EPA Thinking – Getting Started Guide

Overview

This Getting Started Guide is organized to facilitate teaching of EPA Thinking in a small group, flipped-classroom (FC) setting. The general features of group learning are covered here in this introductory section while module specific remarks are included in each mentor’s supplement for each EPA module. While the module specific remarks will facilitate the mentor in guiding the group discussion, additional module information is also included that can be:

• used individually by mentors where coordination meetings are not feasible
• or it can be used for dialogue between mentors in preparation sessions to coordinate the groups.

EPA Thinking Goal:

The overall goal of this course is for students to develop entrustable thinking applied to their own clinical behavior. What is not immediately obvious is that this same thinking is the underpinning for self-directed, self-regulated learning. Thus, EPA Thinking is skill-acquisition thinking. The guidelines and principles set out here achieve this end through guided group self-reflection.

• The guidance is provided by a set of general questions accompanied by additional EPA specific questions.
• The dialogue will consist of students sharing their own perceptions of themselves as learners (and performers) through comparison of their present practice and entrustable practice.
• It will become clear that acquisition of EPA Thinking skills indicates that competency in each EPA behavior has been achieved.
• Further, the EPA Thinking course also prepares the student to continue acquisition of additional thinking skills in residency.

General Learning Objectives:

1. Individual students will be able to identify and verbalize their own strengths and deficiencies in their thinking.
2. Individual students will be able to progressively correlate their own habits of learning with the entrustable thinking that is going to be expected of them.
3. Individual students will be able to explain the purpose of each EPA in health care practice.
4. Flipped classroom groups will be able to reach consensus on acceptable rationales.
5. Flipped classroom groups will be able to engage with each with each other to debate and clarify reasoning.
6. Flipped classroom groups will be able to extend thinking beyond the immediate descriptions and examples by integrating related topics.
Success factors:

- It is helpful for groups to be as heterogeneous as possible, e.g. undergraduate major, learning style, level of education, etc.

- Group composition should remain constant for at least the academic year for best cohesion.
  - Research on TBL shows that group cohesion takes at least two meetings.
  - Be patient because it’s really beautiful when cohesion develops.

- Much of the explanation for the development of cohesion rests on the shift from a subjective to an objective mentality.
  - Initially, the students will be in more of a subjective mode as they determine their role and their level of trust. People are more protective and less disclosing in an unknown setting, and regardless of outward appearances, most people are concerned about their value, i.e. are they OK?
  - The nature of the early discussions is designed to bring each student to the awareness that they are, indeed, OK. Equally important, they discover that the others are also OK in their own way.
  - Self-acceptance allows for discussions that involve their thinking to be viewed more objectively because they no longer need to be on guard.
  - Another type of subjectivity will develop, but it will only enhance the conversation. It’s called enthusiasm.

- Rotation of responsibility for answering assigned questions helps to assure preparation; it is also needed to engage the introverts who speak best as responders rather than initiators.
  - Mentors will quickly learn that the most difficult part of the job is letting the students speak.
  - The next most difficult part is helping the group come to consensus, or guiding them to it by asking, “so do we agree...?”

- Stay on the alert for opinions; follow with “can you explain your thinking?”
  - The brain is designed to save energy at every point in the day and opinions are one way to do this.
  - Opinions are a type of automated behavior that serves many activities, but it degrades skilled thinking.
  - Opinions, even from experts, are bad for the speaker because they lead to lazy, automated thinking and they are bad for the listener because they provide incomplete information.

- The most important opposites in thinking are the Jungian sensing and intuitive preferences. Either preference can give a misleading impression of EPA Thinking.
  - Sensing types can demonstrate a command of details and facts.
  - Intuitive types can demonstrate insight into alternatives and integration.
  - Neither type is sufficient on its own; both must be developed in EPA Thinking.
**Observation form:**

An EPA Thinking observation form is available at the website in a document file to facilitate modification for local needs and interests. Use of this form by the mentor, or a separate observer, allows for monitoring progress and can provide data to include in a publication of this method. The data address several different aspects of the flipped-classroom that contribute to higher order thinking:

1. **Degree of engagement:** Rather than measure the behavior of individuals, engagement measures the amount of interchange. Interchange is essential for sensing types and intuitive types to hear each other’s thinking. This is one of the fastest ways for students to upgrade their thinking. Engagement also increases the emotional component of the dialogue thus facilitating the consolidation of learning during sleep. Introverts develop speaking skills and extraverts develop listening skills when engagement is well developed.

