Implementing Active Learning for Knowledge in Action

- Read, write, discuss, and be engaged in solving problems: Critical thinking/clinical reasoning.
- 3 learning domains: Knowledge, skills and attitudes (KSA): Ensure learners walk away with practical knowledge/skills/tools.
- Active learning engages students in two aspects: *Doing things and thinking* about the things they are doing.

inspired by Alice Fornari
Foreword: Stages in a Lecture

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>Get learners attention</td>
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<td>2.</td>
<td>Preview what is to come (agenda)</td>
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<td>3.</td>
<td>Present material (use engagement of audience)</td>
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<td>4.</td>
<td>Summarize what was presented (key learning points)</td>
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<td>5.</td>
<td>Close strong (application to real world)</td>
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Step-by-Step: LGS Flipped Classroom Approach

1. Students received the Learning Objectives in the Pre-work
2. General Opening of the Session (Greeting & Introduction of Topic)
3. Presenter selects key concepts (e.g., through PPT, video, demonstration, ...) and applies Active Learning techniques
4. Popular Active Learning techniques
   1. Think-Pair-Share
   2. PollEverywhere
   3. Case
   4. Categorizing matrix
   5. Compare and Contrast Activity
   6. .......... 
   7. Summarize each Active Learning application
4. Close the session – provide Summary (can also review Learning Objectives)
5. Thank You! – Q & A
Goals:
e.g., At the conclusion of this session, learners will be able to apply the key concepts........

Learning Objectives:

1) E.g., Knowledge in Action: Discuss the proactive approach to Active Learning
2) E.g., Identify, explain and apply three Active Learning Techniques
3) E.g., Reflect on effective Learning Experiences

Step 1: Goals & LOs
General Opening of the Session –
(Greeting & Introduction of Topic)

[General Opening]
Key Concept 1

1. Mini didactics - Content
2. Active Learning Activity
3. Summary of Answers for all Learners
Key Concept 2

1. Mini didactics - Content
2. Active Learning Activity
3. Summary of Answers for all Learners
Key Concept ......

1. Mini didactics - Content
2. Active Learning Activity
3. Summary of Answers for all Learners
Close the session: Why We Care & – Summary (can also review Learning Objectives)

1. .......
2. .......
Thank You! – Questions & Answers

Email address of Presenter:
Appendix: Active Learning Techniques

Think-Pair-Share; PollEverywhere; Handouts; ......
1. Think-Pair-Share Activity

Key Point:
Knowledge in Action: e.g., Discuss the physiology of X in a healthy individual

1. **Think:** Give it some thought - formulate two sentences summarizing.
2. **Pair:** Turn to your neighbor and discuss your thoughts (about 5 min).
3. **Share** with the group.
4. **Presenter:** Close with a summarizing slide for the audience.
2. Audience Response Systems (ARS)
2.1. Using Poll Everywhere – Start with an Ice Breaker to Orient Students to the Activity

What skill or talent do you wish you possessed?
2.2. Using PollEverywhere – Multiple Choice Questions

Which of the following is typically NOT a ring-enhancing mass?

- **GBM**
- **Acute Multiple Sclerosis**
- **Cavernous Malformation**
- **Lymphoma**
- **Metastasis**

Respond at PollEv.com/medicalschool956

Text MEDICALSCHOOL956 to 37607 once to join, then A, B, C, D, or E

Tip: Present question first on slide for discussion with neighbor before polling.
2.3. Using Poll Everywhere – Open Answers

How could we engage the audience during Grand Rounds?

- Respond at PollEv.com/medicalschool956
- Text MEDICALSCHOOL956 to 37607 once to join, then text your message
- Answers to this poll are anonymous

Group work

Think Pair Share
2.4. Using PollEverywhere – Word Clouds are Fun

Identify Physical Therapy Options for Spasticity:

- Respond at PollEv.com/medicalschoo956
- Text MEDICALSCHOO956 to 37607 once to join, then text your message
3. Categorizing Matrix

<table>
<thead>
<tr>
<th></th>
<th>Platelet Disorder</th>
<th>Coagulation Disorder</th>
<th>Mixed Platelet &amp; Coagulation</th>
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</thead>
<tbody>
<tr>
<td>Bernard-Soulier disease</td>
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<td>DIC</td>
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<td>Hemophilia A</td>
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<td>Idiopathic thrombocytopenia purpura (ITP)</td>
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<tr>
<td>Thrombotic thrombocytopenia purpura (ITP)</td>
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<tr>
<td>Vitamin K deficiency</td>
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<tr>
<td>Von Willebrand's disease</td>
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</table>
4. Compare and Contrast

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>EPITHELIAL TISSUE</th>
<th>CONNECTIVE TISSUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CELL DISTRIBUTION</td>
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<tr>
<td>EXTRACELLULAR MATRIX</td>
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<td>BASAL LAMINA vs. MATRIX</td>
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<td>STRONG vs. WEAK CELL ADHERENCE</td>
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<td>VASCULARIZATION</td>
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<td>POLARITY</td>
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Case Vignette:
A year-old Caucasian woman, since 2012 (possibly prior) balance issues, weak and at times unsteady legs.

New complaints:
• left foot began to drag after she took a long walk
• severe pain and cramps developed in her left leg, affecting both physical capability and psychological aspects of her life
• bladder involvement

Question 1:
Question 2:
Question 3:
What works for you? Please let me know: Elisabeth.Schlegel@Hofstra.edu