Academic Advising as Learning: 10 Organizing Principles

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A learning paradigm can transform the field of academic advising. Ten organizing principles answer the two core questions raised by a focus on learning. What should the student learn through advising? How might the learning take place? The first three organizing principles define a curriculum for academic advising and are based on the premise that the goals and values of advising should be derived from the institutional mission statement and assist advisees in developing higher-order thinking skills. The other principles focus on pedagogy: creating and organizing situations that assist students in meeting learning goals. We draw upon progressive, constructivist, and social constructivist theories of education to study both the learner and the learning context.

KEY WORDS: advising approaches, advising profession, advisor role, philosophy of advising, theory of advising

This article builds on our earlier work in which we began exploring the implications of a learning paradigm for academic advising. In an earlier article (Hemwall & Trachte, 2003), we argued that using learning as an organizing paradigm in academic advising would connect the field with a growing interest in learning as a focus for higher education. We noted that the American Association of Colleges and Universities and the American Association of Higher Education both sponsored conferences that examined the power of a learning-centered approach to higher education. We also referenced important works, such as that by Bloland, Stamatakos, and Rogers (1994), Barr and Tagg (1995), and Kuh (1997), that have advanced the idea of a learning paradigm or have called for a more intentional focus on the central academic mission of higher education.

The State of the Theory about Academic Advising

Fifteen years ago, when we first began attending NACADA conferences, the field of academic advising defined good advising as "developmental advising." Neither of us was trained to oversee faculty advising systems—one of us is an anthropologist and the other a political scientist—but we understood developmental theories and saw some possible connections to advising. However, we were confused by the various meanings assigned to the term *developmental academic advising*. This mystery, of course, led us to examine more closely the idea of developmental advising (Hemwall & Trachte, 1999). In reading the literature, we found that proponents listed goals such as "cognitive, affective, career, physical, and moral growth" (Winston, Ender, & Miller, 1982, p.7) or argued that the focus should be on "the self—paying particular attention to the students' intrapersonal development" (Winston et al., 1982, p. 25). We concluded that the developmental model for advising most often was presented as a counseling model and asserted as its goal the self-actualization or personal growth of the student.

We came to agree with Bloland et al. (1994), however, that the goals implicit in the developmental model are problematic because they stand outside the core academic and curricular mission of higher education (Hemwall & Trachte, 1999). Instead, the developmental approach asserts that the development of the self is an end in itself and quite apart from the curriculum. Reliance on this model, then, disconnects academic advising from the main mission of the college. Furthering our analysis, Lowenstein (1999) compared the counseling focus of the developmental advising model to one centered on teaching and learning. He concluded, "Developmental advising focuses on the student's personal growth while academically centered advising centers on the student's academic learning" (p. 2).

For more than a decade, a lively debate about the appropriateness of the developmental approach has emerged. The first questions date back to the 1994 volume of the *NACADA Journal* in which the first two decades of work in academic advising were reviewed. Classic articles, such as Crookston's 1972 ground-breaking piece, and new articles about the current state of advising were included. Three authors directly or indirectly challenged the developmental paradigm: Ned Laff, Peter Hagen, and Dianne Strommer.

Laff (1994) pointed directly to problems created by developmental theory. He argued that developmental theory "with its static description of stable positions does not fit with advising as a process," and as a result, does not chronicle well the process of learning that a student experiences in college (p. 49).

Hagen (1994) and Strommer (1994) attempted to refocus the conversation about academic advis-

ing away from the developmental model. Hagen argued that the field of academic advising needed to look to other well-established disciplines for guidance about effective advising. He discussed the usefulness of "dialectical exchanges," similar to Socratic dialogues, for advising sessions. Modifying the Platonic version of these exchanges, he argued that advising is "something practiced by two equal interlocutors, both eager to discover the truth and to question assumptions, and both eager from that process to determine what right action is and then to do that which is best" (p. 87).

Strommer (1994) reflected on changes in higher education and the shift from teaching content to trying to understand student learning. She concluded that if "we determine that advising's primary goal should be to improve the quality of student learning by serving as a link between educational opportunities the college offers (conceived in the broadest terms) and the student, then the content of advising should further that end" (p. 94).

