

ACADEMIC AND CLINICAL EXCHANGES

USING CERTIFICATION AND ACCREDITATION STANDARDS TO ASSESS STUDENTS AND PROGRAMS

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New ASHA Standards for the Certificate of Clinical Competence (SCCC) will go into effect in 2005 for speech-language pathology (ASHA, 2002a) and 2007 for audiology (ASHA, 2002b). Besides being characterized by several new concepts (Lubinsky, 2001), the new standards form bases for assessment of students and programs. That is, programs and students can use the standards as targets to achieve through their assessment processes.

The SCCC As A Context For Assessment

To understand how the standards form bases for assessment, it will be helpful to clarify the philosophical and practical changes taking place. First, both sets of standards are largely predicated on outcomes, rather than processes, or inputs. According to the SCCC-SLP, "process standards specify the experiences, such as course work or practicum hours; outcome standards require demonstration of specific knowledge and skills." Each set of standards presents a list of knowledge and skills required for entry into the respective profession. Thus, program faculties can develop student learning goals based on the knowledge and skill statements. Once

accomplished, program faculties can fashion assessments to measure students' achievement of those knowledge and skills.

Having sets of knowledge and skills implies that programs may choose to have students develop those knowledge and skills in a wide variety of curricula (Lubinsky, 2001). Thus, although students must demonstrate mastery of information about basic processes and areas of disability, there are no longer any requirements for courses in particular basic processes or particular disorder areas.

New to the standards is the requirement for formative assessment. Formative assessment is, "the use of systematic evaluation in the process of curriculum construction, teaching, and learning for the purpose of improving any of these three processes" (Bloom, Madaus, & Hasting, 1981, p. 155). The emphasis in the SCCC is on student learning. To achieve that emphasis, students must undergo periodic evaluation of their knowledge and skill development, with appropriate feedback incorporating strategies to develop areas of weakness and strengthen areas of ability. As both SCCC indicate, "applicants and programs should use the ongoing assessment to help the applicant achieve requisite knowledge and skills." As bases for assessment, the SCCC thus imply that academic programs need to develop mechanisms of formative assessment and processes to document their application and results.

Scopes of practice (SOP) continue to grow in both audiology and speech-language pathology. A comparison of the current SOPs with their predecessors will easily confirm the expansion. The SCCC recognize that development of clinical skills across the entire SOPs solely by means of patient contact is probably no longer possible. Thus, for example, the SCCC-SLP indicate (implementation for Standard IV-G), "In instances where applicants have not had direct patient contact with disorder and difference categories, appropriate alternative methods of skills development must be demonstrated." In the absence of direct patient contact, academic program faculties must be creative in devising assessments to verify students' development and achievement of clinical skills. Programs may wish to use emerging technologies to

assist them. For example, at least one study has shown excellent improvement in (medical) clinical skill using virtual patients (Virtual Patients: Teachers of Tomorrow, 2003)

Both sets of standards require development of knowledge and skills in writing, mathematics, and natural and behavioral/social sciences. The SCCC-A speak of these as “prerequisite,” which can have two connotations. The more common one, of course, is the requirement that something happen before something else. In this case, the standards communicate the expectation that, ordinarily, students will enter audiology programs with transcript credit in mathematics and sciences, and at least reasonable writing skills.

However, “prerequisite” also has the connotation of being “foundational” or prerequisite intellectually, rather than temporally. Thus, during the academic program, the standards imply that students will use knowledge of science and mathematics to help them learn, integrate, and apply clinical knowledge. The foundational aspect of “prerequisite” is also evident in writing requirements. Thus, students will use their essential writing skills as a foundation for learning to write “technical reports, diagnostic and treatment reports, treatment plans, and professional correspondence” (ASHA 2002a, 2002b).

