
Teaching at the Bedside

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Updated: Dr. Alia Dharamsi (2017)

Updated: Dr. Adam Kaufman (2019)

This session will be recorded

We are recording this Zoom session so that it can be watched again at your convenience, and so that we can share it with your colleagues who were not able to join us today.

If you would prefer that this recording **not** be shared with your EM colleagues, please email amcknight@ghem.ca within 24 hours of the session.

We will share the presentation slides and other materials (journal articles, etc.) by email; you will have access to all materials regardless of whether the recording is shared.



Please also note:

The information in this presentation and the video recording is up to date as of the date it was recorded (September 17, 2020)

It has not been updated to include any subsequent advances in practice, and the information presented in this video does not replace hospital, health centre, or governmental guidelines.



An Approach to Effective Teaching

1. Assessing the Learner
2. Determining the Instructional Content
3. Determining the Instructional Method
4. Determining the Effectiveness of Instruction



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Who do you teach?



What is challenging about bedside teaching in the ED?

Time constraints

- Acuity of patients/need to provide clinical care while teaching
- Space constraints
- Heterogeneity of learners
 - Program, level of training, level of experience/ knowledge, interests, goals
- Variety of material
- Lack of training focused on teaching



What makes a clinical teacher effective?

- Fostering positive and supportive relationships with learners
- Communicating clearly
- Being enthusiastic about medicine and teaching
- Creating “safe” learning environments in which students are treated as equals and feel free to ask questions and engage their instructors



Assessing the Learner

- ❑ “Do you have any specific learning goals for this shift or rotation that I can help you meet?”
- ❑ Assess learner’s existing knowledge & skills
- ❑ Target learner’s specific needs
- ❑ After patient encounter, begin with brief open ended questions with more than one correct answer
 - Establishes rapport
 - Helps you assess knowledge level



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Determining the Instructional Content

- Content
 - Knowledge (differential diagnoses, diagnosis, management)
 - Clinical skills (physical exam and procedural skills)
- Communication
 - how to present a case
 - advocating for consultation
- Manager
 - Management of ED
 - Management of learners
 - Management of department challenges
- Attitude (Often most difficult)
 - Communication with patients and families
 - Follow up on patient investigations



Determining the Instructional Content

- ❑ ***Choose 1 area to focus on: (Find the gap to bridge)***
- ❑ Patient centered teaching contextualizes information, enhancing knowledge transfer
- ❑ Adult learners prefer to be taught principles and clinical concepts that can be applied soon after learning in a problem based context



Small Gaps = Achievable Short Lessons

- ❑ For each teaching moment, learning points should fit on a small piece of paper (post it)
- ❑ Encourages learners and teachers to “keep it short” – this is not the time for long lectures
- ❑ Learners have short attention spans, and the department is busy
- ❑ Very effective teaching can be done in <5 minutes!