The influence of the developmental paradigm, however, remains strong, and in our view, continues to confuse attempts to theorize about academic advising. In a relatively recent article, Appleby (2001) demonstrated impressive connections between academic advising and teaching. He suggested that advising is linked to the mission of the institution and encouraged advisors to make institutional knowledge part of their own learning. Finally, he concluded that learning is a key goal of academic advising. Despite this promising argument, however, he recommended that advisors need to learn more about student development theory; this statement is inconsistent, or at the very least not useful, to his own argument.

Similarly, Bloom and Martin's (2002) application of appreciative inquiry represents a potentially powerful new approach, one that most certainly moves advising away from prescription and toward a style that is more focused on the student's academic learning. They conclude, however, by advocating for a goal more consistent with the developmental approach. By suggesting that the goal is the student's personal fulfillment, they left unexamined the implications of appreciative inquiry for rethinking the content of advising.

These last scholars argued that academic advising should be focused on learning. Adherence to the developmental model, however, leaves the potential implications of their arguments unrealized. In his critique of developmental advising, Lowenstein (1999) suggested a reason for the contradictions embedded in such work. He examined the premise that if academic advising is not prescriptive, it must be developmental. His examination led him to conclude that "developmental advising is not the appropriate opposite of prescriptive advising. Developmental advising is not a style of advising; it is a theory about the content of advising" (p. 2). We agree with Lowenstein that a new theory of advising must provide both an alternative content and an appropriate style of pedagogy.

Hagen (1994), Lowenstein (1999), and Strommer (1994) point the theory of academic advising away from the developmental approach. They lay the groundwork for the idea that learning should be the central concept of a new organizing framework, an idea that we advanced in an earlier article (Hemwall & Trachte, 2003). We again turn our attention to understanding more fully the implications of a learning paradigm for academic advising.

The Learning Paradigm

Using learning as an organizing paradigm has profound implications, and as we have suggested previously, calls into question many of the current practices in postsecondary institutions. First, the focus shifts from teacher to student, from what is the topic of instruction to what the student has learned. Second, this shift requires that the faculty become knowledgeable about how students learn. Finally, faculty members are not just teachers of content but are expected to design strategies that promote student learning (Hemwall & Trachte, 2003, p. 13). Similar changes would occur in academic advising. To achieve a change of focus requires, then, the answering of two questions: What should the students learn through advising, and how might the learning take place?

What Should the Students Learn? The Curriculum

We have argued that three organizing principles can be used to define the curriculum for academic advising (Hemwall & Trachte, 2003). We begin by summarizing these three principles.

Institutional Mission

Learning goals are imbedded most clearly in the institution's mission statement and related documents. Helping students understand the purpose and values of the institution is critical to their understanding the purpose of college. Our analysis of common threads in college mission statements led us to identify the first organizing principle for the advising curriculum (Hemwall & Trachte, 2003, pp. 13–14):

Principle 1
Academic advising should facilitate student learning about the mission of the college.

Higher- and Lower-Order Thinking Skills

The second organizing principle evolved from our review of the developmental psychology literature on learning. We concluded that interactions between advisors and advisees "offer the opportunity for students to learn higher-order thinking skills that involve making decisions in situations of uncertainty and ambiguity" (Hemwall & Trachte, 2003, p.15). Higher order thinking, which at times is called *critical thinking*, is achieved when a student views knowledge as constructed and contextual and comes to understand that evidence, argument, and judgment can be used to evaluate competing ideas (p.15). In focusing on the mission of the college while developing an academic advising curriculum, then, advisors can prompt the development of higher order thinking, an important learning goal for academic advising.

Principle 2
Academic advising should facilitate student learning of both lower- and higher-order thinking skills.

Connecting Institutional and Personal Goals

In guiding the student to think about the meaning and personal relevance of the concepts and values outlined in the mission statement and related documents, the advisor presses students to think critically about the decisions affecting their college experiences. This critical self-reflection can help students acquire important new understandings about how to learn to achieve certain goals.

