Feature Book Review

“The A-Word” Made Easy

Review of: *Classroom Assessment Techniques: A Handbook for College Teachers, Second Edition*, by Thomas A. Angelo and K. Patricia Cross; 1993; 427 pp.; Jossey-Bass (San Francisco, CA); ISBN: 1-55542-500-3; \$48.00

Reviewed by Marshall D. Sundberg, Department of Biological Sciences, Emporia State University, Emporia, KS 66801

In 1988, before assessment became the “A-word,” Cross and Angelo produced a short volume containing 30 simple classroom assessment techniques. These were arranged in a practical how-to format that made it easy for college faculty with no background or training in science education to apply assessment in the classroom. It was my introduction to using Minute Papers and Concept Maps to understand what my students were, or were not, learning. By 1993 when the current edition was first published, “assessment” was becoming the buzz word for teacher evaluations and course and curriculum checklists to satisfy accreditation and administration requirements. It has become what most faculty think of when the term “assessment” is used. This is NOT what *Classroom Assessment Techniques* is about, and a significant improvement in this edition, filling the first quarter of the book, is a section entitled “Getting Started in Classroom Assessment.” The first chapter is essential reading for anyone not familiar with formative assessment. It makes clear that the tools provided in later chapters are to be used by individual instructors to improve their students’ learning by fine-tuning their own teaching. The results are *not* meant to be “turned in” to someone else (although you may want to include some in a teaching portfolio).

The critical first step in classroom assessment is elaborated in Chapter 2. It seems obvious that the first thing we must do in preparing to teach a course is to decide what to teach. For most of us this means deciding what content to cover and in what order. The content is discipline-specific, and the authors acknowledge that this must be considered.

However, what they have in mind is to force a much broader and basic understanding of your teaching goals, The Teaching Goals Inventory (TGI). This instrument is presented and discussed in the chapter and provided as a self-scorable worksheet form in Appendix B. The individual teaching goals are grouped into six clusters: Higher Order Thinking

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Address correspondence to: Marshall D. Sundberg (msundber@emporia.edu).

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Skills; Basic Academic Success Skills; Discipline-Specific Knowledge and Skills; Liberal Arts and Academic Values; Work and Career Preparation; and Personal Development. These clusters are covered in Chapters 7, 8, and 9 of Part Two. At first glance TGI may appear to be too simple and inconsequential to take seriously. However, it forces the instructor to seriously consider some of the underlying assumptions for teaching and learning that we often take for granted, and routinely ignore, in a typical classroom. Both novice and experienced teachers will benefit from completing, and using, the TGI to direct their classroom assessments.

The final three chapters of Part One provide suggestions for planning and implementing classroom assessment. Step-wise outlines of recommended and alternative approaches are provided, but the bottom-line messages are as follows: first, start small, and second, provide timely response to students. The last chapter provides 12 specific case studies of successful projects. Unfortunately none are from biology, but math, statistics, astronomy, and nursing are represented and the specific teaching goals addressed are common to all biology courses. The math example concentrates on problem-solving skills. The statistics module focuses on learning and study skills, strategies, and behaviors. Analysis and critical thinking are the focus of the astronomy example, and the nursing module focuses on students' awareness of their attitudes and values.

Part Two is the meat of the book and expands the 30 classroom assessment techniques (CATs) outlined in the first edition to 50. Twenty-seven of the CATs are identical, but in several cases they have been regrouped into more logical broad clusters to make it easier to identify appropriate assessments to measure particular goals. In every case the description of each tool has been significantly expanded. One useful improvement is to replace the original "Ease of Use" rating, a single numerical rating from 1 (easy) to 5 (complex) with separate estimated levels of time and energy (low, medium, high) for the following: 1) faculty preparation for use; 2) student response; and 3) faculty analysis of the data collected. Every CAT begins with a brief *Description* and statement of *Purpose*, both of which are expanded in the 2nd edition. A new section relates the individual CAT to *Related Teaching Goals* from the TGI. The *Suggestions for Use* and *Examples* sections are expanded, and the latter now consists of two to four mini-case studies related to a specific discipline. This arrangement is augmented by an index of brief examples, arranged by discipline, at the beginning of Part Two. Six of the 50 CATs described have a biological example. The final sections for each CAT are *Turning the Data You Collect into Useful Information*; *Ideas for Adapting and Extending this CAT*; *Pros*; *Cons*; *Caveats*; and *References and*

Resources. Each of these sections is expanded in the 2nd edition.

According to the authors, "... no other Classroom Assessment Technique has been used more often or by more college teachers than the Minute Paper." I agree. It is the first CAT I tried more than two decades ago, and I still regularly use it in classes. Simply put, a few minutes before the end of class have students respond in a sentence or two to one or two simple questions. Typically this is a variant of "What is the most important thing you learned in class today?" or "What important question remains unanswered?" Students write their response, anonymously, on a note card or small sheet of paper and drop it off as they leave class. A quick perusal will verify if there is congruence between what students learned and what you thought they should learn. A useful variant, new in the 2nd edition, is the Muddiest Point. Here the question for students to respond to is "What was the Muddiest Point in class today?" In a minute or two of reviewing student's responses you can determine what concept or concepts you should review at the beginning of the next class. As with any CAT, two things are critical for student buy-in to get meaningful results. Student responses must be anonymous. This is a formative assessment meant only to improve student learning in the classroom, and there should be no threat to students that might bias their responses. Second, you must provide timely feedback to students. If they know you are reviewing material or modifying what you planned to cover based on a CAT from the previous class meeting, they will appreciate that you take their responses seriously and provide even better responses in the future.

A final new feature of the 2nd edition is Chapter 6, Choosing the Right Technique. This is not a book to read cover-to-cover, and most instructors will prefer to quickly focus on one or two CATs that will provide an answer to a specific question about their students' learning. Above I mentioned the Index by Disciplines in the Brief Examples. This is organized as Table 6.2. Table 6.1 is an alphabetical index by CAT name. If you've heard about the Minute Paper you can quickly determine that this is CAT #6 in Chapter 7. The final index, Table 6.3, lists the individual CATs by cluster group and provides the CAT # and chapter number. My only disappointment with this edition is that neither the table of contents, list of CATs in the introduction to each cluster group, nor any of the indices provides the page number for a specific CAT. This simple addition would make it quicker to locate a particular CAT of interest.

My copy of this book is well-worn and well-annotated, and my first edition is dog-eared, stained, and filled with sheets of related reprints. If you own a copy you'll know what I mean. If not, you should get your copy and get started doing classroom assessment!