Advising as Teaching: Establishing Outcomes, Developing Tools, and Assessing Student Learning

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In every way that matters, advising is a form of teaching. Using Bloom's (1956) taxonomy of educational outcomes, I explain how to develop learning objectives within advising contexts. The article also suggests commonly available educational materials, such as university catalogs, as content delivery mechanisms for students; in addition, it offers ideas such as reading guides and on-line lectures. Finally, I explain how to assess student learning, that is, how to determine the extent to which students' learning outcomes mirror the objectives established by the advisor.

KEY WORDS: assessment, instructional design, teaching

Relative Emphasis: practice, theory, research

Speak to most higher education professionals about the nature of teaching, and they will talk about interactions between faculty members and students in the classroom. Yet, confining discussions of the craft of teaching to classroom interactions is akin to confining discussions of travel within the context of airplanes. Dictionary.com (Teaching, n.d.) defines teaching as "to impart knowledge of or skill in." Frost (2000, pp. 12–13) offered these insights about developmental academic advising based on the writing of Crookston (1972):

> Students and advisors should share responsibility for both the nature of the advising relationship and the quality of the experience. Developmental advising . . . is a rational process. As such, it employs environmental and interpersonal interactions, behavioral awareness, and problem-solving, decision-making, and evaluation skills. . . .The advising relationship is vital; determining and achieving both long-term and immediate goals are in its domain.

In all ways that matter, good developmental advising is a form of teaching at least as important as faculty-student interactions in the classroom. Both developmental advising and teaching

1. require collaboration between educators and students.
2. involve rational, goal-directed behavior.
3. focus on problem-solving, decision-making and evaluation skills.

So, advisors should be able to apply the tools of good teaching to the advising process. Yet, both faculty advisors and professional advisors may be stymied when trying to apply the tools of classroom teaching to the advising process. In this article I address those issues in three parts: developing learning objectives for advising, identifying and creating instructional materials that support those objectives, and assessing student mastery of the material. Table 1 lists educators' and students' responsibilities with respect to advising as a form of teaching and learning.

Learning Outcomes

Bloom's (1956) taxonomy of educational outcomes is a well-established tool for creating learning outcomes comprising three domains of learning: cognitive, affective, and psychomotor. Roughly speaking, the cognitive domain is about knowing, the affective domain is about feeling, and the psychomotor domain is about doing. In his original work, Bloom created levels for both the cognitive and affective domains; later scholars have done the

Table 1 Responsibilities of educator and learner

Goals of Teaching	Role of Educator	Role of Student
Setting goals	Decide what students should learn	Commit to learning the content
Delivering instruction	Identify or create vehicles for content delivery	Engage in learning activities
Assessing learning	Design instruments and procedures for assessing student learning	Demonstrate acquisition of knowledge, skills, and attitudes/ beliefs using assessment instruments and procedures

same for the psychomotor domain. The levels proceed from simple to complex as shown for the cognitive domain in Table 2. Each level of the domain has suggested action words that can be used to develop learning objectives; examples are listed in Table 2. (Gainen & Locatelli, 1995, p. 48).

Like all good goals, learning objectives should be SMART: specific, measurable, attainable, realistic, and timely. By starting the advising process with rigorous learning objectives, advisors will know where the process is headed. Lewis Carroll reminded readers (Brainyquote.com, 2007): "If you don't know where you're going, any road will get you there."

Students master learning objectives for advising over time, as they do in the classroom. For example, few philosophy professors would expect students to critique the writings of Descartes on the first day of an introductory class; in the same way, advisors should start small, asking advisees to master simple, straightforward tasks initially and more complex learning over time. Here are some examples of cognitive learning objectives for advising, proceeding from the simple to the complex:

1. List the classes students can take to fulfill general-education critical-thinking requirements. (knowledge)
2. Explain, in their own words, the importance of general education in their degree. (comprehension)
3. Calculate their grade point average. (application)
4. Compare and contrast career options based on choice of major. (analysis)
5. Develop a plan to graduate within 4 years. (synthesis)
6. Decide which job offer to accept. (evaluation)

By developing learning objectives, groups of advisors enjoy the opportunity to dialogue about the skills and knowledge they want advisees to learn, leading to stronger, more consistent advising over time.

