

ESSENTIAL COMPETENCIES FOR MEDICAL STUDENTS AS TEACHERS & EDUCATORS

SDRME 2010 – EDITORS SIMPSON & BLANCO

BACKGROUND & PURPOSE

Increasing medical students are becoming involved in medical education through preparation programs as teachers, electives on medical education, and/or through pathways and areas of concentration emphasizing education. At the 2010 Society of Directors of Research in Medical Education annual meeting we sought to outline the competencies essential for students involved in medical education. We reviewed the competencies outlined in Bland et. al.,¹ pertaining to faculty as educators and the competency checklist adapted from Bland et al by Simpson et. al.,² to develop a list of competencies to guide those who work with medical students interested in education.

METHODS

SDRME members* reviewed the competencies related to education (not medical education research) to identify, edit, reframe the competencies appropriately for medical student level. Two groups were formed, each of which reviewed the competencies independently and then met to consolidate and finalize their competency list. The list was then revised and circulated to the members for final review prior to posting on the SDRME website.

RESULTS

Findings fall into three clusters: (1) essential teaching and learning values for all medical students as future physicians, independent of their interest in medical education articulated as “All Student”; (2) teaching related competencies articulated as “Level 1”; and (3) educator related competencies articulated as “Level 2.” The All Student cluster focused around values and expectations for students as learners and future teachers and sought to highlight the reciprocal nature of patient-centered care and learning centered teaching. Additional values were added for Level 1-2 students.

ESSENTIAL VALUES FOR TEACHING AND LEARNING	All Students
1. Recognize that patient-centered care and learning-centered teaching draw on mutual values and skills sets and processes and can be reciprocally applied.	✓
<ul style="list-style-type: none"> a. Skills: demonstrate effective communication, professionalism. b. Processes: identify needs, communicate needs, co-develop optimal plan, implement, assess plan success, and revise. c. Improvement: Obtain and use input from patients, peers, faculty about competency in patient care and teaching as a professional responsibility. 	✓
2. Recognize that the responsibility for learning lies within the learner – the teacher is a knowledgeable guide but not responsibility for assuring learning.	✓
3. Recognize that teaching/education is a discipline with a literature base, rigor and academic career opportunities with a progression of KSA’s and distinct areas of expertise (e.g., teaching, assessment).	✓
4. Use a learner-centered approach.	✓
5. Utilize the literature and data/evidence to drive decisions.	✓
6. Recognize own limitations as teacher and learner.	✓
7. Engage in reflective practice as a teacher and educator – using feedback from learners and peers to inform your subsequent activities.	✓

The competencies specific to Level 1 – with a focus on teaching and Level 2 with a focus on designing, implementing, assessing learner performance built off the Bland and Simpson work with deletion, editing and/or additional items as appropriate for medical students. Note – all Level 2 students are assumed to have participated in Level 1 targeted instruction/exercises with feedback.

* Work Group Conveners and Members: Grp #1: Simpson D, Cook D, Petrusa E, Wilkerson L; Grp #2: Blanco M, Frye A, Hitchcock M, Littlefield J, Nystrup J, Richards B, Steele D.

