Competency Perspective on Teaching

For the Accreditation Council of Graduate Medical Education, https://www.acgme.org/

I. Introduction/Background

Competency-Based Education (CBE) is an approach to instruction and assessment that places primary emphasis on identifying and measuring specific learning outcomes, or competencies. Unlike general goals, competencies are written as real-life abilities that are required for effective professional practice.

In 1999, as one of the steps in its Outcome Project, the ACGME approved six ***General Competency domains***. The competencies represent areas of skill and knowledge that residents are expected to demonstrate before graduation. The ACGME identified these six competencies after extensive research and collaboration with a wide array of knowledgeable and interested constituents. The major purposes and components of the ACGME Outcome Project and the six General Competencies are compatible with CBE.

The purpose of this current project is to provide residency directors and faculty with suggestions and examples of teaching methods that are 1) consistent with the characteristics of competency-based education, and 2) useful for providing learning opportunities in the six competencies.

II. Common Characteristics of CBE

After reviewing four decades of literature on competency-based education, five characteristics stand out as being particularly descriptive of teaching from the perspective of competency-based education. In CBE, teaching and learning are:

1. explicit and clearly aligned with expected competencies;
2. criteria-driven, focusing on accountability in reaching benchmarks and, ultimately, competence;
3. grounded in "real-life" experiences;
4. focused on fostering the learners' ability to self-assess;
5. individualized, providing more opportunities for independent study.

For many residency programs, the change to teaching from a CBE perspective will require very little adjustment; for others, the change may seem more substantial. Teaching venues will remain the same. Residents will still attend lectures and learn at the bedside, in both the outpatient clinic and operating room; they will continue, as well, to participate in small group clinical conferences and morning report. Some programs, however, may have to identify and communicate sooner the exact learning objectives and the criteria by which they will be assessed, as well as the degree to which additional guided or independent study may be necessary.

Further descriptions of these five characteristics follow.

1. Teaching/Learning Is Explicit and Clearly Aligned With Expected Competencies

The “residency experience” is rich in opportunities to learn. Rotations, however, are often hectic, and learning opportunities may be missed because of timing, confusion about learning priorities, and limited contact with patients. Often, especially early in residency training, a rotation is completed before residents recognize where to focus their attention. The same may be true for the didactic curriculum, where general topics and the “disease of the week” are presented to residents, without the outcomes or expected competencies being clearly identified.

- In CBE, teaching and learning are purposeful. They are made so by explicitly stated learning goals, defined in advance and linked with competencies. Faculty, therefore, must consider the six general competencies when planning instructional activities, and must provide clear learning objectives that link the experience with the competency.

- Explicit learning objectives linked to competencies and identified in advance of an instructional event provide focus and direction, and make clear the full breadth of expected performance for purposes of teaching and learning. For example, a competency such as communication skills, that may have been overshadowed in the past in the quest for medical knowledge, can be highlighted and integrated into clinical and didactic teaching.

- In support of CBE, research shows that students learn better when goals, instruction, and outcomes are aligned. Studies in higher education have found that providing learners with early guidance and continuing comment leads to increased learning, higher skill levels, and higher self-esteem.

2. Teaching/Learning Is Criteria Driven and Focused On Accountability

With the advent of the ACGME competencies, it is likely that residents as well as practicing physicians will be asked to meet performance-based, competency standards when applying for licensure and re-licensure. Because the accreditation process is now more focused on setting, achieving, and maintaining standards, instruction should be designed in careful alignment with the identified outcomes or competencies**.** Explicit rather than general instruction should predominate, helping learners to place new information into a form that is useful in practice.

- Although "accountability" is gauged primarily through assessment tools, instruction that provides benchmarks and promotes feedback, self-assessment, consideration of clinical evidence, and the prudent use of practice guidelines leads to an "accountability mindset" in the program and its faculty and residents.

- In a competency-based educational system, residents are measured against clear criteria rather than against one another. This practice reduces subjectivity and competitive pressure. Thus it is easier for residents to work cooperatively and become resources for one another as they strive to meet standards.

- Determining performance criteria will be a challenge since evidence-based gold standards for resident performance in the competency areas generally are not available. Faculty, therefore, will need to use their best judgment, the consensus of their peers, and criteria-like resources that are available, such as evidence-based clinical guidelines.

3. Teaching and Learning Grounded in Real-Life Experiences

From the earliest conception of competency-based education in the 1960's, competencies have been framed as the active performance of real-life roles consistent with effective practice. Competencies are composed of more than knowledge and skills; they are knowledge and skills and attitudes synthesized into effective performance. The ACGME competency domains are all essential to the practice of medicine, with their sub-goals framed in performance (click here to review general competencies).

- Much of residency education occurs as residents are performing patient care activities in the same settings where professional practice will occur. Thus residency education exemplifies this aspect of CBE.

- Learning opportunities provided through lectures, conferences, and independent reading are not as close to "real-life" as the experiential learning that takes place in the clinical setting. Nonetheless, they are consistent with CBE when they focus on the actual problems of patients and their families, as well as on the problems inherent in the delivery of efficient, effective, compassionate health care. These learning opportunities should be based in real or simulated clinical problems, and should be guided by experienced faculty using reflections, questions, assignments, and feedback.

4. Teaching and Learning Strategies are Focused on Fostering the Learners' Ability To Self-Assess

It is essential that residents become good judges of their own competence. It is generally accepted that individuals learn to judge their own performance in a number of ways, but most often by comparing their own abilities to some external standard and then internalizing that standard. A standard may be written objectives (as in the competencies) or, more powerfully, may be the skilled performance of influential and credible role models.

- By developing learning and performance standards from the competencies, and by communicating those standards to residents, faculty provide a more objective basis for resident self-assessment.

- When residents observe the skilled practice of experienced clinicians, they may or may not understand the thought process that guided that action. When experienced clinicians reflect on their decision making, however, residents are more likely to truly understand the actions of their teachers, to model that behavior, and to eventually establish appropriate standards. Without these types of discussions, residents remain uncertain about their observations and gain less from the interactions.

- By providing feedback to residents and encouraging them to reflect on their own clinical behavior, residents will become better judges of their own abilities. Although the attending physician is the usual source for feedback, nurses, peers and patients through a 360° evaluation can provide other insights into residents' performance and so potentially affect the internal standards set.

5. Teaching And Learning Is More Individualized, Providing Opportunities For Independent Study

Throughout its history, competency-based education has been sensitive to the differing backgrounds, learning styles, aptitudes, and abilities of learners. As experienced educators, we know that interns enter residency with different knowledge and skills, and that residents enter new rotations or educational experiences with differing abilities, motivation, and knowledge bases. If all residents are expected to reach competency, it stands to reason that we will have to provide additional resources to those who start out at a disadvantage or who learn best through individual study and practice.

- Individualized study in the form, for example, of portfolio entries, computer-based learning modules, virtual conferences, and interactions with standardized patients provide residents with the options for self-paced study and learning.

- Individualized study can be offered as complementary to other group learning activities or as "stand alone" learning modules. For example, the PowerPoint slides from a lecture could be provided at the residency website for later review, or the presentation, with pre-tests and post-tests could be placed on the website in place of a lecture.

- Although computer-based learning modules provide an efficient means for transmitting certain types of information, and "virtual clinics" do a good job of simulating patient interaction, nothing can replace the advice of a mentor or the real-life interaction with a patient. Electronic media should be integrated with a strong interpersonal approach to learning.