

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

3.2 Intellectual Development

In almost every introductory accounting class, there is at least one student who insists on being told the right answer and who resists any suggestion that there might be more than one answer to a question or problem. In the same class, almost inevitably, will be another student who denies that any answer can be superior to any other answer; to this student, any opinion is good if you can support it. These two students represent two different stages or levels of intellectual development commonly found in college classes. They may be equally bright and competent, but their intellectual development will significantly influence these students' ability to become mature, independent learners.

An abundant amount of research over the past twenty-five years has explored the question of intellectual development in college. This research has led to general agreement about the direction of development and the elements of thought and behavior involved. Essentially these are: the nature of knowledge as perceived by the knower, the means of evaluating knowledge, the role of the learner, her peers, and the teacher. A student's perception of these elements affects how and what she learns. Research shows that in college most students move through several stages of intellectual development. Their coursework and other college experiences can help them move through these stages. We will review briefly several studies of intellectual development and will suggest how a consideration of student intellectual development may help faculty shape accounting classes that help students learn effectively and mature intellectually.

William G. Perry Jr. interviewed students at Harvard and Radcliffe Colleges in the 1950's and 1960's to learn how they perceived the nature of knowledge, values, and responsibility. He found a clear pattern of development that included nine positions, from basic duality which sees the word as right versus wrong, true or false (the first student in our example above), to multiplicity and relativism which sees a variety of possible answers but still expects some absolutes to exist (our second student), and finally to commitment within a relativistic world in which one's affirmations are open to review and change. Perry saw the shift from relativism toward commitment as the most difficult for students and for their teachers. He suggested that students at this point need support from faculty who can share their searches for meaning and make the students feel part of a community of searchers. Most of Perry's students were in the middle positions of his scheme, struggling with questions about the nature of truth, the role of authority (books or teachers), and the evaluation and use of knowledge (Perry, 1970.)

Most of Perry's subjects were young men. In several studies of women, Belenky and associates found both similarities and differences with Perry's scheme. The basic pattern of intellectual development was similar, from received knowledge which is concrete, dualistic, and focused on the one, right answer, through subjective knowledge which uses formal methods to examine a complex world. The final perspective in Belenky's study is constructed knowledge which sees truth in the context of a complex, ambiguous world.

A particularly useful gender-related difference found in the Belenky study is the distinction between separate and connected knowing. Separate knowing (more characteristic of males) focuses on formal analysis of the object, person, topic under study; connected knowing (more characteristic of females) focuses on personal understanding of the topic or person to be know. Separate learning utilizes competition, debate, logical reasoning—approaches that separate self from the subject or ideas. Connected learning emphasizes cooperation, discussion, listening to and clarification of the ideas of others—approaches that involve learners with the subject and one another. Belenky proposes a style of "connected teaching" which believes in students, listens to them, and encourages their intellectual growth and development (Belenky et al., 1986).

Kitchener and King examined the intellectual development of college men and women from

perspective they called reflective judgment. Like Perry and Belenky, they found a pattern of development from a belief that knowledge is absolutely certain to a view that knowledge is completely uncertain and finally to a position that accepts some knowledge as more certain or true than other knowledge, but remains open to reexamining all claims. They found that students in the first or absolute stage could not distinguish between well-structured and ill-structured problems; these students believed that all problems have clear, simple answers. Most of the students in the Kitchener and King studies were in early (absolute) or middle (uncertain) stages of development. Many faculty overestimated the intellectual maturity of their students, creating the potential for dissonance between teaching strategies and learning readiness (King, Kitchener and Wood, 1985; King, Wood and Mines, 1990).

Particularly useful for the purposes of this discussion is Marcia Baxter Magolda's analysis of student development and academic experience. She, too found students moving from *dualism/certainty/absolute* knowing through *transition/uncertainty/multiplicity* to what she called *independent* knowing and then, generally after graduation, to *contextual* knowing. Baxter Magolda interviewed college men and women over five years to trace their epistemological and intellectual development and to explore the effects of certain academic experiences on their growth and development. Because we feel that her work has especially useful implications for accounting faculty, we present some detail here. Figure 3.1 depicts Baxter Magolda's finding and provides a model of the basic pattern of student development (Baxter Magolda, 1992).

