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

Charlotte Beyer, MSIS, AHIP
Instruction and Reference Librarian, Boxer Library
Lecturer, Interprofessional Healthcare Studies
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.
Acknowledgments

I would like to acknowledge the following who helped with this project:

– Scott Thomson, MLIS, AHIP
  • Library Director, Boxer Library
– Chelsea Eidbo, MLIS
  • Library Assistant II, Boxer Library
– Ariel Katz, MD, MPH
  • Associate Professor and Education Director, Clinical Skills, Chicago Medical School
Resources