Richard Light (2001), in his book *Making the Most Out of College*, reported the following story from a first-year student who was startled when his faculty advisor asked him why he was in college:

> I guess I was a bit flummoxed. I told him I was here to get a great liberal arts education. Then he asked me the question I haven't been able to stop thinking about for four years. "Tell me, what exactly do you mean by a great liberal arts education?" (p. 88)

The student reported that he was sent away to think about this question before the follow-up meeting during which the advisor would sign the course registration. He continued:

> . . . by personalizing our first few conversations, by asking me what my goals are for college, and by pressing me hard on the question of how studying the physical sciences fits within a good liberal arts education, I never forgot his questions . . . there is no doubt at all that when I reflect on the choices I made here, I can still hear his hard question, from that first week ringing in my ears. (p. 89)

This story illustrates the third principle:

Principle 3
Academic advising should facilitate student learning about the means of achieving the goals imbedded in the institution's mission statement and closely related documents.

These three organizing principles lay the groundwork for a curriculum for academic advising. They help advisees identify the goals and values of the institution through the mission statements and related documents, to push advisees to develop higher-order thinking skills, and to assist student learning about how to achieve institutional and personal goals.

How Might the Learning Take Place? The Pedagogy

Assisting Students in Meeting Learning Goals

Placing learning at the center of academic advising also suggests that academic advisors must create and organize situations that assist students in meeting learning goals. This task directs us to the research in education and psychology on the role of the learner and the learning context. By studying more closely the learner and the learning context, we can develop a knowledge base for use in designing effective learning strategies, or a pedagogy, that academic advisors can then employ.

We have drawn from the progressive, constructivist, and social constructivist theories of education, which provide a rich theoretical grounding for pedagogy. We begin with Dewey (1938/1997, p. 79):

> Once more, it is part of the educator's responsibility to see equally to two things: First, that the problem grows out of the conditions of the experience being had in the present, and that it is within the capacity of students; and secondly, that it is such that it arouses in the learner an active quest for information and for production of new ideas.

Here Dewey is instructing educators to pay

attention to three critical ideas in designing effective pedagogies. First, educators must pay attention to the social context of the learner. Second, educators need to understand the capacities of the individual student. Third, the activities that teachers design should foster active learners who become capable of critical thought.

In the discussion that follows, we develop some principles that focus on each of these areas. Principles four and five were drawn from literature about the individual learner. The social context is the primary focus of principles six and seven, and the final three principles offer guidance in constructing learning experiences that successfully place the student in an active role.

Students are active learners. Piaget (1926) argued that experience of an object is not enough to learn about it; learning requires active engagement with the object. More recent research suggests that students are more likely to learn in situations that require active engagement with information and the subsequent construction of ideas (Kitchener & Fischer, 1990). Similarly, thinking about academic advising as learning requires that educators understand and apply the principle that students learn through the active construction of knowledge. However, advisors must do more than just make the students be active. As Dewey (1938/1997) suggested, the context in which the information is learned and the student's motivation to learn are both essential. An effective pedagogy must acknowledge that the student's learning processes, the social context, and the interaction with the advisor all affect the possibilities for learning. The construction of knowledge is based on many variables.

We accept then that the student is active, not passive, and that knowledge is constructed. We also think this position is consistent with a curriculum based on the encouragement of higher order thinking and personal goal setting as guided by the academic mission. This assumption in turn informs our pedagogical principles.

For example, consider the situation in which one of us was approached by a new advisee to sign a course selection form:

> Insisting that he sit down, I asked why he wanted to take these particular courses (he was going into his senior year and the courses did not seem to fit any noticeable pattern). At first he said that he didn't know; he just thought they were interesting. I switched the conversation to his goals after graduation, which included community and urban planning. After he discussed the kinds of work he might enjoy, I moved back to how he thought his academic work might have helped him move toward these goals. He finally confessed, looking sheepish, that all he wanted to do is choose the "easiest" courses he could find.
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> I pulled out a copy of his academic record and asked him to look it over and tell me about any patterns in course choices he could identify. After his study, he was surprised to see that an environmental interest had emerged during his college years. He had begun college as a biology major, and even though he subsequently switched to anthropology, he periodically had taken environmental courses. This secondary track, he thought aloud, was a nice complement to his professional interest in urban planning.
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> At this point, he returned with more engagement to his course choices for his senior year. Such a change in approach from the beginning of our conversation was a shift in how he was constructing his understanding of college and the connection of these experiences to his own learning.

