

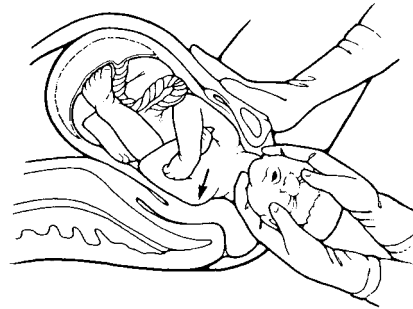
TEACHING PROCEDURES

**Bringing
Education &
Service
Together**



Learning Objective

After participating in this session, participating residents will be able to teach a learner how to perform a procedure.



Teaching Procedures

3 phases of psychomotor skills development:¹



¹Dunnington GL, DaRosa D. Instructor's Guide for Teaching Residents to Teach. Springfield, IL: Association for Surgical Education (2000).

Cognitive Phase

Learners first need to understand the “**why**” components of the procedure:

- Why learn procedure?
- Indications
- Contraindications
- Risks/complications
- Benefits
- Alternatives



Cognitive Phase

Since adult learners prefer active learning, teach through questioning:

- Has the learner done this procedure before?
- What does s/he recall about indications, risks, etc.?

Cognitive Phase

Then address the “how” components of learning the procedure:

- Demonstrate the procedure step by step.
- Ask learner to verbalize the steps.
- Ask for questions.

Developmental Phase

- Next, learners need to practice.
- Have learner demonstrate procedure for you, explaining each step.
- Provide guidance for each step, both verbally and physically.
- Evaluate learner's proficiency:
what did learner do right, wrong?

Developmental Phase

- Ask learner to self-evaluate, then give specific feedback, starting with the positive aspects of the performance.
- Does the learner have any questions, now that s/he has practiced the skills?

Automated Phase

- Finally, learners begin achieving proficiency and are ready for independent performance.
- Observe performance again, this time with minimal interruption.
- You can now teach the fine points.

Automated Phase

- Encourage self-directed learning:
 - What are the learner's future learning goals, and how does s/he want to achieve them?
 - What have you read or done that helped you learn procedures?
- Arrange for a follow-up session.