

ISSUE II

ACADEMIC AND CLINICAL INTEGRATION: THE NEW STANDARDS AND BEYOND

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A structural flaw in American higher education is that the same person who serves as a course instructor assesses the effectiveness of that course, creating opportunities for conflict of interest (Holyer, 1998). Davis (1995) and Rassi (1998) have reminded us that as demands for greater accountability for degree programs grow; this becomes an increasing liability, absent a meaningful program of assessment. Formative assessment offers the opportunity for instructors in the classroom, clinic, and/or laboratory, at any level in the educational continuum, to obtain valuable feedback about student learning. When conducted throughout the term, rather than just at the end of the term, adjustments can be made that can improve teaching effectiveness, and thus student outcomes, for current and future learners. Nevertheless, there are a number of reasons why Communication Sciences and Disorders (CSD) faculty may be inclined to resist adopting assessment into their daily activities, not the least of which may be that they do not understand the *why* behind it. It is, therefore, critical that the departmental leadership provide helpful information, examples, and guidance to assist them in independently discovering the benefits of assessment so that they can routinely incorporate it into their work.

The discipline of CSD provides education at three fundamental levels: undergraduate, graduate clinical, and doctoral research. Approximately 85% of students enrolled in graduate clinical programs are graduates of undergraduate CSD programs (CAPCSD, 2000) and 66% of research doctoral students are graduates of graduate clinical CSD programs (Joint Ad Hoc Committee on Doctoral Shortage, 2002). In addition, it is likely that a very large percentage of faculty teaching and conducting

research in all three levels of CSD education, earned degrees in CSD. This scenario presents some built-in incentives. That is, if we can identify measurable core objectives and benchmarks for graduates at each level of CSD education, we can

- (a) enhance our perspective of what students are expected to do nationally (for example, 71% of Harvard undergraduate students write 10 or more papers each year with 83% totaling over 60 final draft pages);
- b) monitor and adjust those objectives as they evolve over time; and
- c) make better use of the limited time we have to educate students by removing the need for remedial education, or at the very least, know precisely what remedial education is necessary at the beginning of a degree program.

Regular and multilateral feedback between the levels of CSD education is likely to benefit the entire discipline.

The NCAA classifies each college/university's athletic programs based on variables such as strength of schedule and level of financial support for athletics. As a result, it is expected that the performance levels for programs in the three different classifications will differ and should not be compared against one another. Conversely, the Carnegie Foundation (2000) classifies each college/university academically based on variables such as the number of baccalaureate, master's, and doctoral degrees awarded. Different expected performance levels are not assumed between institutions of different Carnegie classifications offering the same degree. CSD academic programs are housed in institutions of various Carnegie classifications, providing additional incentive to identify core benchmarks for our graduates. The lack of common measures of academic outcomes across institutions, combined with the public's apparent thirst for information about quality indicators when searching for a college/university, led to the annually published college/university rankings initiated by U.S. News and World Report in 1983. Today they are read by millions of people worldwide. Rankings have

expanded into a variety of specific degree programs, including Audiology and Speech-Language Pathology (A/SLP). Since the mid-1990s, their methodology has increased the use and weighting of other *outcome measures* and reduced the weighting of reputational surveys to 25-40%; however, the rankings in A/SLP (limited to graduate clinical programs) remain exclusively reputational surveys.

Bloom (1956) classified cognitive abilities along a hierarchy of six levels ranging from simple to complex: knowledge, comprehension, application, analysis, synthesis, and evaluation. When describing course, clinic, or lab objectives, certain verbs match up best with each of these categories (see Appendix A). Light (2001) asked college seniors to identify a single change that would most improve teaching and learning and two responses predominated:

1. enhance awareness of “the big picture”; and
2. elicit helpful and regular feedback from students so that the instructor can make corrections along the way.

Cross recommends the one-minute paper, a popular classroom assessment technique requiring 1-2 minutes at the end of class and approximately five minutes of office time for analysis. It asks students two questions:

1. What was the main point that you learned today? and
2. What is your primary unanswered question?

Responses should be anonymous for the best results. Angelo and Cross (1993) identified nearly fifty different classroom (formative) assessment techniques in ten different categories, including knowledge, critical thinking, application, and self-awareness (see Appendix B). As programs begin to assess the knowledge and skills of students within a program, it is important that they remember there are many methods that can be used for this purpose. Programs will need to have a system developed that will assess knowledge throughout the program. What one program will use may be different from what another program uses. An effective formative assessment will assist in identifying areas of limitations for a student and should guide a program in determining leveling classes which would help the student achieve the competencies identified by the program.