Principle 4
Academic advisors should view students as actively constructing their understanding of the mission of the institution, including concepts like becoming responsible citizens, liberally educated persons, and critical thinkers.

Knowledge of the learner. Research suggests that creating effective learning strategies requires some understanding of the learner. Educators know that some students learn better in their classes than do others, and frequently, they can see why. Some students will tell us that they "can't do" multiple choice exams; others say, "I can't write essays." Still others ask to sit in front of the room or to tape lectures. All teachers have had students who are wonderful participants in class but surprise them by failing to demonstrate the same knowledge in a written exam. Such examples illustrate how different personalities and various ways of processing and expressing information create particular strengths and weaknesses.

In studying these variations in learning, researchers have discussed aspects of such differences. For example, Kolb (1981) identified different *learning styles*, and Gardner (1983) called different ways of thinking and processing information *multiple intelligences*.

Stage, Muller, Kinzie, and Simmons (1998) argued that how students learn can be the result of many variables, including learning styles, multiple intelligences, gender, and ethnicity. The research about the possible interrelationships of these variables is not clear, but it suggests that such differences are often changeable. In fact, some researchers suggest that students can be guided to overcome certain weaknesses and make adjustments to the different ways of knowing and learning of others. Silverman and Casazza (2000, p. 204), for example, argued that different approaches to learning do not mean different abilities to learn, and that "approaches to learning can be modified through strategy instruction in order to increase the learner's repertoire."

When an advisor is working with an advisee, some knowledge of the student's strengths and weaknesses, or *approaches to learning*, is important to help the student learn effective skills. Pointing to Brookfield's work, Silverman and Casazza (2000, p. 30) concluded that students need to learn to identify different types of situations and be able to make adjustments.

In the NACADA monograph on advising and learning (Hemwall & Trachte, 2003), we discussed the case of Mary, a bright student who was struggling in chemistry. After receiving an academic deficiency report, the advisor had called Mary into the office. She admitted that her mind wanders during class, even though she often is thinking about concepts the instructor is discussing and relating them to ideas from her English class. By the time she refocuses, however, she has missed many of the details of certain formulas or even the instructor's main point. She expressed anger about how the multiple-choice exam format did not allow her to describe the important interconnections that she had perceived.

We presented the case study to examine what the advisor might do. For good reason, the response of many advisors is to refer Mary to academic support services for tutoring and help with note taking. However, such a solution may not address the real issue. Mary is bright and hard working. The interconnections she makes between her chemistry and English classes are interesting. Clearly, she is capable of higher order thinking, and therefore, the advisor might best serve Mary by considering her a learner and ask, "Who is Mary?" The important clues are in her self-description: wandering attention, ability to grasp broad concepts but not retain the details of the explanation, her frustration with multiple choice exams. The advisor should build on this information by asking her to describe her experiences in other types of classes. When does she feel more confident about learning? What other situations have produced similar frustrations? How does she study?

By discussing her strengths and comparing them to the style of the instructor and class, the advisor can make Mary aware of the differences. This step is the beginning to helping Mary design alternative approaches to the class. Perhaps she needs to tape record the lectures and listen to them in short pieces later, or maybe she should join a study group that involves active discussion. A number of resolutions are possible in this case, and might even involve discussions with the instructor, but all should be guided by trying to understand how Mary learns.

Principle 5
Academic advising should incorporate knowledge about how the individual student learns.

Knowledge of the social context of the learner. When thinking about how to work with an advisee, the advisor needs to try to understand the context in which the student is working and living. Context can be broadly interpreted. Peer interactions, extracurricular activities, family influences, the media, and even the wider institutional messages can affect how the advisee understands information.

From this viewpoint, an advisor should not be surprised nor annoyed when a first-year advisee reacts with bemusement, or even cynicism, to the proposition that a liberal education promotes a love of learning. The advisor will recognize that many cues in the social context, including the marketing messages of postsecondary institutions, encourage students to view their educations as a means to an end: a job. Even more important, the advisor can see the student's viewpoint, not as a fault, but as a product of the present historical moment. With this insight, the advisor moves away from a judgmental mindset and toward becoming a teacher guiding the student toward consideration of an alternative viewpoint.

