Module Objectives

After completing this module, the learner will be able to

• Describe four theories about adult learning
• List three aspects of Ignatian Pedagogy
• List three implications for teaching adults
Understanding how we learn

- There are many theories that provide insight into how adults learn
- Also important to consider the conditions and settings that promote learning
- Rich literature drawing from the social sciences, including cognitive psychology and educational psychology
- Growing body of evidence from the medical sciences, including physiology and neurosciences
Traditional Perspective on Adult Learning Theory

Traditional views emphasized the roles and responsibilities of the learner. Knowles (1989) encourages teachers to focus on:

1. The Learner’s Need to Know
2. Self-Concept of the Learner
3. Prior Experience of the Learner
4. Readiness to Learn
5. Orientation to Learning
6. Motivation to Learn

Knowles (1989)
Updated Views on Adult Learning Theory

- Old View: Unique considerations for teaching kids (pedagogy) and adults (andragogy)
- Critique: Andragogy excludes context and social factors (Durning and Artino 2011)
- New View: Not pedagogy vs. andragogy
- Should be a Continuum:

  Teacher < -------------------------------- > Learner
  Directed                      Directed
Wait, what about learning styles?

Despite their popularity, learning styles schemes still lack evidence (Pasher et al. 2009).

**Evidence**
- Individuals have study preferences

**Evidence**
- Study preferences have been found to be reliable

Limited Evidence
- Individuals have specific ability differences or aptitudes

**No Evidence**
- Meshing instruction to preferred learning style will increase learning and understanding
Learning Theories and Models

- Ignatian Pedagogy
- Experiential Learning Model
- Social Constructivism
- Self-Regulated Learning
- Retrieval Practice
Ignatian Pedagogy

Five Elements

1. Context
2. Experience
3. Reflection
4. Action
5. Evaluation

Learn more! Watch this overview of Ignatian Pedagogy by SLU faculty:  http://vimeo.com/43912068
How to Apply in Practice

- Recognize unique qualities of each learner and their culture
- Plan learning activities and opportunities that are challenging and relevant
- Emphasize interdisciplinary and interprofessional learning
- Ask learners to reflect and discern what is best for the learner, the patient, the professional and society
- Evaluate learning and assist learners in evaluating their own growth and development
Kolb’s Experiential Learning Model (1984)

Concrete experience
Observations and reflections
Formation of abstract concepts and generalizations
Testing implications of concepts in new situations

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How to Apply in Practice

• Incorporate opportunities for both concrete experiences and reflection in your teaching
• Value the prior experiences of a learner
• Connect learning to real-world situations (e.g., use cases and patient panels in non-clinical courses)
Social Constructivism

- Also known as cognitive constructivism
- Based on the idea that learners construct their own knowledge
- Previous knowledge and beliefs inform the process
- The teacher is a guide and facilitator of learning, not the sole source of knowledge
- Social Constructivism (Vygotsky 1978) builds on this idea and also highlights the role that social encounters (with teachers and learners) play in building new knowledge
How to Apply in Practice

• Respect learners’ knowledge base and experiences
• Plan learning to maximize the skills of the group
• Give learners challenging and meaningful tasks
• Offer “scaffolding” to support skill and knowledge development during these activities
• Reduce scaffolding over time as the learner gains knowledge, competency, and confidence
Self-Regulated Learning

- Self-regulated learners are able to
  - Set goals
  - Plan strategies to pursue and accomplish these goals
  - Monitor progress toward reaching the goal
  - Identify and set new goals when initial goals have been met
- Learner motivation AND external forces influence learner behavior
- Medical students have been shown to use three strategies:
  1. Choose learning opportunities
  2. Acquiesce to perceived lack of opportunities
  3. Create learning opportunities
- Self-regulation is a skill that continues to improve

(Woods, Mylopoulos, Brydges 2011)
How to Apply in Practice

• Recognize that learners are developing skills for self-regulated learning
• Most learners do not have fully-developed skills when they begin clerkships
• Understand that the same learner may engage different approaches depending upon the context for learning
• Faculty should discuss the learning environment, strengths and limitations, and resources for responding to challenges in the particular learning environment
• Assist learners in developing their own learning experiences
• Since learners do not routinely reflect, create opportunities for debriefing and reflection

(Woods, Mylopoulos, Brydges 2011)
Retrieval Practice

• Also known as “testing effect”
• All active learning does not produce the same effect
• Learners may learn more through testing (when compared to other active strategies like concept mapping) because they practice developing their own customized retrieval structure
• Recall may be enhanced because they were personally involved in reconstructing knowledge

(Karpicke and Blunt 2011)
How to Apply in Practice

• Provide learners with opportunities to practice retrieving and reconstructing knowledge
• Develop supplemental questions, quizzes, or short-answer activities
Summary

- There are many theories and models that help us understand how adults learn
- An evolving set of ideas and principles from many disciplines
- Common theme is the need to recognize differences in learners’
  - Prior experiences
  - Preferences
  - Motivation
  - Direction/regulation of learning
  - Reflection
References


Karpicke JD, Blunt JR. Retrieval practice produces more learning than elaborative studying with concept mapping. Science. 2011; 331:772-775


References

