Teaching and Working with Learners at Different Levels

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Objectives

• Briefly describe different adult learning theories
• Define what qualities are desirable in a teacher
• Explain how to maximize learning
• Table exercise
• Developmental milestones for different level learners
• Explore ENGAGE
Adult Learning Theories

- Experience
- Self direction and motivation
- Critical reflection on challenged beliefs (Bias)
- Social- Community (guide and encourage the learner)
- Goals and expectations
- Feedback and reflection leads to action and change


What characterizes a good teacher?

- Enthusiastic and stimulating
- Knowledgeable but not afraid to say, “I don’t know”
- Accessible and approachable
- Shows interest in the learner and his/her progress
- Actively involves the learner
- Patiently provides direction and feedback
- Role model
- Good bedside manner
Student comments

• Very effective in providing feedback to make sure (I) am improving in terms of presenting and knowing (my) patients
• Took time to teach
• Encourages student presentations on rounds and teaches the whole group information pertinent to patient cases
• Positive learning atmosphere
• Makes learning fun and she is very approachable. I was comfortable in the learning environment
• Encourages us to think through a differential
• Allowed students to feel more present in discussions and take ownership
• Her inclusivity was greatly appreciated
• Great motivator
• Pointed out interesting PE findings and this was absolutely helpful
• Gave me time to propose next steps in management

Resident comments

• Spent a lot of time in afternoon teaching
• Frequently brought up EBM in order to direct patient care
• Love Feedback Friday
• Not afraid to admit when she is unsure of something so the team looks it up and learns together
• Include opportunities like determining solid differential diagnosis list and how to rule out each one
• She always wanted us to make goals which was helpful for learning and pushing to improve yourself
• Approachable
• Makes rounds more of a discussion rather than a presentation- allows for learning and development of critical thinking skills
• Easily accessible
Teaching pitfalls

- Lack of clear objectives and expectations
- Teaching pitched at the wrong level
- Focus on facts rather than problem solving
- Lack of active participation by learners
- Inadequate direct observation and feedback
- Insufficient time for reflection/discussion

Create positive learning environment

- Open ended questions
- Direct question to group versus work your way up to more advanced learners
- Get commitment from all before revealing answer
- Don’t answer ALL questions- make learners research and report back
- If incorrect answer, guide them gently to correct answer
Use RIME to assess learner

- Reporter- gathers information and reports accurately (H and P, presentations and notes)
- Interpreter- interprets data and develops and accurate assessment/ differential
- Manager- Develops management and treatment plans
- Educator- teaches patient, family, other team members and community, self directed learning

What do our learners need to learn?

5 MINUTES

Define learning goals and skills that different levels should be working on (3rd and 4th year students, PGY 1,2,3)
3rd year Pediatrics

Summary of Clerkship Objectives

- Growth and development
- Age-appropriate diff dx
- Dx and initially manage common pediatric acute and chronic illnesses
- Non-Accidental Trauma – signs, reporting obligations
- Age variations (exam, labs, management)
- Calculate drug doses
- Calculate IV fluid orders
- Examine newborns and children
- Diet history
- Communicate effectively with patients and parents
- Present and document findings
- Anticipatory guidance
- Understand the approach of pediatricians

AUGUSTA UNIVERSITY
What do our learners need to learn?

- 3rd year- good hx and phy, presentation skills, applying classroom knowledge to clinical setting
- 4th year- pattern recognition of common presentations, differentials, basic management
- PGY-1- comfortable with facts and management of common diagnoses, note writing, mentor students
- PGY-2 comfortable with facts and management of less common diagnoses, developing good patient communication skills, learning to lead, independent decision making
- PGY-3 refining leadership skills: supervising and delegating, teaching students and interns

Put in Practice

- You are rounding this morning on a 16 year old admitted with pneumonia.
- How can you make this an interesting patient for all levels?