Principle 6
Academic advising should consider how the social context affects the learner's understanding of the meaning of education.

The impact of preexisting conceptions and background knowledge on learning. During the college years, a student confronts multiple potential learning experiences. In some sense, all these experiences can be understood as texts. The texts may take different forms (e.g., written and oral, formal and

informal), but all the different forms include symbols and signs that must be read by the student. The interpretations that the student attributes to these symbols and signs impact the quantity and quality of the student's learning. Therefore, educators must understand both the nature of the text and the act of reading.

The social constructivist approach maintains that all texts are cultural artifacts; they are embedded with both the viewpoint of the author and the social context in which the text was written. This tradition argues that when a student reads or hears a text, the student constructs a reading of its symbols and signs—a reading that will necessarily be informed by the experiential base of the student (Wink & Putney, 2002, pp. 60–62). It follows, then, that the form and extent of a student's learning are influenced by the preexisting conceptions and background knowledge that a student brings to an experience.

Von Glaserfeld (1995, p. 15) has argued that teachers must be concerned with "what goes on in the student's head." A student may harbor ideas that the teacher views as a misconception or misunderstanding of the signs and symbols that compose the text. Von Glaserfeld stressed, however, that teachers cannot simply dismiss these misconceptions as errors. Rather, to guide the student toward new understandings of the subject matter, the teacher needs to understand the student's current concepts for making sense of the world and appreciate that the student views her or his own understandings as viable. To prompt a change in the student's conceptions, therefore, the teacher must encourage the student to see that the new information offers counterexamples that render the student's current approach to the material as clearly inadequate (Von Glaserfeld, 1995).

Teachers also need "to determine the most effective starting point for a given lesson and the most appropriate level at which to begin instruction" (Angelo & Cross, 1993, p. 121). Learning depends upon the instructor's ability to probe the student's background knowledge. If this step is ignored, the teacher may assume that the student possesses certain knowledge or skills. If this assumption is in error, then the student will simply reject the idea or assimilate the new material into preexisting and perhaps faulty frameworks. In summary, for learning to take place, the learner must be able to connect new concepts, ideas, or information to preexisting conceptions and background knowledge (Fosnot, 1996; Stage et al., 1998).

From this work, we can derive several pedagogical ideas for academic advising. First, students must be prepared for encounters with unfamiliar concepts such as those embedded in the tradition of the liberal arts. We understand that relevant background knowledge or information should be provided or activated prior to an encounter with unfamiliar ideas. An advisor at Elizabethtown College, for example, has created an electronic discussion group among his advisees. As the time for course registration approaches, he posts questions that prompt thinking about the larger meaning of education. He then requires each advisee to post at least one response prior to the individual advising appointments. Students are asked, for example, to identify courses that might advance their critical-thinking skills or to reflect on the idea of citizenship. By participating in this dialogue, advisees both activate their own thinking about the ideals of the liberal arts and confront the thoughts of their peers. The electronic dialogue prepares advisees for a discussion with the advisor, who will engage the students in conversation around the posted questions.

These ideas encourage advisors to find ways to connect the concepts and values reflected in the institutional mission statement with an advisee's preexisting concepts and background knowledge. An effective teacher and advisor can neither ignore students' specific educational agendas nor be satisfied with claiming the higher ground. Advisors who help students discover that many jobs require lifelong learning, for example, will promote learning better than those who lecture students about the fact that an education is more than a commodity to be bought and sold.

One of us encountered exactly this situation when conducting an exercise with first-year advisees:

> After reading the college's mission statement, the entire group adopted a cynical stance and developed a consensus around the idea that a college education should focus on preparing students for the job market. Resisting the temptation to lecture about how commercialism is corrupting higher education, I instead asked students to identify the careers to which they aspired. As it turned out, several group members stated a desire to pursue the law. I then led the students into a discussion about the daily work of a lawyer—an exploration that culminated in a recognition of the extent to which lawyers exemplify lifelong learning in their daily work.

Principle 7
Academic advisors must recognize that the possibilities for learning are influenced by the advisees'

preexisting concepts and background knowledge.

