Using case studies to bridge the theory to practice gap.

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Case study Pedagogy:

- Apply theory to real problems
- Shift focus in class from teacher to students
  - The instructor acts as a and an equal partner in the learning process.
  - thoughtful questions to guide the discussion
- Problem-based pedagogy
  - engaging in class discussions with other students as well as the instructor.
  - Discussions are open ended.
- Professional Learning Communities for in-service teacher development
- Used in a number of disciplines: education, business, sciences

Types of Case Studies

Prepared Case Studies

- prepared by professionals such as the teacher

Student Authored Case Studies

- Prepared by students
  - Individually or in groups
- Can be submitted to peers for class discussion.

Both include:

1. A rich, detailed and engaging narrative
2. A challenging problem based on
   - ✓an actual situation or
   - ✓ an amalgam of several real situations;
3. A detailed analysis of the situation
4. Applying theoretical knowledge to real-world situations;
5. Allow for multiple paths to a problem solution

Research studies – Prepared case studies

Students prefer the use of case studies over more traditional methods

Case studies make the topic matter more relevant for all ages.

Can be used to discuss social issues in a safe environment

Research studies – student authored case studies

- The students mentioned that the cases became a “tool for learning”
- Able to engage in problem solving
- Study issues from multiple perspectives
- Realization that one can learn from mistakes
- One student commented:
  - ‘*The readings from this course and case studies taught me to act collaboratively as a way to solve problems*’

Getting Started in the Classroom

- Start by having students work with a prepared case study.
  - read the case or watch a video that summarizes the case.
  - Break students into groups to solve the problem
  - Students will need to collect data (from multiple sources such as own experiments or internet)
  - Student groups present their solutions to peers for discussion
- Next, scaffold the student groups into constructing their own case studies

Examples of use in Primary /Secondary Schools

- Can be used to discuss sensitive topics such as bullying
- Can be used to motivate grassroots action i.e. environmental issues
- Can be used in science to look at big data dealing with climate change in order to develop local “solutions”
  - Have students look at actual data such as about Venezuelan Guppies (Endler, 1978) to analyze differences in guppies between ponds
- Can be used in primary math to discuss cultural bias by analyzing why issues like segregation on buses does not make sense from a mathematical and economical point of view.
- Ask students to solve common issues such as:
  - Ways to limit food waste in cafeteria?
  - Ways to improve school recycling?

Your Thoughts?

HOW WOULD YOU USE IT IN YOUR CLASSES?

TALK TO YOUR NEIGHBOR

Resources for Classrooms

- National Science for Case Study Teaching in Science:
  - http://sciencecases.lib.buffalo.edu/cs/
- Case Studies for Inclusive Educators and Leaders – for PLCs
- Interdisciplinary Journal of Problem-based learning – K12 examples of case studies
- Problems as Possibilities – for elementary classrooms