Baxter Magolda's work has the advantage of approximate balance in the gender of students interviewed. Like Perry and Belenky, she found that only a few students reached the final step, what she called the contextual pattern of knowing (2% of seniors, 12% of fifth year interviews). Freshmen were primarily (about 70%) absolute knowers, with the rest transitional. Sophomores were about evenly divided between absolute and transitional knowing; most juniors and seniors practiced transitional knowing. The independent pattern of knowing appeared in 16% of senior interviews and 57% of fifth year interviews, suggesting significant growth in these pivotal years. Baxter Magolda's findings suggest that accounting faculty whose students are most likely to be juniors and seniors can expect to find the majority of their students using the transitional pattern of knowing. Accounting courses can support students in their uncertainty and challenge them to move toward independent knowing.

In addition to describing the patterns of knowing, Baxter Magolda offers suggestions for teaching. For example, independent knowers want to be evaluated on their expression of their own ideas, a skill clearly important for accounting professionals. The following excerpt from a senior interview shows one student's response to an evaluation technique and typifies the material Baxter Magolda presents (p.144):

"Things were evaluated by how you explained yourself. It's essay questions. If you'd come up with a completely wrong answer, a wrong answer compared to what the teacher thought and you came up with a good idea about how to back it, then you would get credit for it. The answer wasn't the main thing; it was how you explained it."

Accounting faculty who want to promote independent, intentional learning may well start by considering the relationship between how they teach and evaluate students and the intellectual development of those students.

FIGURE 3.1
BAXTER MAGOLDA'S EPISTEMOLOGICAL REFLECTION MODEL

<i>Domains</i>	<i>Absolute Knowing</i>	<i>Transitional Knowing</i>	<i>Independent Knowing</i>	<i>Contextual Knowing</i>
Role of learner	<ul style="list-style-type: none"> Obtains knowledge from instructor 	<ul style="list-style-type: none"> Understands knowledge 	<ul style="list-style-type: none"> Thinks for self Shares views with others Creates own perspective 	<ul style="list-style-type: none"> Exchanges and compares perspectives Thinks through problems Integrates and applies knowledge
Role of peers	<ul style="list-style-type: none"> Share materials Explain what they have learned to each other 	<ul style="list-style-type: none"> Provide active exchanges 	<ul style="list-style-type: none"> Share views Serve as a source of knowledge 	<ul style="list-style-type: none"> Enhance learning via quality contributions
Role of instructor	<ul style="list-style-type: none"> Communicates knowledge appropriately Ensures that students understand knowledge 	<ul style="list-style-type: none"> Uses methods aimed at understanding Employs methods that help apply knowledge 	<ul style="list-style-type: none"> Promotes independent thinking Promotes exchange of opinions 	<ul style="list-style-type: none"> Promotes application of knowledge in context Promotes evaluative discussion of perspectives Student and teacher critique each other
Evaluation	<ul style="list-style-type: none"> Provides vehicle to show instructor what was learned 	<ul style="list-style-type: none"> Measures students' understanding of the material 	<ul style="list-style-type: none"> Rewards independent thinking 	<ul style="list-style-type: none"> Accurately measures competence Student and teacher work toward goal and measure progress
Nature of knowledge	<ul style="list-style-type: none"> Is certain or absolute 	<ul style="list-style-type: none"> Is partially certain and partially uncertain 	<ul style="list-style-type: none"> Is uncertain—everyone has own beliefs 	<ul style="list-style-type: none"> Is contextual; judge on basis of evidence in context

A comparison of Baxter Magolda's model (Figure 3.1) and our diagram of the intentional learning process (Figure 2.2) reveals similar patterns of intellectual growth. The process of learning—attaining knowledge, developing intellectual skills, and learning intentionally—mirror Baxter Magolda's developmental stages of absolute, transitional, independent, and contextual knowing. In both processes, students move systematically through the steps (that is, they don't jump from absolute to independent knowing without passing through a transitional phase). The roles of learner and teacher at the different stages of knowing are consistent with the learning to learn tasks of the student who is at the comparable point in the intentional learning process. For example, in the absolute knowing stage, the role of the learner is to obtain knowledge while the role of the teacher is to communicate knowledge and assure student understanding. These roles are comparable to the first column of Figure 2.2 where the learner concentrates on acquiring knowledge and practices questioning and organizing. Without pushing the comparison to extremes, we can see that the developmental process and the intentional learning process can work together to produce mature, independent learners.

LEARNING AND KNOWING

Absolute Knower:

"The factual information is cut and dried. It is either right or wrong. If you know the information, you can do well. It is easy because you just read or listen to a lecture about the ideas. Then you present it back to the teacher."

