Intentional Learning:
A Process for Learning to Learn in the Accounting Curriculum

2.2 The Intentional Learning Process

Seen in its broadest sense, learning begins with the physical experience of the infant, the incessant questions of the toddler, the reading, writing, arithmetic of elementary education. These early experiences provide the base for the learning process of the college student. The learner new to a field or subject studies facts and acquires knowledge. As his learning progresses, it becomes more complex and involves developing intellectual skills and understanding learning strategies. Eventually, the most successful learner applies learning to the issues and problems of personal and professional life. This individual practices intentional learning and becomes an independent learner.

Learning can be described as surface or deep, short-term or long-term. These descriptions are closely related and present a basic dichotomy. Surface/short-term learning focuses on information that is easily learned and easily forgotten. Deep/long-term learning focuses on the same kind of information but organizes it into meaningful knowledge that can be remembered and used when needed. Learning in many fields, including accounting, can also be described as development of skills used in practice or application of knowledge. The challenge for accounting educators is to help students move from surface learning of accounting rules to deep understanding of accounting principles and to skill in using knowledge in practice.

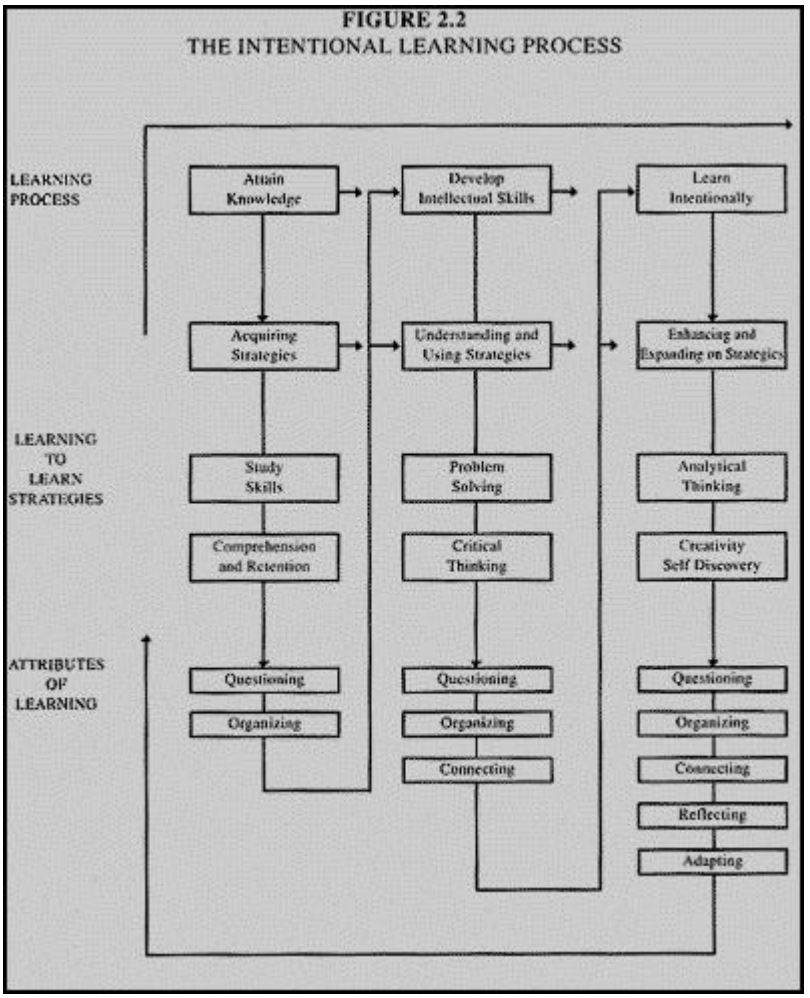
A given individual may be at different stages in developing as a learner, depending on the subject or task involved. For example, a college athlete could be intentional about studying baseball: reading and using baseball theory, reviewing the strengths and weaknesses of his opponents, practicing signals and inventing strategies. That same student could be a beginning learner in chemistry where he studies facts, memorizes formulae, and reproduces this information on objective tests. And he could be a more sophisticated learner thinking critically in accounting classes, where he applies principles of accounting to problems at his workplace.

Our concept of intentional learning has been informed by psychologists who see the learning process as a continuum. McKeachie summarized this notion in a review of teaching/learning research:

> ...there is a continuum running from what is usually termed 'learning' to 'problem solving' and 'creativity.' We usually say that someone has learned when they display the effects of training or experience in a context similar to that in which the learning occurred. We talk about 'transfer of learning' when the learning is displayed in a situation somewhat different from that in which the original learning occurred. If the transfer situation is so different that the use of learning encounters some barrier of difficulty, we speak of 'problem solving.' When the situation is greatly different and the distance of transfer needed is greater still, we speak of 'creativity'' (McKeachie, et al., 1986, p. 33).