Content Delivery

In traditional classroom teaching, content is most frequently delivered through textbooks, but classroom teachers often develop or rely upon ancillary materials as well: handouts, lecture slides, videotapes, discussion guides, and the like. The process is similar for advising. Students can consult the university catalog for program-related information; advisors can develop tools such as reading guides to help students focus on the relevant parts of the catalog for specific tasks. A reading guide could open with a statement of one or more learning outcomes; it might then show students how to access the portion of the on-line catalog related to general education and provide several questions, exercises, and activities focused on those learning outcomes.

Properly constructed, reading guide activities can help students develop critical thinking skills and provide a basis for discussion with advisors, thus

Table 2 Levels, definitions, and key words of Bloom's taxonomy (cognitive domain)

Domain Level	Definition	Key Words
Knowledge	Recall or recognize information	Define, list, identify
Comprehension	Restate concepts or procedures through translation, interpretation, or extrapolation	Describe, translate, illustrate
Application	Use knowledge to achieve a specific purpose; some discretion or inventiveness may be required	Generalize, relate, organize
Analysis	Extract essential elements, relationships, or principles of a problem, situation, theory, idea	Compare, contrast, classify
Synthesis	Combine and integrate ideas and information from a variety of sources to create an original product (communication, plan, abstract relationship)	Design, predict, document
Evaluation	Identify the most desirable choice or action in a choice situation in terms of internal evidence or external criteria	Test, access, decide

Note. Adapted from Gainen and Locatelli (1995).

moving advising from the mere prescriptive to developmental. Consider, for example, the following list of statements from a reading guide about general education; students must indicate whether each statement is always true, sometimes true, or never true.

- I can fulfill all my general education requirements at a community college.
- I must take at least 16 general-education courses as part of my degree program.
- General education courses should be completed before starting courses in my major.
- Courses in my major are more important than general education courses, so I should select the easiest general education courses I can and just get through them as quickly as possible.
- Science courses comprise three main areas: mathematics, physical science, and life science.

While advisors must initially invest time and energy to develop some content delivery tools, the investment will pay off over time. Depending on the specific area under consideration, advisors can also use previously published materials to deliver content. For example, *Now, Discover Your Strengths* (Buckingham & Clifton, 2001) allows students to complete and interpret Gallup's *StrengthsFinder* assessment (www.strengthsfinder.com). *StrengthsFinder* results can form the basis for discussions about study strategies, choice of major, or career direction.

Course management systems, such as Blackboard, are intuitive and easy to use for both students and advisors. They can incorporate readings, handouts, chat rooms, threaded discussions, PowerPoint slides, and video lectures. Most campuses have information technology departments that will work with advisors in developing and hosting video materials; advisors on campuses without those facilities can easily use Web cams and other readily available tools to develop and deliver advising content.

Assessment

For better or worse, assessment has become a watchword of every area of higher education. Assessment can be formative (designed to promote learning and dialogue) or summative (designed to assign a grade); focused on program effectiveness, student learning, or scores of other areas; formal or informal. The closing paragraphs of this article focus on assessment of student learning in advising; that is, how do advisors know the extent to which student learning outcomes reflect established learning objectives?

Angelo and Cross (1993) developed a plethora of classroom assessment techniques (CATs) that can be applied to the advising process. They defined classroom assessment as (p. 4) "an approach to help teachers find out what students are learning in the classroom and how well they are learning it. This approach is learner-centered, teacher-directed, mutually beneficial, formative, context-specific, ongoing, and firmly rooted in good practice."

In addition, Angelo and Cross (1993) identified seven basic assumptions associated with classroom assessment (pp. 7–11):

1. The quality of student learning is directly, although not exclusively, related to the quality of teaching. Therefore, one of the most promising ways to improve learning is to improve teaching.
2. To improve their effectiveness, teachers need first to make their goals and objectives explicit and then to get specific, comprehensive feedback on the extent to which they are achieving those goals and objectives.
3. To improve their learning, students need to receive appropriate and focused feedback early and often; they also need to learn how to assess their own learning.
4. The type of assessment most likely to improve teaching and learning is that conducted by faculty to answer questions they themselves have formulated in response to issues or problems in their own teaching.
5. Systematic inquiry and intellectual challenge are powerful sources of motivation, growth, and renewal for college teachers, and classroom assessment can provide such challenge.
6. Classroom assessment does not require specialized training; it can be carried out by dedicated teachers from all disciplines.
7. By collaborating with colleagues and actively involving students in classroom assessment efforts, faculty (and students) enhance learning and personal satisfaction.