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ESSENTIAL COMPETENCIES: MEDICAL STUDENTS AS TEACHERS AND EDUCATORS		Level 1 Teaching	Level 2 Education
	EDUCATION		
1.	Develop courses, presentations, and course materials using a systematic approach.		
A.	Translate broad educational goals into more specific instructional objectives		✓
B.	Classify objectives according to types of learning required		✓
C.	Develop instructional units from objectives		✓
D.	Choose a teaching format appropriate for the instructional purpose		✓
E.	Apply general principles of adult learning		✓
F.	Plan individual sessions including teaching strategies to be used		✓
G.	Select or prepare instructional resources and materials		✓
2.	Teach individuals and small groups in clinic and at bedside.		
A.	Briefs learners to observe specific features of consultation/procedure.	✓	
B.	Asks learners to outline their diagnosis, assessment or management plans.	✓	
C.	Provides learners with practice opportunities.	✓	
D.	Observe learner's performance	✓	
F.	Involves the patient	✓	
G.	Differentiate salient characteristics of inpatient and outpatient teaching		✓
H.	Orient learners to each particular patient care setting		✓
I.	Help leaders set realistic learning expectations by assigning responsibilities appropriate to the developmental stage of each learner		✓
J.	Insert oneself into the clinical situation to model appropriate practices, attitudes, and interpersonal skills		✓
3.	Deliver instruction to small and large groups in classroom settings.		
A.	Explain course objectives and directions to learners	✓	
B.	Help learners organize their learning activities	✓	
C.	_Ask questions at various taxonomic levels to stimulate thinking	✓	
D.	Respond to learners so that their interest and involvement in the learning process is strengthened	✓	
E.	Direct learners to the literature and other resources when they lack prerequisite knowledge or have special interests	✓	
F.	Assign outside readings or tasks to reinforce learning	✓	
G.	Research a topic and gather materials for a lecture	✓	
H.	Prepare a written outline for a lecture	✓	
I.	Deliver a lecture that effectively uses audiovisuals, follow-up questions, and discussion with appropriate language (grammar) and layout (no "death by PowerPoint")	✓	
J.	Coordinate various types of small group instruction	✓	
K.	Develop tasks and/or problems to be addressed by a group	✓	
L.	Lead a discussion and delegate tasks to group members	✓	
M.	Develop simulations to be used by a group		✓
4.	Assess student performance		
A.	Identify different purposes for evaluating performance		✓

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B.	Identify various mechanisms for evaluating learner progress and choose a method appropriate for a given purpose		✓
C.	Design written tests that include objective short answer and essay type questions		✓
D.	Utilize simulations including print and computer, media, actual patients, and videotapes		✓
E.	Design and conduct oral examinations		✓
F.	Develop and use checklists/rating scales when observing live/recorded learner performance		✓
G.	Conduct and interpret simple checks on reliability and validity of evaluation methods		✓
H.	Keep anecdotal record to evaluate learner progress		✓
I.	Give learners positive & corrective feedback on progress toward achieving course/program goals	✓	
5.	Evaluate program effectiveness both formatively and summatively		
A.	Obtain and utilize feedback to improve teaching (CQI approach)	✓	
B.	Identify questions, the answers to which will inform specific decisions about the instructional program		✓
C.	Develop an evaluation plan to include a data collection instrument		✓
D.	Determine the most appropriate data source(s) and collect the data		✓
E.	Analyze the data and interpret the results		✓
F.	Report results to concerned individuals		✓
G.	Revise instruction as appropriate		✓
COMMUNICATION: WRITTEN, ORAL, E-BASED AND NON-VERBAL			
6.	Communicate effectively to different audiences.		
A.	Develop and use methods for knowing one's audience	✓	
B.	Describe both a typical member of the audience and the variety of people that comprise it	✓	
C.	Specify the elements of knowledge and experience the audience has (or does not have) related to the topic	✓	
D.	Determine why the audience may want or need one's information or viewpoints	✓	
E.	List the criteria by which the audience will judge the material communicated	✓	
EDUCATIONAL TECHNOLOGY			
7.	Demonstrate proficiency with teaching and presentation technology.		
A.	Use presentation software (e.g., Powerpoint) to prepare and display visuals, handouts, speaker notes.	✓	
B.	Demonstrate ability to use computer-based projection of visuals (e.g., from presentation software, World Wide Web).c	✓	
C.	Effectively utilize educational technology (e.g., ANGEL/BlackBoard, iPod Touch/iPad, promethium board)	✓	
D.	Produce a podcast	✓	

REFERENCES & RESOURCES

- ¹ Bland CJ, Schmitz CC, Stritter FT, Henry RC, Aluise JJ. *Successful Faculty in Academic Medicine*. New York, NY: Springer; 1990
- ² Simpson, Deborah PhD; Marcadante, Karen MD; Morzinski, Jeffrey PhD, MSW; Meurer, Linda MD, MPH; McLaughlin, Chris; Lamb, Geoffrey MD; Janik, Tammy; Currey, Laura MS. Fifteen Years of Aligning Faculty Development With Primary Care Clinician-Educator Roles and Academic Advancement at the Medical College of Wisconsin. *Acad Med* 2006;81(11):945-953.