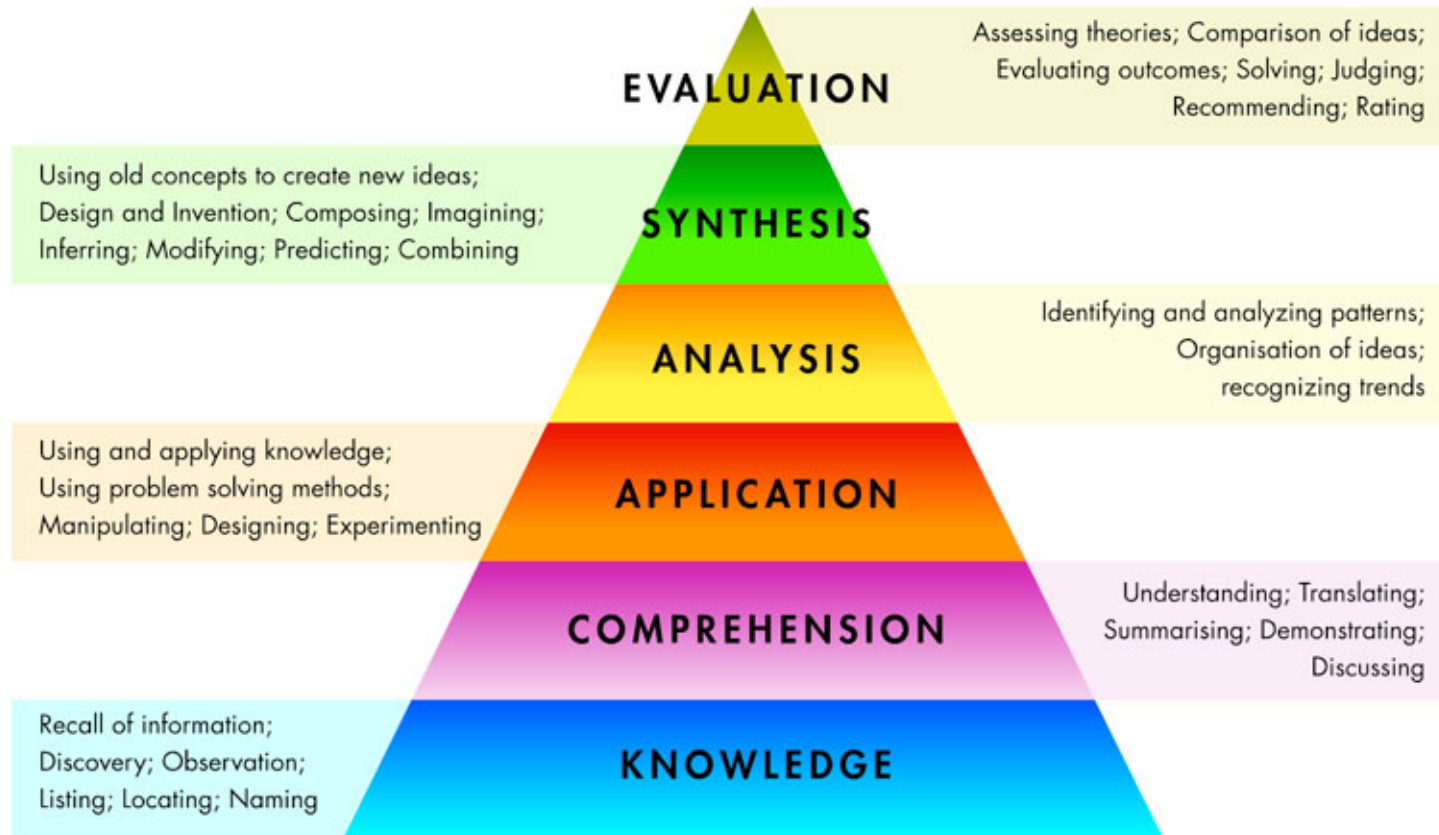
“Post-it pearls” - examples

- ❑ What are 3 causes of STE on ECG?
- ❑ Why do we synchronize before cardioversion?
- ❑ What are the top 5 causes of SOB in this patient?

What is fundamentally different about these three questions?



BLOOMS TAXONOMY



<http://www.chs.d211.org/AppliedTech/newold.htm>



“Post-it pearls” - examples

- Knowledge:** What are 3 causes of STE on ECG?
- Comprehension:** Why do we synchronize before cardioversion?
- Application:** What are the top 5 causes of SOB in this patient?



Post-it pearls

- Make a list of the 5 minute teaching moments you have
- At the end of the shift review these with the learners and set at home learning objectives
 - Before our next shift read about ...



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Determining the Instructional Method

- ❑ Didactic: Teacher centered, passive learner
 - I am going to teach you about...
- ❑ Socratic: Asking questions
 - Here is a case...
 - What are other options for management of this patient...
 - What would you have done if...
- ❑ Demonstrative
 - Let's do this together
 - I am going to show you how to X, then watch you do it



Didactic Learning

- In a recent survey of internal medicine resident physicians
 - the best predictor of favorable attending physician evaluations by residents was ***how frequently the attending physician made explicit his or her clinical reasoning***

- Best used in critical patient encounters
- Examples
 - In this case I was thinking... which is why I...
 - I noticed...and then I... which is important because...