Advising is a form of teaching; advisors are teachers in every meaningful sense. Thus, classroom assessment techniques can be adapted to give advisors feedback about their advisees' progress in mastering learning outcomes.

Fundamentally, CATs are simple, easy to use techniques for assessing student learning in a variety of contexts. The following examples can be employed by advisors:

- one-minute paper. Students write about a specific topic/issue for one minute. For example, the student can be asked to explain the role of general education courses in his or her major.
- muddiest point. After an advising session or other learning activity, students can summarize the information they understood the least.
- pro and con grid. Students list the pros and cons of a specific decision, such as changing their major or taking on-line courses.
- most important point. Similar to addressing the muddiest point, students summarize the most important point of an advising session.
- focused listing. Students create a list of items based on a specific prompt. For example, the advisee can be asked to list at least three careers she or he could pursue with a degree in her or his major.

Regardless of the specific assessment techniques used in advising contexts, a few fundamental truths are applicable:

- Assessment activities should be connected to learning objectives.
- Assessment results should not be used to evaluate the effectiveness of individual advisors.
- Over time, assessment results should inform revisions of both learning objectives and content delivery tools.
- Aggregated assessment results from individual students can be used to facilitate program assessment of academic advising.
- Assessments should be evaluated with a preestablished rubric to promote consistency.

A rubric is an established taxonomy that promotes holistic evaluation of student learning. As with learning objectives, collaborative development of rubrics provides advisors an opportunity to discuss their expectations of students. Developing and using rubrics involves at least as much art as science, but they have become well-accepted tools in higher education.

The illustration below connects a learning objective with an assessment activity and a related rubric. It is based on a rubric used at my institution to assess the writing competence of all degree-earning students.

- Learning objective: Students will explain the role of general education in their degree.
- Assessment activity: Students will write one-minute paper based on the prompt "What is the role of general education in your degree program?"
- Rubric for evaluating one-minute paper:
  - Level Three: General education is seen as a valuable component of education. Responses include discussions of specific benefits of general education within the context of the student's major.

Table 3 Rubric used at Cal Poly Pomona to assess writing skills of students

Score	Set of Standards
6	A superior response will address itself to all aspects of the question. Though it may have occasional faults, it will be well organized, detailed, and generally well written.
5-4	These scores will be useful for a well-handled paper that is weak in some aspects of the superior response; for example, it may slight one of the parts of the question; it may not be as clearly organized as the superior response; it may have some minor grammatical inconsistencies. Otherwise, the paper should be competently written.
3	This score will be useful for the following kinds of paper: —those that are only descriptive or narrative —those in which the language is overly clichéd —those that are overly repetitious —those that are general and superficial This score will also be useful for papers that are developed with some specificity and detail but are marred by more than a few minor grammatical inconsistencies.
2	This score is to be used for papers that exhibit serious weaknesses in structure, syntax, diction, and/or development.
1	This score is to be used for papers that show very little understanding of the question or suggest incompetence in structure, syntax, and diction.

Note. California State Polytechnic University, Pomona (2004)

- Level Two: General education is valued, but is not integrated within the context of the student's major. It is seen as separate and distinct; it may be described as something to "get through" or as a "necessary evil."
- Level One: General education is seen as a useless waste of time. Responses may focus on taking the easiest general education courses available or finding the instructors who require the least amount of writing.

Rubrics do not universally have three levels; they may have five or seven. In any case, they should be specific enough to be useful in evaluating individual responses quickly and easily but not act as a straightjacket. Furthermore, the levels should be sufficiently differentiated to provide clear distinctions in student performance. See Table 3.

Although advisors will not necessarily be evaluating students' writing competence, the rubric in Table 3 provides an illustration for consideration. In addition, Allen (2004) provided many practical, helpful suggestions for rubric development and other assessment issues.

Conclusion

Educators are responsible for developing a student holistically; advisors and classroom teachers, along with others, share that responsibility throughout each student's academic career. Applying the tools and techniques of classroom teaching to the advising process emphasizes the connection between the disciplines, benefiting members of both.

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