



How Do I Teach Procedural Skills to the Right PGY Level?

Olivia Sheehan, Ph.D.

Robbin Kirkland, Ph.D.

CORE Faculty Development



Learning Objectives

- Residency Directors will be able to:
 - Identify “best practices” in teaching procedural skills to the residents.
 - Discuss principles that guide effective teaching of procedural skills.
 - Describe steps in effective teaching of procedural skills to the residents.



Procedural Skills: An Overview

- Harrow, A Taxonomy of the Psychomotor Domain (1972) proposed a psychomotor taxonomy that can remind us of capabilities students and residents need to attain:
 - Reflex movements
 - Basic fundamental movements



Procedural Skills: An Overview

- Perceptual abilities, including visual, auditory, and tactile discrimination as well as coordinated abilities, such as eye-hand coordination
- Physical abilities, including agility
- Skilled movements
- Nondiscursive communication, including gestures and facial expressions



Steps in Teaching Procedures

- Whitman and Lawrence, Surgical Teaching (1991) provide three steps in teaching procedures:
 - Introductory Phase
 - Practice Phase
 - Perfecting Phase



Introductory Phase

- Introduce the objective of the teaching and the expected performance outcome.
- Explain the rationale for learning the skill along with the indications/contraindications.
- Familiarize the student with the equipment needed to perform the skill.
- Demonstrate the sequential steps of the procedure.



Practice Phase

- Give specific instructions for practicing the skill.
- Verbally and physically guide the initial attempts of each trainee to perform the steps of the skill.
- Provide informational feedback.
- Allow a period of independent practice time.



Perfecting Phase

- Provide for continued practice under realistic clinical conditions.
- Evaluate the acquisition of the skill under actual performance conditions.



Tips

- Tell the resident what you intend to do and what you expect of them.
- If patients are involved, introduce them and be sure that they are comfortable.
- Present an overview of the skills to be demonstrated.



Tips

- If the skill is complex, break it down into its component parts.
- Describe aloud what you are doing.
- Be sure that the resident can see and hear all aspects of the demonstration.
- Make sure that your demo. proceeds at a pace that the resident can follow.



Tips

- Alert residents to common mistakes and any safety issues.
- Provide handouts if appropriate.
- Encourage questions during and after the demo.
- Review and clarify steps that appear to confuse the learners.



Tips

- Make sure the resident feels he/she knows how to start doing the skills.
- If appropriate, invite the patient's comments on how to make the exam or procedure most comfortable for patients.
- Give the resident opportunities to practice skills under supervision ASAP.