2. **Depth of integration:** Students are initially inclined to provide simple answers comparable to those found on course exams. However, they will learn to answer “beyond” the question as their awareness of the integration needed improves.

3. **Microlectures:** It is inevitable that topics will arise where the mentor has some relevant experience. This will be unplanned, but it will provide extra “value added” to the dialogue. Its fullest expression is during attending rounds when the attending physician contributes relevant guidance to bring closure to a patient workup. These brief interruptions will usually only take 5 minutes or less and care must be taken to avoid distraction from the topic at hand.

4. **Comments:** Any activity involving people will have its unplanned, unpredictable events and if a mentor sees some significance, the comments box is the place to record it. They can be formative suggestions for the FC process or for identifying problems.

**First Steps:**

**Step 1.** Download the syllabus and familiarize yourself with the conduct of the flipped classroom. Review the first module to get a feel for the nature of the dialogue. 
**Step 2.** Check the SuccessTypes website homepage for the Expert Skills Program for an introduction. This information is an essential contribution to EPA Thinking. 
**Step 3.** Convene a small “drafting committee” to prepare a proposal to submit to your curriculum committee. (A sample starter proposal is available at the website as a document file for easy adaptation to your curriculum.) Curriculum committees respond best to proposals that have already been vetted by a group as opposed to those from individuals. 
**Step 4.** Consult with your curriculum committee for approval of your proposal to offer the EPA Thinking Course.

- Consider giving elective credit so it will show up on the transcript for residency application. 
- Let the students know that it will help their residency application. 
- Let the admissions office know that they can advertise that your school helps improve competitive advantage for residency.
Step 5. Don’t forget to let me know if you are participating so I can send you the remaining modules. This helps me to establish lines of communication with those who have questions. (Please note that I have substantial experience with every phase of this course.)

Step 6. Hold an initial meeting-of-the-whole with the prospective mentors to discuss the conduct of the flipped classroom.

- Remind the mentors that they do not present material but rather they guide discussion, i.e. “guide on the side.”
- If you are already conducting TBL modules in your curriculum, the GRAT and application exercise can serve as a good model for guiding flipped classroom dialogue.
- Post the modules for the students for the students to access in the appropriate area of your intranet.
- Distribute the mentor supplements one week prior to the EPA Thinking session to allow time for familiarization.
- Discuss the need for group cohesion.
  - Research on TBL shows that group cohesion takes at least two meetings.
  - Be patient because it’s really beautiful after that.
- Encourage use of the observation rubric to assess both engagement and integration.
  - The printable document file will allow for local customization.
  - Contact me to discuss how you might use this data in presenting posters.

Step 7. Develop your own system for attendance and monitor for problems.

- For excused absences, make-up work could include written answers to each question.
- Although the discussion experience will be missed by the student but the module will be addressed; it is unlikely that students will purposely miss a session considering the implications for the clerkships and residency application.
- Students will quickly decide that it is easier to go and participate than writing answers.

Step 8. Let me know of additions that would make this guide easier to use.

Generic curriculum plan

Year 1

QI Survey – prior to first group session; collect data on expectations, familiarity with EPAs, other data for comparison of attitudes and perspectives.

Month 1 – EPA Module 1

1. What to expect:
   - Groups are initially collections that have some uncertainty so there will be some testing of wills and concealing of fears.
   - It is unlikely that many students will have experienced a group learning setting. Where they do have experience it could have taken several different forms.
• Students expect that the group setting is aimed at fulfilling some requirement rather than having a useful impact on them. They are trained to perform on tests and they will, at first, assess the group on effectiveness in preparing for the next test.
• The Sensing Types will tend to expect immediate application and tasks that can be performed, e.g. discussing practice questions for science courses; the Intuitive Types will tend to expect that there is a future application. Like the Sensing Types, the intuitives will be most concerned about adapting to medical school and survival.
• Although trust is not necessarily absent, it will be difficult to detect early on. Students are quite uniform, and skilled, in hiding what they don’t want you to see.
• Students will respond to anything that will help them match well for a residency; that is your key leverage early on.

