Teaching Up the Ladder: Strategies for Meeting Your Trainees’ Clinical Learning Needs at Every Level

Part 2
Introductions

• [insert your name, title and qualifications here]
Objectives

• Characterize methods used by exceptional clinical teachers to effectively gauge and teach to a learner’s level.

• Discuss multi-level teaching techniques, including appropriate and safe use of questioning as a teaching tool.

• Practice concrete strategies for engaging varying levels of learners in the same clinical teaching encounter.
Roadmap

Part 1

• Introduction

• Preparation
  • Development of excellent multi-level teachers
  • Characteristics of excellent clinical teachers

• Questioning as a teaching tool
  • Bloom’s Taxonomy
  • 4-Quadrant Approach
  • Application: Small group
Part 2

• Techniques
  • Literature review
  • Multilevel teaching techniques
  • Application: Role-play activity

• Conclusion
  • Large group discussion/Q&A
TECHNIQUES:
How do we make it happen?
The literature is pretty sparse

• Teaching well to multiple learners at once is not really a thing...
Effective multilevel teaching techniques on attending rounds: A pilot survey and systematic review of the literature

Laura K. Certain, A. J. Guarino & Jeffrey L. Greenwald
Effective multilevel teaching techniques on attending rounds

- 90% of attendings try to teach to multiple levels of learners (59/66)
- Attendings divided about whether it is difficult to engage multiple levels of learners at the same time on rounds:
  - 32/66 agreed that it is challenging
  - 6/66 were neutral
  - 27/66 disagreed

There was no significant difference by years since completing training.

Techniques Used by Attendings

- Broadening
- Targeting
- Novelty
- Up the Ladder
- Student as Teacher
- Multi-Answer
- No Right Answer
- Teaching to the Top
- Extreme Challenge

Techniques Used by Attendings

• **Broadening**
  – Change the specifics of a case to make it more challenging or interesting
  – “What if the patient developed fevers overnight? How would that change management?”

• **Targeting**
  – Target medical knowledge or management questions to specific team members based on the difficulty of the question
  – John (student): “What are some major causes of atrial fibrillation?”
  – Sarah (intern): “How do you manage atrial fibrillation with RVR?”
  – June (resident): “Can you summarize the key points of the BRIDGE trial?”

• **Novelty**
  – Offer new data
  – “Let’s discuss the new c. difficile guidelines…”
Techniques Used by Attendings

• **Up the Ladder**
  – Ask the same question to the medical student, then intern, then resident, etc.
  – “OK, we have a patient with chest pain and fevers...Oliver, what do you think it is? Jill, what about you? Jose, what do you think it is?”

• **Student as Teacher**
  – Have a more senior learner train a more junior learner
  – “Carline, can you tell Joyce how to assess for lymphadenopathy?”

• **Multi-Answer**
  – Seek many answers to the same question
  – “We have a patient with chest pain. What do you think is going on? OK, Sarah thinks it’s PE because of his recent hospitalization. What does everyone else think?”

*Certain LK et al. Med Teach, 2011.*
Techniques Used by Attendings

- **No Right Answer**
  - Ask questions with no single correct answer
  - “When and how should we tell the patient her diagnosis?”

- **Teaching to the Top**
  - Teach to the most senior trainee on the team
  - “Susan, what’s the next step in management for our heart failure patient who is already on maximum dose of inotropic agents and cannot tolerate further afterload reduction?”

- **Extreme Challenge**
  - Teach to the level above everyone on the team
  - “One way to study the development of drug resistance is to do a haplotype analysis...”

*Certain LK et al. Med Teach, 2011.*
Perceived Effectiveness

Perceived Teaching Level

![Bar chart showing the perceived level of teaching for different groups with error bars indicating variability. The chart highlights the 'Just right' category with the highest percentage, and 'Over my head' with the lowest.](image)

Summary of Common Teaching Strategies Used to Teach Learners at Every Level

YouTube Video can also be accessed via the following link:
https://youtu.be/IwEh_cbfy7I
How to “ENGAGE” Multilevel Learner Groups in the Clinical Setting

- Everyone teaches
- Novel topics
- Guide
- Ascend the ladder
- Groups within groups
- Empower learners for autonomy

How to “ENGAGE” Multilevel Learner Groups in the Clinical Setting

• **Everyone teaches**
  – Set the expectation that all learners will contribute to teaching
  – Can tailor the teaching points to each learner’s individualized learning goals

• **Novel topics**
  – Collectively review recent publications, hospital protocols, clinical guidelines and new understandings of disease mechanisms or treatments

• **Guide**
  – **Explicitly** role-model harder to teach competencies such as humanism, professionalism, communication or diagnostic bias
    • Reflect out loud
    • Demonstrate vulnerability
    • Role-play difficult conversations

How to “ENGAGE” Multilevel Learner Groups in the Clinical Setting

- **Ascend the ladder**
  - Targeted questioning helps the clinical teacher target specific learning objectives for each team member

- **Groups within groups**
  - Create pairs or trios to complete a task
  - Pair medical students with residents to create coaching relationships
  - Pair learners according to complementary skills/learning goals

- **Empower learners for autonomy**
  - Promote autonomy among all team members
  - Delegate duties appropriate for each learner’s level and skill set
  - Encourage junior members to lead discussions

APPLICATION: Putting the Pieces Together
Small Group #3: Role Play Activity

To be or not to be. That is the question...

Don't mind David. He always takes these role-plays too seriously.
Small Group #3: Role Play Activity

- In groups of 4 to 5, choose one case for role play
- Determine roles
- Determine which trainee (student, intern #1 or intern #2) presented the SOAP note
- **Attending will facilitate debrief using some of the techniques discussed**
- Debrief the role play
- Choose another case and change roles
Small Group #3: Roles

**Attending (facilitator)**
- Your trainee has presented a SOAP note to the team. You’re tasked with teaching the team during rounds.

**Medical student**
- You are a new student starting on rotation today. You excelled during your pre-clinical years but don’t have much experience taking care of patients. You’re eager to learn about anything.

**Intern #1**
- You’re starting to get the hang of managing multiple patients and handling cross-cover calls during rounds. You’re ready for more responsibility.
Small Group #3: Roles

**Intern #2**
- You’ve been on service 10 days straight and you’re tired. You’re very stressed and trying to field multiple calls for your complicated patients while on service. You just want to get through rounds quickly since you have so many intern tasks to complete.

**Resident**
- You’re bored and burned out. You’re going into a different subspecialty and aren’t interested in rounding right now. You’re excited about graduating in a few months.

**Interdisciplinary Team Member**
- You’re eager to participate in the conversation and feel you can add some additional perspective since you’ve spent a lot of time with the patient.
Small Group Activity #3: Scenarios

Scenario #1
• 50 y/o w/ a h/o tobacco abuse who presents with a COPD exacerbation

Scenario #2:
• 65 y/o with newly diagnosed metastatic pancreatic cancer

Scenario #3:
• 20 y/o here w/ a GI bleed
• Good clinical teaching is not completely opportunistic
• It is especially important to do your homework when teaching a session that includes multilevel learners
• Develop questions surrounding key teaching points ahead of time
• Attempt to utilize higher-order questions when possible
References