In summary, there is an urgent need for CSD faculty to learn more about the benefits of, and methods for, incorporating assessment into their courses and the academic programs in which they play a role. Department leaders who are familiar with meaningful assessment are needed to facilitate this acquisition. The Joint Committee on Academic Assessment will launch a web page in summer of 2003 devoted entirely to assessment in CSD. It will include a large number and variety of links that should assist with the adoption of assessment.

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Appendix A

Suggested Verbs for Course Objectives for:

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Count	Associate	Add	Analyze	Categorize	Appraise
Define	Compute	Apply	Arrange	Combine	Assess
Describe	Convert	Calculate	Break down	Compile	Compare
Draw	Defend	Change	Combine	Compose	Conclude
Identify	Discuss	Classify	Design	Create	Contrast
Label	Distinguish	Complete	Detect	Derive	Criticize
List	Estimate	Compute	Develop	Design	Critique
Match	Explain	Demonstrate	Diagram	Devise	Determine
Name	Extend	Discover	Differentiate	Explain	Grade
Outline	Extrapolate	Divide	Discriminate	Generate	Interpret
Point	Generalize	Examine	Illustrate	Group	Judge
Quote	Give examples	Graph	Infer	Integrate	Justify
Read	Infer	Interpolate	Outline	Modify	Measure
Recall	Paraphrase	Interpret	Point out	Order	Rank
Recite	Predict	Manipulate	Relate	Organize	Rate
Recognize	Rewrite	Modify	Select	Plan	Support
Record	Summarize	Operate	Separate	Prescribe	Test
Repeat		Prepare	Subdivide	Propose	
Reproduce		Produce	Utilize	Rearrange	
Select		Show		Reconstruct	
State		Solve		Relate	
Write		Subtract		Reorganize	
		Translate		Revise	
		Use		Rewrite	
				Summarize	
				Transform	
				Specify	

Source: ASHA Continuing Education Board

Appendix B

Classroom (Formative) Assessment Techniques

<p>Assessing prior knowledge, recall, and understanding</p> <p>background knowledge probe</p> <p>focused listening</p> <p>misconception/preconception check</p> <p>empty outlines</p> <p>memory matrix</p> <p>minute paper</p> <p>muddiest point</p>	<p>Assessing students' awareness of their attitudes and values</p> <p>classroom opinion polls</p> <p>double-entry journals</p> <p>profiles of admirable individuals</p> <p>everyday ethical dilemmas</p>
<p>Assessing skill in analysis and critical thinking</p> <p>categorized grid</p> <p>defining features matrix</p> <p>pro and con grid</p> <p>content, form, and function outlines</p> <p>analytic memos</p>	<p>Assessing students' self-awareness as learners</p> <p>focused autobiographical sketches</p> <p>interest/knowledge/skills checklists</p> <p>goal ranking and matching</p> <p>self-assessment of ways of learning</p>
<p>Assessing skill in synthesis and creative thinking</p> <p>one-sentence summary</p> <p>word journal</p> <p>approximate analogies</p> <p>concept maps</p> <p>invented dialogues</p> <p>annotated portfolios</p>	<p>Assessing course-related learning and study skills, strategies, and behaviors</p> <p>productive study-time logs</p> <p>punctuated lectures</p> <p>process analysis</p> <p>diagnostic learning logs</p>
<p>Assessing skill in problem solving</p> <p>problem recognition tasks</p> <p>what's the principle?</p> <p>documented problem solutions</p> <p>audio- and videotaped protocols</p>	<p>Assessing learner reactions to teachers and teaching</p> <p>chain notes</p> <p>e-mail feedback</p> <p>teacher-designed feedback forms</p> <p>group instructional feedback techniques</p> <p>classroom assessment quality circles</p>
<p>Assessing skill in application and performance</p> <p>directed paraphrasing</p> <p>applications cards</p> <p>student-generated test questions</p> <p>human tableau or class modeling</p> <p>paper or project prospectus</p>	<p>Assessing learner reactions to class activities, assignments, and materials</p> <p>RSQC2 (recall, summarize, question, comment, and connect)</p> <p>group work evaluations</p> <p>reading rating sheets</p> <p>assignment assessments</p> <p>exam evaluations</p>

Source: Angelo & Cross (1993)