The requirements for knowledge and skills in mathematics, science, and writing form a further basis for assessment. Both sets of standards speak to transcript credit for mathematics and social and behavioral sciences. Academic programs may simply accept transcript credit in those areas as meeting their (and the SCCC) requirements. On the other hand, programs have some freedom and responsibility about the types of courses, and the grades on the transcript they will accept. For example, one audiology program may specify that the physical science be acoustics while another, looking at physical science more generally, may accept a course in geology as meeting the requirement. All programs will need to assess their students’ writing ability.

Audiology Standards

The SCCC for Audiology (SCCC-A) have some unique aspects. For one, the SCCC-A do not retain the current requirement for a Clinical Fellowship. In a rather radical departure from the current standards, the SCCC-A require that students develop all entry-level knowledge and skills as part of their academic program. This becomes possible largely because of the requirement for 75 post-baccalaureate credit hours in 2007, adding the necessity of an entry-level doctoral degree in 2012.

Standard IV-B requires that students “have knowledge of” 21 different “foundations of practice,” for example normal development of speech and language or principles of psychoacoustics. However, “knowledge” may be at a very rudimentary level, or may require rather sophisticated and complex thinking (“Bloom’s Taxonomy,” Bloom et al., 1981). The standards are silent on the level of cognitive processing. Programs must, therefore, define what they mean by “knowledge” and assess their students accordingly.

Standards IV-C, IV-D, and IV-E are statements of skills for entry-level practice. As in the knowledge standards, programs must define the level of skill to be attained and assess students accordingly. Programs may wish to consider using ASHA’s “Clinical Skills Fellowship Inventory” to assist them (ASHA 2002c).

Speech-Language Pathology Standards

The CCC standards for speech-language pathology (CCC-SLP) are different from the audiology standards in a few ways. For one, because the SCCC-SLP require only 36 graduate credit hours and 400 hours of practicum, there is a recognition that a clinical fellowship is still necessary to foster “the continued growth and integration of the knowledge, skills and tasks of clinical practice” before complete independence.

For the knowledge requirements, the CCC-SLP do define the levels of cognitive processing expected upon exit from the academic program. For example, a student should be able to analyze, synthesize, and evaluate information about various speech-language disorders. Those descriptors are the highest three levels in Bloom's Taxonomy. Conversely, the standards require only "knowledge" of contemporary professional issues. "Knowledge" embodies the simplest cognitive requirements in the taxonomy (Bloom et al., 1981). Academic programs, then, will need to tailor the ways they assess students to be consistent with the specified taxonomic stage. To assist in that process, ASHA's Office of Continuing Education has developed a list of "action verbs" for each stage.

To ensure that applicants for certification have developed knowledge and skill across the breadth of the speech-language pathology scope of practice, the standards delineate a list of disorders, which have come to be popularly known as the "Big Nine." They are (1) articulation, (2) fluency, (3) voice and resonance, (4) language, (5) hearing, (6) swallowing, (7) cognition, (8) social aspects, and (9) alternative modalities. The last is not actually a disorder area, but an application of alternative therapy strategies, such as augmentative technology or sign language.

The "Big Nine" form a critical set for evaluation, across which programs need to develop outcome statements of knowledge and skills. Programs need to then develop assessments for in a three-way matrix of (1) knowledge or skill, (2) at the requisite cognitive level, (3) across the Big Nine. Programs should remember, as noted above, that students may develop skills in ways alternative to direct patient contact.

The Knowledge And Skills Acquisition (KASA) Form

Programs will need to track progress toward, and final achievement of, knowledge and skills. To summarize the latter, The Council for Clinical Certification (CFCC) developed the Knowledge and Skills Acquisition (KASA) form. Academic programs may use this summary form or develop a form with equivalent information.

The entries on the KASA indicate that (1) a knowledge or skill has been attained, and (2) the experience(s) such as class, practicum, and so forth in which the student finally attained the knowledge or skill.

