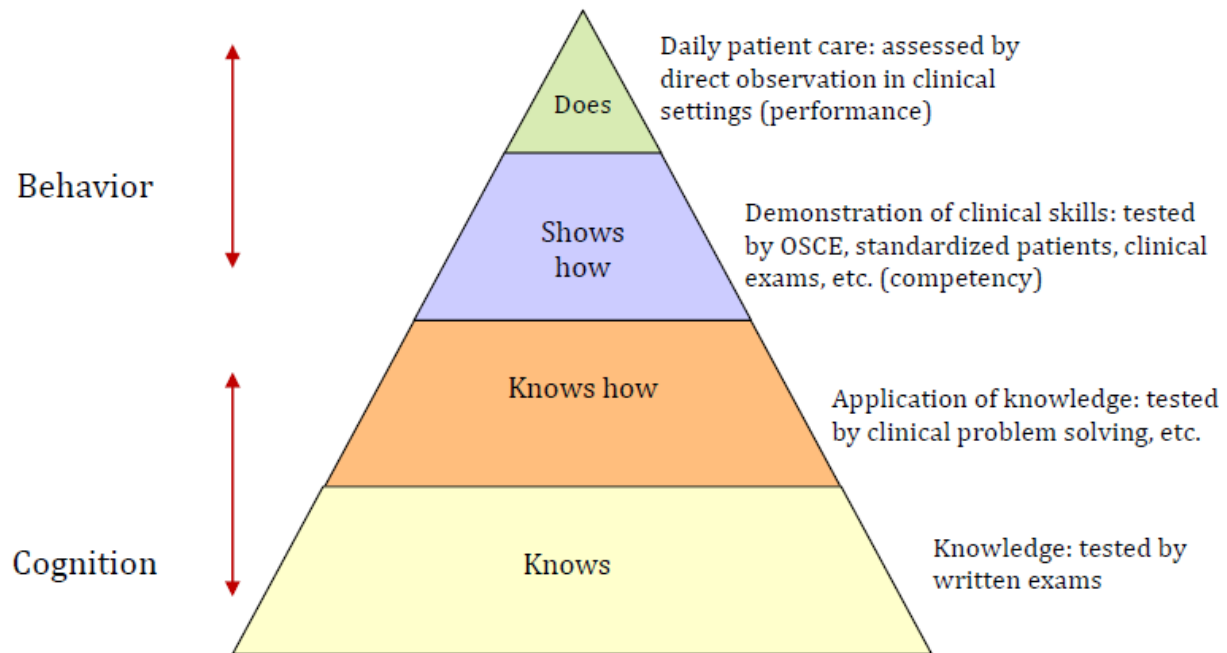


Miller's Pyramid of Assessment

Miller's Pyramid of Assessment provides a framework for assessing clinical competence in medical education and can assist clinical teachers in matching learning outcomes (clinical competencies) with expectations of what the learner should be able to do at any stage.



Adapted from: Ramani S, Leinster S, AMEE Guide no 34: Teaching in the clinical environment. *Medical Teacher*, 2008;30(4):347-364.

Descriptions and Examples

KNOWS forms the base of the pyramid and the foundation for building clinical competence.

Ex1: Learner is assessed his/her knowledge of the ethics and principles of patient confidentiality through a multiple choice exam.

Ex2: Learner knows the epidemiology, signs and symptoms, pathophysiology, and treatment of congestive heart failure.

Ex3: Learner knows the indications, contraindications, and risks associated with the placement of a chest tube.

KNOWS HOW uses knowledge in the acquisition, analysis, and interpretation of data and the development of a plan.

Ex1: Learner evaluates his/her own moral thinking in a patient confidentiality delimita.

Ex2: Learner knows how to, given a patient encounter, utilize history and physical exam and diagnostic test data to diagnose and stage congestive heart failure.

Ex3: Learner knows to, given an appropriate clinical scenario, place a chest tube.

SHOWS HOW requires the learner to demonstrate the integration of knowledge and skills into successful clinical performance.

Ex1: Learner demonstrates how he/she would respond to a standardized patient's ethical dilemma.

Ex2: Learner shows how to develop and implement a treatment plan for a patient on congestive heart failure and effectively explain it to the patient and/or family.

Ex3: Learner shows how to place a chest tube.

Does focuses on methods that provide an assessment of routine clinical performance.

Ex1: Learner assessed through a patient satisfaction survey.

Ex2: Learner demonstrates the ability to evaluate the post treatment status of a patient with congestive heart failure and to revise the plan as warranted.

Ex3: Learner does the procedure of chest tube placement and implements post-procedure care.

DOES focuses on methods that provide an assessment of routine clinical performance.

Ex1: Learner assessed through a patient satisfaction survey.

Ex2: Learner demonstrates the ability to evaluate the post treatment status of a patient with congestive heart failure and to revise the plan as warranted.

Ex3: Learner does the procedure of chest tube placement and implements post-procedure care.

Providing Constructive Feedback to Residents and Students

Feedback is based on an assessment of the learner's knowledge, attitude, and skills observed during patient encounters. Feedback should be constructive, consisting of a combination of positive and negative comments with a description of how to improve next time.

Key Points

- ✓ Feedback should be ongoing and frequent
- ✓ Give the feedback as soon as possible after a critical incident
- ✓ Use notes to help you recall the points you wish to make
- ✓ Use the "feedback sandwich"
- ✓ Describe the observed behavior
- ✓ Be as specific as possible
- ✓ End the feedback with detailed instructions for improvement
- ✓ Follow up with positive feedback and praise the learner when improvement occurs

Feedback Sandwich Examples

“I like the way you examined the heart. You were methodical, going through each step of inspection, palpation, percussion, and auscultation. However, I noticed that you used only the diaphragm of the stethoscope and not the bell. The bell is important when listening for low-pitched sounds. On subsequent patients, I want you to listen with the bell at each major area.”

“Patients seem to like you. Yet, some patients seem to be frustrated when you don’t give them enough time to answer your questions. Be patient. Wait several seconds, check to see if they have anything they would like to add and then move on.”

(Adapted from Alguire, P., et al. (2001). Teaching in your office; a guide to instructing medical students and residents. American College of Physicians. Philadelphia, Pennsylvania.)

More Feedback Examples

(Adapted from DesMoines University Faculty Development Office-Clinical Teaching Skills for Preceptors)

	STEPS	DESCRIPTION	GOOD EXAMPLE
1	Listen to the learner’s perspective	The learners start first! Learners need to be encouraged to reflect on what they did well, what needs improving, and how they will make these improvements.	“Let’s talk about that well-baby exam. What specific aspects of the exam went well? Were there parts that you think need improving?”
2	Share your perspective	Share what the learners did right and what needs improving.	“I agree with you; I also thought you asked all the important questions to assess her nutritional status.”
3	Always develop a plan for next time	While providing guidance, ask the learners to come up with strategies for improving their performance.	“I know it is difficult to listen for murmurs in a restless baby. Next time, try listening for heart murmurs at the beginning of the appointment while the baby is laying quietly with the mother.”