Advising as Dialogues

Strommer (1994, p. 93) observed that academic advisors, like many classroom teachers, "tend to think more in terms of telling and showing students something than structuring ways to actively engage the students in learning and doing." In contrast to Strommer's description of standard advising practice stands Piaget's seminal argument that "knowledge proceeds neither solely from the experience of objects nor from an innate programming performed in the subject, but from successive constructions" (Fosnot, 1996, pp. 13–14). Piaget's perspective has been supported by recent outcomes research focused on college students; it suggests that students are more likely to develop strong cognitive skills when placed in situations that require the active identification of information and subsequent construction of ideas (Astin, 1993; Pascarella & Terenzini, 1991).

By thinking about advising as learning, one realizes the application of the principle that students learn through the active construction of knowledge. Advisors need to conceive and design situations through which students actively explore the meaning and personal relevance of the concepts and values expressed in the college mission statement and related documents. Advisors should recognize that an advisee is more likely to learn when engaged in a dialogue. This understanding of learning underlies our final three advising principles.

Researchers such as Fosnot (1996) and Kitchener and Fischer (1990) have argued that open-ended investigations are a particularly potent pedagogy. By asking questions that have no clear answers, the advisor prompts the student into an active mode that requires justification. Questions that ask students to explore the idea of citizenship, for example, both challenge the student to become an active partner in the dialogue and create a framework for discussion. The previous example about an advisee choosing the courses for his senior year by which are the "easiest" demonstrates the potential for serious advising dialogues.

Academic advisors also need to recognize that some active learning exercises work well in reinforcing existing thinking skills (an important objective) but are not effective in guiding students toward higher order thinking. To progress toward more complex levels of thinking, students must justify, defend, prove, and communicate ideas with others in the community of learners (Fosnot, 1996; Kitchener & Fischer, 1990).

Principle 8
Academic advising must be a dialogue in which the learner has the opportunity to express, justify, and discuss individual goals and ideas.

Advisor as Guide

While effective learning requires that the student be placed in an active role, the advisor must also be engaged. Dewey (1938/1997, p. 76) stressed that the teacher "must be aware of the potentialities for leading students into new fields . . . and must use this knowledge as his criterion for selection and arrangement of the conditions that influence their present experience." Vygotsky's concept of zone of proximal development clarifies further the advisor's role. It suggests that the advisor as a more advanced learner can guide the student toward the problem solutions or textual understandings that are beyond what the student can accomplish independently (Wink & Putney, 2002, pp. 85–86). The metaphor of scaffolding can also be helpful in comprehending this dynamic; scaffolding refers to the teacher's construction of a temporary framework that assists the student's learning (Gould, 1996, p. 96). As an advising dialogue unfolds, the advisor can pose understandings of the liberal arts that are more sophisticated than, but build upon, those ideas offered by the learner.

Principle 9
Academic advising must be a dialogue in which the academic advisor guides the learner.

An exercise designed by one of us illustrates the applicability of principles eight and nine to academic advising:

> This exercise involved first-year students during new student orientation. Each student was asked to write a statement of goals and objectives for his or her education. The students were then divided into groups of four or five persons, and copies of the college mission statement were distributed. As a next step, the groups were asked to identify and report on similarities and differences between their goal statements and the college mission statement. Finally, I facilitated a discussion in which the group reports were probed. In the process, key points in the mission statement were rendered transparent. I continued the exercise by asking the advisees, once again in groups, to articulate the purpose of courses in the general education core. I then asked students to read a curricular statement of purpose from the catalog and con-

trast it with their own descriptions of purpose. As with the first part of the exercise, I then guided the students through a discussion intended to clarify understandings of the text.

By asking students to articulate ideas about the purposes of education, this exercise first prompts students to activate their prior knowledge about the liberal arts and prepares them to read the catalog text. The advisor then guides the students toward more sophisticated understandings through the discussion of the similarities and differences with the catalog text. This exercise not only helps students learn about institutional mission and the purposes of the curriculum, it also requires students to use higher-order thinking skills.

