term memory. Cognitive psychologists have theorized that memory consists of systematically arranged networks of connected facts known as schemata. Learning takes place as new information is integrated into existing schemata. Part of learning management is controlling which bits of information are to receive this extra processing into the existing schemata (Carlisle 1985; Ross, Morrison, Anand, and O'Dell 1987). Because adult learning is usually more self-directed and because adults are free to determine their learning objectives (except in certain job-related learning experiences), they must learn to manage their learning even more than young people who are still in school. Luckily, adults have an advantage. Unlike adolescents who may learn only the content that will be “on the final” and promptly forget most of what they learned, adults generally pursue a learning experience because they are interested in the self-selected content or because they wish to apply the knowledge (whether on the job or elsewhere). There is a motive, then, to commit facts to long-term memory, to understand concepts, and to practice skills—something that goes beyond obtaining a “passing” grade. Having a motivation to learn is the first step toward managing one’s learning.

LEARNING-TO-LEARN COURSE

Weinstein (1988) describes an undergraduate course designed to help individuals acquire knowledge and skills necessary to take more responsibility for their own learning. A regular undergraduate course in which the individual must enroll for a grade; it meets for three 1-hour sessions weekly. Specific goals for the course, developed each time it is offered, are based on the following entry measures: the Learning and Study Strategies Inventory (LSSI), a standardized measure of reading comprehension, a measure of self-concept or
self-esteem, and supplementary measures examining various aspects of cognition, anxiety, and motivation. Results of these measures are used to establish both group and individual goals.

The following categories comprise the course content: o Executive control processes (e.g., goal setting and comprehension monitoring) o Knowledge acquisitions processes (e.g., elaboration and organization) o Active study skills (e.g., pre-, during, and post-reading methods) o Support strategies (e.g., methods for reducing anxiety and dealing with procrastination)

Although a variety of instructional methods are used during the class, emphasis is on guided practice and feedback. The strategies and methods under examination are discussed in what Weinstein terms a "cyclic manner," which relates the learning strategy under discussion to student-identified problems and allows for practice and feedback. The cyclic manner helps the students form a systematic approach to studying and learning and assists them to view the two processes as interactive systems.

THE MUD METHOD

Memorizing, understanding, and doing (MUD) are the keys to learning according to Downs (1987). These tasks require learners to play an active role in their learning, as they decide for themselves whether to memorize (facts), to understand (concepts), or to do (physical skills). Teachers encourage the use of these keys by organizing content area learning experiences in a certain way. Downs (1987) advocates the following: o Few formal lectures; group generation of concepts from prepared materials o Planning for group work, especially in pairs to allow for equal participation o The philosophy that views are neither right nor wrong; all are recorded o Use of worksheets that are not assessed o A "pondering" period allowed during each session o Handouts and discussion to end each session

Furthermore, the MUD taxonomy is described and applied from the first day of the learning experience, allowing students to have plenty of practice (and success!) with it.

At least two employers have tried the MUD method and found it successful in meeting their employees' and their own needs. In one case, the company used learning management techniques to retrain the existing work force to operate a new computer-based factory that was entirely unlike the previous work environment.

Downs (1987) found that use of the MUD method is in direct opposition to what teachers have been trained to do. Currently, the main emphasis of teaching is on product (or "outcome") and not on process. Teachers are trained to do the active learning steps such as breaking the tasks down, marking them, planning the material, and solving pupils' problems. Having the teacher do all the work, however, promotes "passive, dependent learners."
GROUP PROBLEM-BASED LEARNING

Barrows (1987) describes a problem-based learning method that enhances learning management skills needed by most professionals who engage in self-directed learning. This method calls for small groups of students working at a simulated problem in the area of study. (The model was developed for use with medical students.) The model starts with the group setting of learning objectives and expectations. This process facilitates student awareness of their own learning needs and makes them more attuned to the kinds of information they will gather. As the groups think about the problem and discover gaps in their knowledge, they may alter their information search plan to include new information needs. This collection of information needs is then categorized and formalized.

Each group member is then asked to identify which resources he or she will use to fill information needs and to justify the selections. A schedule is established. As students undertake their research, they are asked to critique the resources used and to advise group members on resource selection and use.

When they reassemble, group members are asked once again to tackle the original, simulated problem from the beginning, applying their newly gained knowledge. Finally, students are asked to integrate and summarize what they have learned and to discuss how this learning has extended their knowledge and how it will help them with future related problems (Barrows 1987).

LEARNING MANAGEMENT AT THE WORK SITE

Cheren (1987) describes several training and development activities that take place at the work site and discusses how trainers can integrate the teaching of learning skills into these activities. For example, he suggests that the orientation program for new staff should also orient staff in methods of learning by having students use diverse methods; such information learning methods as interviews, journal keeping, and mentor/new staff relationships are mentioned.

In courses and workshops, Cheren suggests that trainers should always begin the course by reminding students that they are responsible for their own learning outcomes. He suggests that trainers ask several questions that help students focus on the information that is important to them, such as the following: o (At the beginning of the class) Have you talked about this development effort with your supervisor/co-workers? Did you agree on learning priorities and applications? o (During the course) Have you been reminding yourself about your priorities and emphasizing them in your questions and notes?

Cheren (1987) also gives advice on developing a learning resource center at the worksite. Materials within the center should include competency assessment activities.
so that staff members can assess their learning needs and self-instructional materials, as well as the usual books and audiovisual materials. Personnel at the learning resource center should have the primary role of helping staff members plan their development projects.

LEARNING TO LEARN TAKES TIME

Effective learners learn in very different ways, and each individual may use different learning methods depending upon the situation and the information to be learned. Gibbs (1983) says that learning to learn is a developmental process in which a person's conception of learning "evolves." Thus, it is not likely that a one-time "dose" of study skills will serve the learner for life. Rather, adult learners need to be made aware over time of different learning methods and to be allowed to practice and to try them out; some will work for the individual and some will not. In the long run, this growing awareness of learning management will help learners develop "greater self-direction in life" which is a part of the process of maturation (Cheren 1983).

REFERENCES

This ERIC Digest is based on the following papers found in LEARNING MANAGEMENT:

EMERGING DIRECTIONS FOR LEARNING TO LEARN IN THE WORKPLACE.

Downs, Sylvia. "Developing Learning Skills."

Barrows, Howard S. "Learning Management in the Context of Small Group Problem-based Learning."

Cheren, Mark E. "Learning Management Skills Development as an Integral Part of Training and Development."

Smith, Robert M. "Learning to Learn in the Workplace."

ADDITIONAL REFERENCES


Cheren, Mark E. "Helping Learners Achieve Greater Self-Direction." In NEW


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