In April 2017 CLT, in collaboration with the Center for Transforming Undergraduate Education at the University of Delaware, ran AUC’s first Problem-based Learning (PBL) Institute. This institute was attended by over 20 faculty members from across the schools, breaking down the disciplinary divides and bringing innovative faculty together to explore how PBL can best be implemented in AUC classrooms. Starting fall 2017, CLT will continue to offer PBL workshops, consultations and support to all faculty at AUC, with the aim of disseminating inquiry-based pedagogies and increasing student engagement.

Learn more about the 2-day institute by viewing these graphic notes capturing the event and highlighting the key aspects.

A big thank-you to Dr. Mahmoud Shaltout, CLT’s “resident cartoonist” and AUC faculty member.
**A PBL Instructor**
1. Establishes learning goals
2. Creates great problems
3. Keeps teams on track
4. Presents info as needed
5. Evaluates outcomes
6. Encourages effective learning & transfer

**Difference between PBL & Case Studies?**
- Case study
  - Student centred
  - Small group
  - Problems before concepts
- PBL
  - Instruct centred
  - Whole class
  - Cases as extension, application of concepts

**Knowledge Scheme for Categorizing Problems**

1. Descriptive
   - Fact finding
   - Following changes related to land use in Zimbabwe
   - Many internal borders changed
   - What would legal map look like?

2. Explanatory
   - Explanation
   - People in the 15th century used to believe it was possible to fall off the Earth
   - Why?

3. Procedural
   - Strategy
   - A 45 year old woman cannot lift her arm more than 45 degrees & she complains of pins & needles in arms
   - If you were therapist what would you do?

4. Personal
   - Moral dilemma
   - A mother breaks into a store to obtain expensive lifesaving drugs for her child. The next day she tells the physician what she has done.
   - What would physician do?
What are major implementation issues likely to be encountered when using PBL in undergraduate courses?

PBL Models

- How/when to introduce idea to students?
- How to organize groups?
- How to monitor groups?
- Scheduling of PBL activities
- In course?
- In each class?
- Duration & scope

PBL?

- Concept maps & informal assessment
- Exams & formal assessment
- Debates
- Presentations
- Discussions

Suggestions for large classes:
- Lecture to set problem up
- Use well-structured problem
- Classroom discussion every 15 min
- Scaffold content
- In-class group assignments
- Peer facilitators

Grading scheme:
- 20% daily assignments
- 20% group evaluations
- 15% final products
- 15% final course problem
- 10% quizzes/exams
- 45%
Q: WHAT DO I WANT MY STUDENTS TO LEARN? → What is ESSENTIAL, REALLY ESSENTIAL?

Know how to do

Value accreditation requirements?

Academic learning objectives for each unit

Which Skills important targets?

Growing drives everything!

A good SLO (Student Learning Objective) is ...
- An outcome
- Not broad
- Clear
- Skill focused
- Important
- Rigorous

ISSUES:
- Recognize student roles
- In self & peer assessment
- Evaluation formative and summative
- Integrating knowledge & skills
- Using the power of groups

BENEFITS?
- Clarifies expectations
- Efficient feedback
- Convenient evaluation
- Minimizes subjectivity
- Focuses points for ongoing treatment
- Encourages self-assessment

ASSESSMENT drives everything

Evaluation:
- Formative, ongoing
- Product oriented
- Diagnostic, assess for improvement

ASSIGNMENT:
- Formative, ongoing
- Product oriented
- Diagnostic, assess for improvement

OBJECTIVES:
- Know info
- Use info
- External knowledge

BLOOM'S TAXONOMY
- Remember
- Understand
- Apply
- Analyze
- Evaluate

RUBRIC

Know info

learning activities

Use Reasoning

Communicate knowledge

Plan Study

Drawn by Mahmoud Shaltout

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