5 MINUTES
<table>
<thead>
<tr>
<th>Attending might expect:</th>
<th>Attending might ask:</th>
<th>Attending might assign:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3rd year student</strong></td>
<td>Complete thorough history and physical; offer organized presentations</td>
<td>What are the common organisms that cause community acquired pneumonia?</td>
</tr>
<tr>
<td><strong>4th year student</strong></td>
<td>Recognize patterns of common diseases and succinct but thorough presentations</td>
<td>What physical findings should we expect?</td>
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| PGY1                   | Be comfortable with facts and management of common diagnoses; write notes well | What medication choices do we have? What are MCG resistance patterns? | Complete initial work-up of newly admitted patient with supervision; write note including differential; determine plan including specific antibiotic treatment and why. Look up antibiogram and explain to team. |
| PGY2                   | Be comfortable with facts and management of less common diagnoses; develop strong patient communication skills; demonstrate clinical judgement | How long to treat and when to reevaluate if therapy is effective? What to do if not improving? What other adjunctive therapies might be helpful? | Read to determine normal length of needed treatment and complications. Share with the team complications (effusion/empyema), how to diagnose and how treatment would differ. |
| PGY 3                  | Lead a team, teach students and interns, make decisions with increasing autonomy | Is this a common presentation? How does this differ from your last patient with pneumonia? | Literature review on uncommon pneumonia presentations and failed pneumonia treatment. Teach how presentation and exam differs at different ages. |
ENGAGE

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

“Success is the sum of small efforts, repeated day in and day out.”
- Robert Collier

Quigley P, Potisek NM, Barone MA. How to “ENGAGE” Multilevel Learner Groups in the Clinical setting. Pediatrics. 2017;140:e20172861
Step 1: Plan Ahead

- Identify level of complexity of patients
- Appropriate literature
- Identify Challenging social, economic, communication, psychosocial factors
- List work needed to be done (H and P, Note, lit review, labs)

Quigley P, Potisek NM, Barone MA. How to “ENGAGE” Multilevel Learner Groups in the Clinical setting. Pediatrics. 2017;140:e20172861

Sequencing Learning Experiences

- Content
- Expectations
- Complexity

Chen HC, et al, Sequencing learning experiences to engage different level learners in the workplace: an interview study with excellent clinical teachers. Med Teach. 2015;37(12):1090-1097
Step 2: Assess Learner needs

- Identify learner goals and interests
- Relatable teaching
- Teach to fill gaps
- Assess level
  - Reporter
  - Interpreter
  - Manager
  - Educator

Step 3: Teach

- Everyone teaches

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**Vertical Integration**

- Teaching comes from near peers
- Increase collegiality
- Share knowledge and experience
- Acknowledge the differences in learners' knowledge and experience
- More comfortable/approachable
- Reduces load on supervisors
- Supervisors learn too


Morrison T. et al, Benefits and challenges of multi-level learner rural general practices, *BMC Medical Education* 2014, 14:234

**Guide**

- Reflect out loud
  - make implicit become explicit
  - clinical reasoning
- Demonstrate vulnerability
- Professionalism
- Communication
Ascend the ladder

- Target questions to each member to build shared understanding
- Question based on anticipated knowledge base of each learner
- Start with most junior and move up in experience

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Groups within a group

- Create pairs/trios to answer question or complete a task
- Coaching (write a note, take an H and P)
- Similar learning goals or complementary skills

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Other ways to make learning fun

- Teaching notebook
- Physical diagnosis rounds
- Time out
- Scavenger hunt
- Theme of the day
- What if?
- Compare and contrast

References

- Quigley PD, Potisek NM, Barone MA. How to “ENGAGE” Multilevel Learner Groups in the Clinical Setting. *Pediatrics*. 2017;140e20172861
- Morrison T. et al, Benefits and challenges of multi-level learner rural general practices, *BMC Medical Education* 2014, 14:234
- MedEd Portal- Khidir A et al., Sharing the Light: Teaching Different Levels of Learners