Students and academic faculty should realize that the KASA is not an evaluation instrument. Rather, evaluation of knowledge and skill needs to be completed before an entry is made in the KASA. For the convenience of students and faculty, the KASA will be electronic, so programs can expand cells or modify them in suitable ways. If programs wish to use the KASA, faculties and students will need to develop cooperative methods of input and maintenance.

The KASA will become a critical part of the application process under the new standards. Consistent with current practice, however, *pass through* students, those who complete their education in programs accredited by the Council on Academic Accreditation (CAA), will not need to submit an entire completed KASA or other program summary document. All that will be required is the one page of the KASA on which the program director verifies that the applicant has acquired all the knowledge and skills of the standards. Students who are not “pass through,” however, will need to submit an entirely completed KASA. The latter includes students who (1) did not initiate and complete their study in a CAA-accredited program and (2) apply after passthrough timeline dates.

Application Timelines

The new SCCC-SLP go into effect in 2005 and the SCCC-A in 2007. To ease the transition to the new standards, CFCC has developed a set of application timelines to show applicants under which set of standards, current or new, they may or must apply (ASHA 2002a, 2002b)

Council On Academic Accreditation (CAA)

The changes in certification standards mean that programs and the CAA will both be required to re-think how we do what we do. In order to help the programs make adjustments to the new standards, CAA is providing assistance and opportunities for exchange of information in several formats including (1) CAPCSD meetings, (2) CAA Assessment Workshops (April 26, 2003 in Scottsdale, AZ and June 7, 2003 in Washington, DC), (3) ASHA Convention sessions, (4) targeted training for site visitors Summer 2003, (5) program preparation sessions for those anticipating a site visit 2003-04, (6) updated CAA Manuals, and (7) Web resources.

The primary change in the way in which accreditation standards are affected by the new certification standards is that there is a shift from identifying the *process* of acquiring academic and clinical knowledge and skills to *combining process and outcome measures*. The process specifies the experiences, such as course work or practicum hours. Outcomes require demonstration of specific knowledge and skills. Outcome measures combine formative and summative assessments for the purpose of improving and measuring student learning.

What Is An Outcome?

Ewell (2001) described an outcome as, "Something that happens to an individual student (hopefully for the better) as a result of his or her participation in a particular course of study." It is visible only by looking at what happens to the student. Learning outcomes require programs to ask the following questions:

- What do you want students to look like at the end of the program?
- What knowledge should they have (i.e., areas of content students can recall, relate, and use; Ewell, 2001)?

- What abilities (or skills) do they have (i.e., “the learned capacity to do something” such as think critically, communicate effectively, collaborate effectively or perform tasks; Ewell, 2001)?

What Does It Mean For Programs?

Ewell (2001) indicates that an outcomes-based approach means that programs must define learning goals at the outset. It also implies that learning goals will serve as guides for instruction and as guides for judging student attainment. One of CAA’s responsibilities is monitoring programs’ success related to student achievement. CAA would look at their program-defined knowledge and skills. CAA will also examine indicators of success and their thresholds. These include such measures as Praxis results, program completion rates, and employment of graduates in the first year after graduation.

Accreditation Standards

Only five of the 31 accreditation standards are affected by the new certification standards. These accreditation standards are

- 1.2 consistency of missions and goals
- 1.6 assessment
- 1.7 documentation
- 3.1 curriculum
- 5.5 large and diverse client base

A more detailed description of these standards is provided in Appendix A.

What Will The CAA Look For?

With regard to the five accreditation standards affected by the new certification standards, many programs want to know specifically what the CAA will look for in the

process of program review. What the CAA will look for through review of applications and via site visits will be

- Connections among goals, student learning outcomes, curriculum, and assessments.
- Breadth of knowledge and skills covered in the curriculum and the depth of content consistent with student learning outcomes.
- Good planning. Programs should incorporate the six components of formative and summative assessments the CAA first provided to programs in documents beginning April of 2002.

