

Letting students struggle: *Pros and Cons of Letting Students Fail in Problem Based Learning*

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By the end of today's session you should be able to...

- Identify pros and cons of problem based learning.
- Understand what to expect if attempting a problem based learning session.



Sharing vs. Teaching

- Applying or analyzing an idea is often more challenging than simply memorizing information and processes.
- How do we help things stick?



What is problem based learning?

- Student-centered approach to learning where students work in groups to solve a complex problem.
- In this type of learning, the problem drives the learning instead of a lecture or presentation.
- Faculty guide instead of drive.



Active Learning

- Active learning is an approach to instruction where participants engage with learning.
- Can be minute papers, short activities, etc.
- Many faculty use it to check students' understanding of a topic.



Active Learning Not Always PBL

- PBL is typically student led.
- Activity learning in Information Literacy:
 - Example: A librarian demonstrates how refine results in PubMed using limits. Then the students have to complete an activity where they limit a search with a topic the librarian created.
- This is not PBL.



Health Sciences Curriculum and PBL

- More programs are utilizing PBL in curriculum design.
- PBL works well in the health sciences as many times an interprofessional team is what students



Rosalind Franklin University of Medicine and Science

- Graduate Health Sciences university halfway between Milwaukee and Chicago.
- About 2000 FTE with 26 programs including ones such as Medicine, Podiatry, Pharmacy, Physical Therapy, Nurse Anesthesia, Interprofessional Healthcare Studies, and more.



PBL Activity: Online Resources Workshop

- In 2011, the library began presenting to the medical students before clinical rotations in the clinical skills course.
 - Often called “Rising third year” students.
- Traditionally, librarians would give a lecture with students doing guided activities.



Integrating PBL

- Overall course feedback from the students indicated they wanted more interactive content.
- Past experiences from faculty also added that students were more receptive to learning when they had to struggle a bit.



Timeline of Activity

Spring 2018:
Adapt Online
Resources lecture
to PBL/TBL
Activity(Phase 1)

Summer 2018:
Pilot Session with
M4s as guides.

Spring 2019:
Redesign Session
for full group
with more TBL.
(Phase 2)

Summer 2019:
Launch newly
edited session
with no M4s.



Phase 1: Online Resources Activity

- Only groups of students who started in the family medicine, internal medicine, or pediatrics.
- Each case included some background information about the patient and needed the students to find differential diagnosis, tests, or possible interventions.
- To help guide the conversation, M4 students were used.



Pros of Phase 1

- Students had to be able to identify resources they might use.
- Librarians got to hear in real time how students use resources.
- Students had to participate.
- Students got to practice interacting with resources in a low stakes setting.



Cons of Phase 1

- Students relied on M4s for help.
- M4s gave answers they thought were right (They weren't).
- M3s were more interested in asking M4s what clinical rotations were like instead of the activity.



Phase 2: Online Resources Activity

- All M3s were included this year.
- No M4s were used instead the course director was present.
- Same cases as the previous year.



Pros of Phase 2

- Students actually were asking questions about the assignment.
- Students were asking not just the answers but the best times to use the resources.
- Faculty member connected back with the larger group for a debrief.



Cons of Phase 2

- It was a large room and a very large group.
- Shorter time period so some students gave up.
- Some got frustrated at the process of not knowing.



Overall Lessons for Sessions Which as Student-Centered

- Plan your outcomes first.
- Be comfortable with being uncomfortable.
- Students may get frustrated and that is ok.
- It's ok to say you don't know something at the time.
- Team teaching with faculty is best.



Special Considerations

- Some students may not understand this system of learning.
- The quality of PBL may vary based on the composition of the group.
- Students who struggle with communication may struggle in this method.
 - Provide handouts after the fact for independent study.



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Resources

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