Disequilibrium and Learning

Constructivist theory explicates the role that disequilibrium plays in the learning process. Following Piaget, this approach conceptualizes learning as governed by the mechanism of equilibration, which Fosnot (1996, p. 13) explained as a "dynamic process of self-regulated behavior balancing two intrinsic polar behaviors, assimilation and accommodation." Piaget argued that human beings normally incline toward the self-preserving behavior of assimilation; that is, we seek to organize experiences according to our prevailing logical structures or understandings (Fosnot, p. 13). At times, however, we confront experiences that lie beyond the grasp of our existing frames of reference (Fosnot, p. 13). Such confrontations produce moments of disequilibrium and discomfort. While denial is one possible reaction, acknowledgment that these perturbations contradict our current understanding is also likely. A search for a new understanding that accommodates the new information may be initiated. Constructivists understand learning as a "dynamic dance" (Fosnot, p. 14) between the impulse toward assimilation and the reflective nature of accommodation. As Fosnot explained (p. 13), "New experiences sometimes foster contradictions to our present understandings, making them insufficient and thus perturbing and disequilibrating the structure, causing us to accommodate."

This theme in the constructivist literature suggests that academic advisors must both foster moments of disequilibrium and guide the student through them. It is exemplified in the liberal arts student illustrated by Light (2001) and shared here with regard to advising principle three. In simpler terms, advisors need to watch out for and take advantage of the "aha moments."

Principle 10

Academic advising must guide students so that they recognize and benefit from anomalies, disturbances, errors, and contradictions.

Conclusions

Framing academic advising as learning, and as such, part of a faculty member's teaching responsibilities, changes the way faculty and administrators approach the task of advising students. Both academic advisors and administrators responsible for overseeing advising can design strategies based on these 10 principles to encourage effective academic advising. We have given small examples with some specific principles. Here we introduce three other, more broad based, examples.

Academic advisors can be provided with meaningful information and language to prompt the advising-as-learning approach. At Franklin & Marshall College, for example, the electronic advising handbook for faculty (Franklin & Marshall College, 2003) has undergone some revisions. Rather than just listing advising information, it was restructured to give prominence to learning as the focus of advising. The opening pages state the assumptions: "Franklin and Marshall's approach to academic advising is learning-centered," and "The mission of academic advising is to promote student learning." The essential questions of the work of advising are addressed in the handbook: "As academic advisers we ask, what should the student learn? How might the learning take place? As academic advisers we need an advising curriculum and pedagogies for promoting student learning." The handbook also is organized around the principles outlined in this article. It focuses on the college mission statement, includes sections on critical-thinking skills, and articulates pedagogies. It includes advice on strategies such as how to organize group advising sessions and how to use technology in advising.

Students can also be prompted to be active in advising sessions. At Lawrence University, for example, new students complete an introspection exercise prior to a required advising meeting during the midterm reading period. This written self-reflection, which the student gives to the advisor during the appointment, begins with questions about the student's initial expectations and goals. Through subsequent questions, the student is asked to identify the connection of those goals to the college's mission statement, and then to assess her or his own study skills, course progress, and planning for changes and adjustments. This activity provides critical information to the advisor about

the advisee, and prompts higher order thinking before, during, and after the session. The exercise is based on the recognition that the advisee actively constructs personal experience in college. Finally, it allows the advisor to prompt and guide the student in these constructions.

This learning-based approach is not limited to small campuses. An initiative at the University of Alabama–Birmingham, a large public university, demonstrates how a learning paradigm can be easily adapted. At this university, teaching faculty and professional advisors have combined critical thinking skills and academic advising in an innovative approach to retain a high-risk, new student population. A course, University 101, has been designed to use existing resources and expertise on campus. Faculty members teach students critical-thinking skills that are needed in the university environment, especially in core curriculum classes, while academic advisors help students to apply these skills in evaluating their educational goals and identifying realistic strategies for achieving these goals within the college context. These experiments, along with many others that all advisors undoubtedly employ, demonstrate the power of thinking about academic advising as learning.

If academic advising is understood as central to student learning, the work of both faculty and professional advisors becomes connected to the central mission of their respective institutions. The faculty advisor then can see academic advising as consistent, in fact, a seamless part of their teaching and scholarly roles. Professional advisors can see how they are working toward the same mission as the faculty. Academic advising, the one element in all institutions that is formally structured into the student's academic life, truly becomes the context in which connections between the student's individual goals and the institutional mission can be discussed.

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