Regarding good planning, CAA will specifically ask the following six questions:

1. *Where are the K/S addressed in the academic or clinical curriculum? (Std. 3.1)*

- Are the breadth of knowledge and skill covered?
- Are all aspects of the K/S covered?
 - (e.g., anatomical/physiological, acoustic, psychological, developmental linguistic and cultural)
- Are student learning outcomes listed on a course syllabus sufficient by themselves or should they lead to larger more overarching student learning outcomes?

2. *What are the Behaviorally Defined Indicators of achievement/learning goals for each K/S? (Stds. 1.2, 1.6, 1.7, 3.1, 5.5)*

- Variability between programs on goal depth
- Documentation that student learning outcomes (or BDIs) identified for each K/S
- Are student learning outcomes appropriate to the goals and mission of the program?
- Do you have the resources for students to meet the goals?

EXAMPLE

- A program establishes as one of its goals that it will prepare students for employment in a hospital setting.

- Would you then expect to have an outcome that students can demonstrate skill in working with clients with
 - Aphasia?
 - Motor speech disorders?
 - Balance problems?

3. What mechanism or instruments are used to assess student achievement for each K/S? (Std. 1.6)

- How are the student learning outcomes assessed?
- By whom?
- How often?
- Mechanism and instruments needed to assess students' progress in reaching the indicators of achievement for each learning goal

Assessment Mechanisms

- Effective Assessments much include
 - Triangulation of data (multiple sources)
 - Good evidence
- Principles of Evidence (Ewell, 2001)
 - Be comprehensive
 - Include multiple judgments
 - Include multiple dimensions
 - Be a direct measure of student performance

Characteristics of Good Evidence

- **Valid** - evidence is capable of representing the underlying concept with a clear rationale for why it is related to the intent of the standard
- **Reliable** - produce the same result consistently over time.
- **Verifiable** - evidence that is documentable and replicable; sufficient to enable reviewer to corroborate what was found.
- **Representative** - evidence truly represents the performance of wider populations
- **Cumulative** - use of multiple sources, methods, and approaches providing independent corroboration; triangulation from several data points.
- **Actionable** - focusing on evidence that is analyzed and interpreted so that it will reveal specific implications for the program and provide guidance for action and improvement.

EXAMPLE

- **Outcome statement:** Students will be able to describe the etiologies of localized tumors and lesions of the larynx.
- **Assessment method:** Multiple choice test in a voice course.

- **Issue:** Student misses all the test questions on etiologies of localized lesions.
- **Question #1:** Could the student still pass the test although questions about etiology were missed?
- **Question #2:** Was the stated learning outcome adequately assessed?

4. How will records be kept and feedback provides to students, faculty and supervisors and what type of remediation plans are in place? (Stds. 1.6, 1.7)

- ALL PROGRAMS MUST KEEP A KASA FOR EACH STUDENT.
- KASA is only a summary record of student.
- What tracking mechanisms are used regarding student progress?
- How is that information provided to students and faculty?
- How are opportunities provided for remediation?
- Keep records of the results of their formative assessments

5. How did you validate the indicators of student learning goals and student achievement for each K/S? (Stds. 1.2, 1.6)

- “How do you know that the learning outcomes you have selected are appropriate for entry level practitioners?”
 - What data have you collected?
 - How are the indicators related to goal setting?
 - How have you determined these outcomes?
 - How you know when to add or alter them?

6. How are the data used to evaluate and improve the program's effectiveness? (Stds. 1.2, 1.6, 1.7, 3.1, 5.5)

- Evaluations are ongoing and systematic
- Multiple evaluators – students, alumni, employers, consumers, and so forth
- Program awareness of assessment results
- Evidence of plans for change or improvements

Reporting During 2003 – 2004

Beginning July 1, 2003, CAA will assess all programs' compliance via the Annual Report, the Candidacy Progress Report, the (Re)Accreditation Application, and the site visit. Programs will be required to demonstrate that students are eligible to meet new

certification standards. Site visitors will verify that program has, *in place*, mechanisms to demonstrate compliance with the standards.