Jim (p.77)

Transitional Knower:

"The debate and discussion progress for me is really interesting; I learn a lot more because I remember questions. And I guess I learn the most when I sit and I'm actually forced to raise my hand and then I have to talk. I have to sit there and think on the spot. I learn it better than in a note-taking class that is regurgitation."

Scott (p. 159)

Independent Knower:

"Case studies, group discussions, learning to interact with other people—I think that really helped you make your own decisions instead of spitting out facts that somebody has told you to memorize. You really make your own decisions, and you think subjectively and about things, and you decide what you what you think that."

Valerie (p. 159)

Contextual Knower:

"One independent study was this group idea of reading group. The instructor didn't force himself into the picture but was always available if we wanted to come talk to him. Instead, we just got together and talked amongst ourselves. In that way, it wasn't divorced from your everyday intellectual life. And so, at the end of the course, you didn't feel as if 'oh, I have to have this answer.' It was more or less how does this knowledge plug in to what I've learned here?"

Mark (p. 177)

Baxter Magolda, *Knowing and Reasoning in College*

We turn now to some applications of developmental theory to accounting education. In a prophetic article in 1984, Jean C. Wyer (an accountant who also holds an advanced degree in education) suggested that attention to developmental characteristics could be the key to reforming accounting education. She reviewed the then current debate between procedural and conceptual content in upper level accounting courses and suggested that the debate be broadened to include pedagogy as well as content. Wyer applied Perry's scheme to accounting education goals, including ethical and interpersonal as well as intellectual and content goals. She concluded that the goals for accounting education must "reflect the desired developmental results and....recognizing that the issues are related to pedagogical variables as well as content ones....[these goals] may also allow for the congenial marriage of all the requirements for entry into the profession with those for continuing beyond the entry level" (p. 15). Wyer interpreted the debate about accounting education as a debate between dualism and commitment and relativism. She saw that both students and faculty are often more comfortable with dualism and "the security that a closed, authoritative posture offers" (p. 17). Wyer's article suggests that accounting faculty should consider developmental level and growth as well as content in planning accounting courses. This means knowing where students are then finding ways to help them make progress in their development.

The studies described here all seem to agree that while many freshmen enter college as dualistic/absolute knowers, most college students spend most of their college years in the multiplicity/transitional knowing stage. For example, Baxter Magolda's study included fourth-year interviews with 80 students. Of those 80, only 8 had reached the independent learning stage as seniors. Perry, Belenky and others found similar results. Even many adult students have been found to be predominantly in the transitional knowing stage as learners. In addition, students may slip back

and forth from one stage to another depending on how comfortable they are with the material being studied. Faculty may infer student development by matching their observations of students against the attitudes about instruction, evaluation, and the nature of knowledge depicted in Figure 3.1 or any of the other schemes described here. We suggest that accounting faculty become familiar with one or more of these schemes so that they may recognize the developmental level of their students.

To help students mature as learners, faculty need to do more than provide content in courses. The studies cited here all suggest that faculty can be most effective if they provide both challenges and support geared to the student's developmental needs. The challenges force the student to try a different perspective; the support minimizes the student's risk in trying to move to the next stage of development. In a paper commissioned for a conference for faculty, Rodgers offered a number of very specific suggestions for applying the developmental perspective to accounting courses. He used the example of a sophomore accounting assignment and suggested how to redesign the assignment for different developmental perspectives. Drawing on his ideas, we suggest a matrix such as the one below to help plan effective learning activities for intellectual development. (See Rodgers in Frecka, 1992 for more examples.)

Figure 3.2
PLANNING MATRIX-STUDENT DEVELOPMENT

	Dualistic/Absolute Knower	Relativist/Transitional Knower
Challenges:	<p>present 2-3 conflicting views or explanations</p> <p>use a process that emphasizes differences, not similarities</p>	<p>evaluate 2-3 different points of view</p> <p>use a process that involves both differentiation and integration</p>
Supports:	<p>high degree of structure provided by instructor</p> <p>an open, encouraging atmosphere in class</p>	<p>let students structure their own learning</p> <p>class atmosphere encourages exchange of ideas with peers as well as instructor</p>

Another paper commissioned for the same conference made direct connections between developmental perspectives and the new goals of accounting education. Joanne Gainen, an expert on critical thinking, reviewed the AECC goals outlined in *Perspectives on Education* in the context of the work of Perry and Belenky. She pointed out that "students who are attracted to accounting because they believe it to be relatively free of uncertainty, 'cut -and-dried' and 'objective,' with procedures and principles to be memorized and applied algorithmically, reflect the developmental perspectives of dualism/received knowledge. This perspective is not compatible with the attainment of educational goals outlined in *Perspectives*. A curriculum that aspires to foster complex intellectual skills must confront and seek to modify such students' dualistic belief about the field" (Frecka, p. 141).