Although we began our work by thinking about learning to learn as a continuum, we developed the concept of intentional learning as both cumulative and cyclical. We see the process as moving from acquiring knowledge to developing intellectual skills to intentional learning. The learner who is intentional in one field may return to acquiring knowledge when he undertakes study of a different subject. The key to intentional learning is understanding the process and making conscious choices among a variety of strategies.

To envision the intentional learning process, we have developed the diagram presented as Figure 2.2 The diagram is intended only as a visual representation, not as a definitive explanation of key elements in the process. It is a device to help us and our readers see the steps students take as they learn and learn to learn.



The learning process is depicted here in three columns of increasing sophistication and intentionality. The process starts in the first column with information or knowledge. To attain knowledge, the learner acquires and practices a number of relatively unsophisticated learning strategies. The learner begins by memorizing facts, learning rules, organizing these into knowledge. For the accounting student, this could mean learning the definitions of key accounting terms so that he has the vocabulary to understand the field. For any student, acquiring information may go along with courses in study skills such as how to manage time, how to improve reading comprehension or remember facts and principles. This beginning stage in the learning process is where we find the passive student. It may be where most college students start.

Even at this early stage, a student can begin to develop attributes of intentional learning. The learner starts with surface learning, but needs to organize information to remember and use it. Attributes of questioning and organizing begin this process. For accounting educators, this suggests that these learning attributes should be introduced early in the first course as conscious activities to help student make sense of their learning.

The middle column of the diagram in Figure 2.2 shows the learner progressing to development of intellectual skills. He employs such sophisticated learning strategies as summarizing and elaborating on what he has read, or applying general principles to specific situations or problems. He moves from learning facts to applying them, first in problem solving (dealing with clearly defined problems and solutions), then in critical thinking (dealing with unstructured problems with multiple—or no—solutions). For the accounting student, this might mean preparing and discussing in class a case study of a troubled company that needs to improve the quality and use of its financial information. The student developing intellectual skills asks probing questions, organizes information into complex patterns, and begins to make connections between what he is learning and what he already knows.

The learner at this stage is thinking critically about what he is learning. Thinking and learning are closely related activities and psychologists are not agreed on their relationship or distinctions between them. Thinking requires knowledge (something to think about), but knowledge is not enough. Students need also practice, opportunity, and encouragement to think on their own. Using attributes of questioning, organizing, and connecting can help students think about and use the knowledge they are learning.

The sophisticated learner depicted in the third column of Figure 2.2 will not only acquire knowledge, solve problems, and think critically, he will also reflect on what and how he is learning. This reflection will include three kinds of knowledge about learning, described by psychologists as declarative (what to do), procedural (how to do it), and conditional (when and why to do it) (Paris et al., 1983). This learner enhances his learning strategies by practicing analytical thinking and by developing creative solutions to learning problems. At this stage an accounting student will be motivated to research a problem, explore a number of solutions, and propose a direction to follow. He will be prepared to reflect on how he is finding solutions and to adapt what he is learning to other new situations.

As the learner moves through the intentional learning process, his learning skills become more sophisticated and more self conscious. That is, questions probe more deeply, organization becomes more complex, connections become more clear and logical. Evaluation of progress is crucial to this development. Accounting faculty should include evaluation of the quality and use of the attributes of learning when they introduce questioning, organizing, etc., into their courses. They will find Gainen and Locatelli's AECC assessment guide (1995) a helpful resource. The guide offers many suggestions, including a chart on assessing the five attributes which we have reproduced as Appendix C. Ultimately, an experienced, independent learner will include self-evaluation in his reflections on learning. Faculty can help learners develop self-evaluation skills by emphasizing improvement of the attributes of learning.

Although the intentional learning process is depicted in Figure 2.2 in three columns of increasing sophistication, the process is cyclical as well as cumulative. Learners build on previous skills as they more through the process. Thus the process echoes Bloom's hierarchical taxonomy of cognitive objectives and McKeachie's image of a learning continuum. But we also see the process as continuing and cyclical, the learner returning to the first stages to attain more knowledge and develop more intellectual skills in connection with a new topic. For example, an accounting student could practice all the attributes of intentional learning by the end of intermediate accounting courses, and then be expected to use with conscious attention the activities of attaining knowledge in a graduate international tax course. Because he understands the process, this learner will be able to move quickly to problem solving and analytical thinking, that is, to adapting and using previous experience of intentional learning.