The Site Visit – Fall 2003 And Beyond

As always, CAA will seek verification of compliance with standards. The structure of the Curriculum Offerings table will show how the breadth of the standards is covered. Further verification takes place via discussions with the chair, faculty, students, staff, and external sources. Reviewers and site visitors judge compliance by triangulating data among the application, program goals, curriculum, formative assessment plans, documentation, and representative KASAs.

Until 2005/2007, site visits will be conducted with the understanding that student cohort differences exist. Thus, site visits will involve verifying compliance with CAA Standards related to certification for both cohorts of students (pre- and post new SCCC).

Highlights Of Changes – Reporting

New reporting procedures will involve new questions and requirements. The highlights of these will be

- Examples and description of student learning outcomes
- Description of assessment procedures
- Tracking mechanisms and responsibility
- Program's student completion rate
- Graduate employment rate
- Validation process for outcomes
- Two sample KASAs
- Praxis results for the ETS testing year instead of the program reporting year, so that programs can “compare apples with apples”

- Identification of sources of performance on the Praxis
- CAA will assess success based on 3- year average pass rate.

Questions And Answers

Many questions typically arise concerning CAA's expectations. Some of the common ones are

- *Where/how do the behaviorally defined indicators (BDIs) fit into the KASA?* Programs should have a BDI for each area of the SCCC; however, these BDIs (or student learning outcomes) will not be reflected on the KASA summary form that is submitted to CFCC by the applicant. Outcomes should be included in the tracking mechanisms, advising sheets, course syllabi, and so forth.
- *How do we integrate work already done by students, such as undergraduate work?* Once a program sets markers for achievement of each K/S, the program should assess an incoming student's knowledge and/or skill and make appropriate entries. Programs should apprise their students of the achievement markers.
- *Will the program's responsibility toward a student's clinical fellowship change?*
 For SLP – NO. A 36-week (FTE) clinical fellowship is still required under the auspices of a mentor who holds CCC-SLP. Typically, the SLP-CF is done post-degree, so the program has little or no responsibility.
 For Audiology – yes. The SCCC-A require applicants to complete the equivalent of 12 months of full-time clinical practice (i.e., 35 hours/week x 52 weeks = 1820 hours). This approximates the same as required under the 1993 SCCC-A (350 hours + 36-week

FTE CF). Now, the difference is that it is intended to be distributed throughout the program of study and that it is done as part of the program of study.

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Appendix A
Accreditation Standards Affected By
Changes in Certification Standards

Std. 1.2: Consistency of program's mission, goals, and objectives with entry-level standards & institutional mission

Common Programmatic Goals

- Students will be able to complete graduate degree program
- Students will be eligible to meet other appropriate professional credentialing requirements (e.g., licensure, teacher certification)
- Students will be eligible for ASHA certification

Std. 1.6: Assessment

- Ongoing and systematic
- Includes academic and clinical education
- Performance of students
- Performance of graduates
- Students have input to assessment
- Results used to plan and implement improvements
- Reflects relationship between program's mission, goals and student learning outcomes

Std. 1.7: Documentation of student progress

- Completion of the graduate degree
- Completion of state credentialing requirements
- Completion of ASHA certification requirements
- Information available to students

Std. 3.1: Curriculum (academic and clinical education)

- Consistent with the mission and goals of the program
- Sufficient to permit students to meet credentialing requirements

Std. 5.5: Large and diverse client base

- To achieve the program's mission, goals, and objectives
- To prepare students to meet credentialing requirements

- Variability between programs on goal depth
- Documentation that student learning outcomes (or BDIs) identified for each K/S
- Are student learning outcomes appropriate to the goals and mission of the program?
- Do you have the resources for students to meet the goals?