2. Goal for module
• Early correlations between anatomy concepts and the presentation of physical injury by the patient initiates an ongoing correlation of all EPAs and preclinical learning; there is little risk in incomplete coverage for early modules since there is much overlap and repetition. Mastery of the EPA is not a goal at this point.
• Adaptation to the flipped classroom rotating response system.
• Adaptation to extended answer choices; setting the stage for future modules.
• Sensitization to contrast between pre-entrustable and entrustable thinking.
• Understanding of the connection between entrustable thinking and the ELC.
• Initiate observation data collection

Month 2 – ESP Module
1. What to expect
• Group uncertainty will begin to reduce as students discover that they are not defective; this is a natural outcome of sharing preferences and learning that they are not limitations.
• The introduction of ESP after the first EPA gives a more clinical aspect to learning and engages the students in a greater sense of purpose.
• The Sensing Types will show the greatest resistance to the process and will verbalize that they will worry about EPA Thinking when they have survived the first year; the Intuitive Types will increase their engagement as their intuitive grasp sees future application.
• The dominance of subjectivity will persist until the next meeting; it wouldn’t hurt to acknowledge this. The goal of objectivity should also be acknowledged.
• Be careful that too much time could be spent on actual study methods. If the ESP methods have been addressed during orientation, then the discussion of learning methods in the group can be aimed at the thinking involved.

2. Goal for module
• Many of the goals of ESP are addressed in the pre-matriculation activities; students will increasingly explain ESP concepts to each other giving useful perspectives.
• The connection between ESP concepts and EPA Thinking will become apparent so that ESP concepts will facilitate the discussion of each future EPA module.
Month 3 – EPA Module 2
1. What to expect
   - Group uncertainty will be conspicuously replaced with first signs of cohesion; trust becomes evident and the observation scores for degree of engagement and depth of integration increase.
   - Conversation becomes more efficient and effective as it becomes more focused.
   - A stronger shift to objectivity, away from subjectivity helps with focus on the discussion questions.
2. Goal for module
   - Discussion of alternative explanations for a patient problem introduces the need for integrative knowledge as a source of these alternatives and introduces the reality that there is not always one clearly correct answer.
   - Consensus on the distinction between pre-entrustable thinking and entrustable thinking is reached; examples are more clearly compared.
   - Correlation between learning current courses and EPA Thinking are verbalized clearly.

Month 4 – EPA Module 3
1. What to expect
   - Cohesion is now apparent as the group engages spontaneously; the consistency in the questions makes preparation easier and helps with engagement.
   - The degree of integration will be more obvious as the Sensing Types begin to learn (and value) intuitive thinking.
   - There may be some discussion of how ESP is helping with exam performance; this is a positive since it will provide motivation to also share variations in learning practices – remember: learning practices should mirror EPA Thinking.
2. Goal for module
   - Diagnostic and screening tests will serve to bring students attention to the background provided in first year basic medical sciences.
   - The need for integrative thinking in the choice of diagnostic tests is discussed; cause-and-effect reasoning develops.
   - Students continue to see the correlation between EPA Thinking and integrative basic science learning.

Month 5 – EPA Module 4
1. What to expect
   - Group focus on thinking and more rapid identification of the contrast between pre-entrustable thinking and entrustable thinking emerges now.
   - Time is spent on the business of learning EPA Thinking and less on group dynamics.
   - The mentor starts to disappear; becomes visible when the group stalls or needs to come to consensus.
2. Goal for module
   - Discussion of writing orders with respect to patient’s clinical problems presents a context for learning normal and abnormal function in the body.
- Comparisons from course experience to date will help sensitize what to look for and how to think in future courses.

3. QI Survey – collect data from the sample survey questions provided or by developing your own; data can summarize past experience and/or estimate future expectations for remainder of year.

[Remaining is Work in Progress]

Month 6 – EPA Module 5
1. What to expect
2. Goal for module

Month 7 – EPA Module 6
1. What to expect
2. Goal for module

Month 8 – EPA Module 7
1. What to expect
2. Goal for module

Month 9 – EPA Module 8
1. What to expect
2. Goal for module

Month 10 – EPA Module 9
1. What to expect
2. Goal for module

QI Survey – after the last group session; collect data on expectations met or unmet, other data for comparison of attitudes and perspectives.
- Type of data/rationale
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Year 2 [WIP]

Month 11 – EPA Module 10
1. What to expect
2. Goal for module

Month 12 – EPA Module 11
1. What to expect
2. Goal for module

Month 13 – EPA Module 12
1. What to expect
2. Goal for module

Month 14 – EPA Module 13
1. What to expect
2. Goal for module

Month 15 – EPA Clerkship Prep
1. What to expect
2. Goal for module

Year 3/4 [WIP]

Activity
1. Possible addition to patient presentation to clerkship team
2. Construction of personal vignettes for residency application [see ESP Student Blog]