Gainen suggested a number of instructional approaches that would help accounting students develop mature intellectual skills. For examples, a model of informative testing which includes a mini test individually and again with a small group (both grades count) forces students to learn on their own, test their knowledge, and then share their ideas with their peers. The instructor structures the

assignments and test, discusses issues and problem questions, and lectures on key concepts and principles that the students have already studied. Another model, called cooperative controversy, involves groups of students in developing both intellectual and interpersonal skills. Working in groups of four, pairs of students study and present to their partner pair a position on a controversial subject. Then they switch sides, study, and present the other side of the argument. Each student writes a paper stating and supporting her final position on the subject. This approach offers both challenges and support to student who are beginning to become relativistic thinkers.

It should be clear from this brief discussion that a student's ability to learn intentionally, that is, her readiness to question, organize, connect, reflect on and adapt knowledge, depends heavily on her developmental position. Faculty should not expect a student to succeed on assignments that are beyond her level of intellectual development. For example an absolute knower could be pushed to consider and question several different views of an issue rather than settling comfortably on one easy answer, but she should not be pressed to take a stand on one of those views. Once the student abandons her insistence on absolute/dualistic thinking and moves clearly into the transitional phase of uncertainty/multiplicity, she can be asked to reflect on several perspectives and to make at least a tentative commitment to one theory or solution. Accounting students need to move rather quickly from dualistic thinking to uncertainty/multiplicity in order to understand the complexity of their subject. Knowledge of student developmental characteristics should help accounting faculty plan sequences of topics and courses that help students move through the stages of intellectual development.

The development perspective may also help faculty plan effective teaching strategies for different students. Baxter Magolda studied student academic experiences and offered suggestions for effectively teaching absolute, transitional, independent, and contextual knowers. Absolute knowers appreciated "interesting activities" in class, by which they generally meant demonstrations by the teachers or opportunities to ask questions. They valued clear explanations and a supportive, encouraging class atmosphere. Transitional knowers appreciated student involvement, by which they meant group projects, applying their learning, doing something themselves (experiments, students teaching), and formulating their own theories. Independent knowers also valued involvement, but for different reasons. They wanted to involve both faculty and peers in mutual exploration of a variety of views. Contextual knowers looked for a collegial relationship with professors and fellow learners

Several of the developmental schemes discussed here describe gender-related differences in learning styles. Belenky and associates described these as the connected style (mostly females) and the separate style (mostly males). Baxter Magolda found similar differences but broke them down even further. She described differences under each major kind of knowing as follows:

	<u>Absolute</u>	<u>Transitional</u>	<u>Independent</u>
(female)	receiving	interpersonal	interindividual
(male)	mastering	impersonal	individual

As her terms suggest, Baxter Magolda found men's styles more individual or separate, women's more interpersonal or connected. It is important to remember, however, that not all men use one style and all women the other, nor does one person use one all the time. These are tendencies or preferences. However, in view of the increasing numbers of women in accounting classes, some attention should be paid to these differences. Accounting faculty might adapt assignments to accommodate different approaches at different points in the term. For example, debate is an effective approach for the separate learning style, but cooperative group work is more compatible with the connected style. An assignment might be structured to use groups to prepare for a debate, thus accommodating both approaches.

Teaching with attention to the students' developmental perspective does make a difference. Kurfiss reported several experiments in which courses were taught from a particular developmental perspective. Students in sections that matched their developmental perspective made more progress toward the next developmental position than did students who were mismatched. The course was designed to challenge students in a supportive way (Kurfiss, 1988). Accounting faculty can assume that typical students in the introductory course will be dualist/absolutist knowers. While they are not ready to be independent knowers, they can be nudged toward transitional knowing. The instructor can help them to see and accept the possibility of several truths, for example, by introducing some problems with more than one "right" answer. Accounting courses that challenge

students in a supportive way can help them move toward the independent and contextual knowing that characterize intentional learning.