Socratic Learning

- Lead the learner to the answer with serial questioning
- Start with simpler questions and build complexity
- Goal is to ask questions that require synthesis and application of information
- If asking open ended questions, allow a few moments for the learner to answer, but then provide the answer
 - Important not to shame learner
 - Allow learner enough time to formulate a response but avoid pimping/shaming by limiting the "waiting time" after the question is asked



Demonstrative Learning

- “see one, do one, teach one”
- 4 step method of Teaching Procedures
 1. Demonstration: Perform procedure at regular speed without narration
 2. Deconstruction: Demonstrate individual steps with narrations
 3. Comprehension: teacher performs procedure while learner describes (or learner describes steps of procedure to teacher)
 4. Performance: learner performs and narrates procedure



Demonstrative Learning: Simulation Training

- ❑ Simulation offers high-fidelity exposure to diverse high-acuity clinical scenarios
- ❑ Creates time for immediate debriefing
- ❑ Enables learners to engage their own critical reasoning by managing high-acuity “patients” without the danger of causing harm



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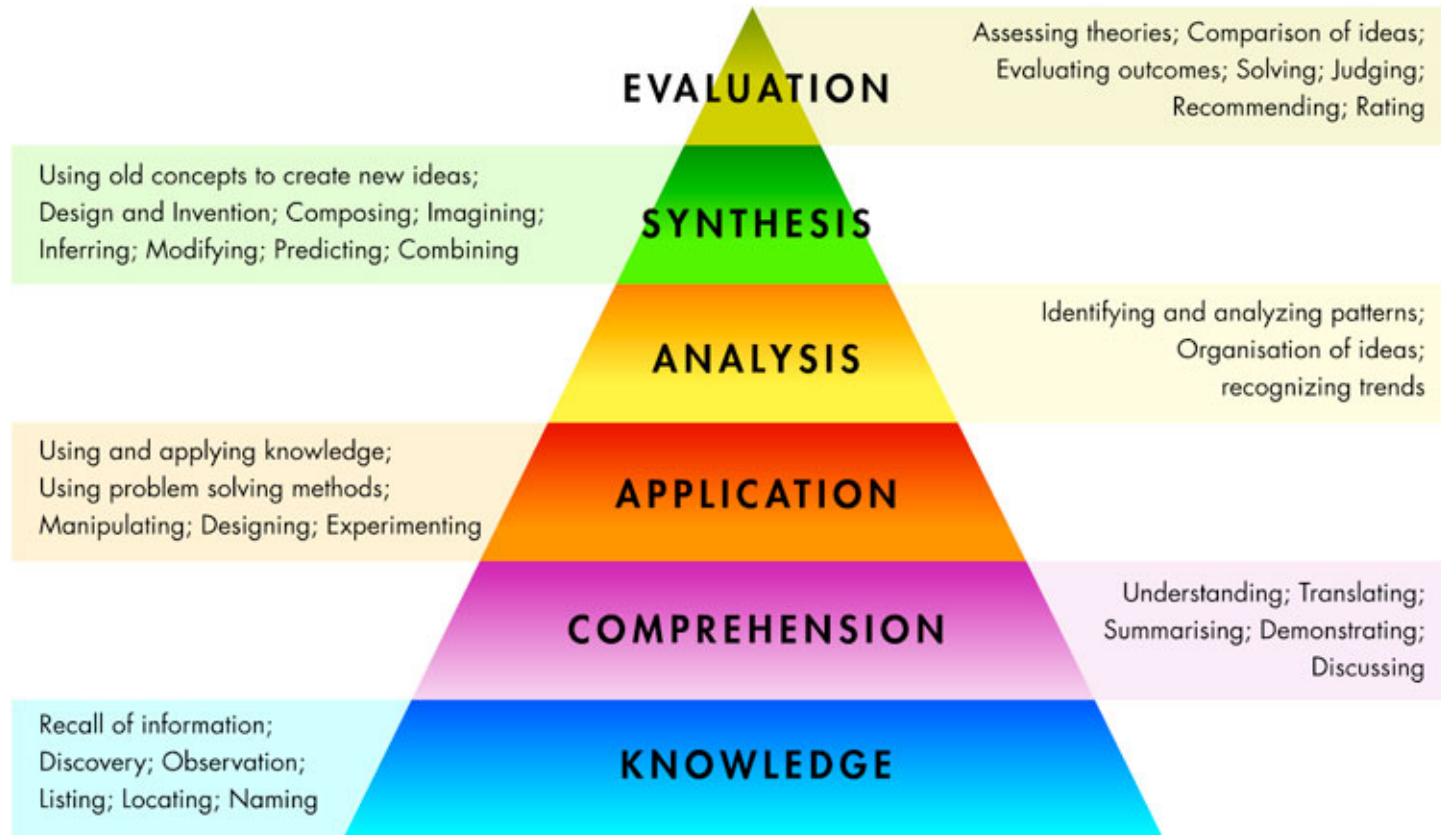


