

**Tools for Engaging Learners of All Levels:
Multilevel Teaching Techniques and Cognitive Apprenticeship**
PHM 2017 Workshop Agenda

Learning Objectives:

1. Describe multilevel teaching, its utility, and its challenges, particularly in the field of pediatric hospital medicine.
2. Practice specific multilevel teaching techniques, including: Broadening, Targeting, Novelty, Up the Ladder, Student as Teacher, and Multi-Answer.
3. Apply cognitive apprenticeship to clinical teaching through the following methods: Modeling, Coaching, Scaffolding, Articulation, Reflection, and Exploration.

Agenda and Timeline:

Time	Activity
5 minutes	Welcome and Opening Remarks <ul style="list-style-type: none"> • Introduction of workshop facilitators • Review of workshop objectives and agenda
20 minutes	Self-assessment and Large Group Discussion <ul style="list-style-type: none"> • Focused self-assessment using think pair share and interactive poll • Large group discussion of teaching barriers and challenges, particularly in pediatric hospital medicine
20 minutes	Interactive Didactic I: Multilevel Teaching <ul style="list-style-type: none"> • Review of educational literature on multilevel instruction • Description of six specific multilevel teaching techniques
30 minutes	Small Group Activity I: Skills Practice <ul style="list-style-type: none"> • Participants practice multilevel teaching techniques and take turns assuming the roles of teacher, learner, and observer • Large group reporting of lessons learned
5 minutes	Break
25 minutes	Interactive Didactic II: Cognitive Apprenticeship <ul style="list-style-type: none"> • Focused self-assessment using interactive poll • Definition of cognitive apprenticeship • Review of six methods for applying cognitive apprenticeship to clinical teaching • Discussion of which methods are most appropriate for different learner levels
30 minutes	Small Group Activity II: Case Scenarios <ul style="list-style-type: none"> • Participants work as a small group to apply cognitive apprenticeship to common clinical education scenarios • Large group reporting of lessons learned

15 minutes	Self-reflection, Development of Action Plans, and Large Group Discussion <ul style="list-style-type: none"> • Completion of one minute reflection forms • Distribution of validated clinical teaching self-assessment tool • Linkage of reflection and self-assessment results to generate personal action plans • Large group discussion of action plans
15 minutes	Closing Remarks and Questions <ul style="list-style-type: none"> • Brief outline of take-home messages • Question and answer session

1. Stalmeijer, R. E., Dolmans, D. H., Wolfhagen, I. H, Muijtjens, A. M, & Scherpbier, A. J. (2008). The development of an instrument for evaluating clinical teachers: Involving stakeholders to determine content validity. *Medical Teacher, 30(8)*, e272-27.
2. Adapted from form developed by Kadriye O. Lewis, EdD, Children’s Mercy Hospital.

Handouts:

1. Agendas
2. Case scenarios for small group discussion
3. Quick reference cards with multilevel teaching techniques and cognitive apprenticeship methods
4. One minute reflection forms
5. Self-assessment forms