Determining the Effectiveness of Instruction

- **Remember Bloom's Taxonomy:** Higher-level learning and increasing understanding mean not just repeating facts but using knowledge in increasing complex ways to solve harder and harder problems.



BLOOMS TAXONOMY



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Determining the Effectiveness of Instruction

- **Knowledge:** Direct questioning: asking learner to recall basic facts
 - What are the ECG criteria for an STEMI?
- **Application:** ask learner to apply knowledge
 - What are some features of Mrs X's story that are concerning for acute coronary syndrome?
- **Synthesis:** Case based hypothetical
 - If Mrs. X had ST elevation in the inferior leads, how might our immediate management be different?



The Struggling Learner

- Firstly, identify the source of the problem
 - Can usually be done by direct observation
- Communicate the deficiency with positive, supporting feedback
- Create a plan to improve deficiencies: allow learner to self study, then follow up with learner (close the loop!)
 - Tonight go home and read about ... and tomorrow let's discuss this again
 - I am going to show you this again tomorrow, and then you will practice



Feedback

The “Quiet chat” approach to feedback:

1. Set time aside (eg, after the conclusion of a shift)
2. Elicit what the learner believes he or she did well
3. List what the learner did well
4. Ask what the learner believes could be improved
5. List **1 or at most 2** things that could be improved
6. Mutually determine an action plan to remedy these issues
7. Follow up on this action plan.



The Difficult Learner

- What makes a learner difficult?

The Difficult Learner

- ❑ Be enthusiastic about the patient the learner sees
- ❑ Try to focus on challenging differentials, dangerous diagnoses, especially in lower acuity patients
- ❑ Elicit from learner what interests them the most
 - Commit to offering cases or procedures tailored to learner's area of interest
- ❑ Difficult learners may have more than one deficit, target only 1 area to improve per teaching moment



An Approach to Effective Teaching

1. Assessing the Learner
2. Determining the Instructional Content
 - Keep it short!
3. Determining the Instructional Method
 - Choose a method that fits the learning objective
4. Determining the Effectiveness of Instruction
 - Was knowledge retained? How well can they now use that knowledge? (Bloom's taxonomy)



Teaching Pearls

- Identify learner's goals and potential challenges
- Choose ONE area to focus on in teaching
- Try to tailor teaching to learner's specific needs/interests
- Use open ended questions
- In critical patient encounters
 - Focus on demonstrative teaching
 - Use the time after to discuss clinical reasoning



Teaching Pearls

- Be enthusiastic about teaching**
- Keep it short!**
- Role model patient care behaviours**

