Why Use Active Learning Strategies?  
PBL, ICBL, and WebQuests

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What is PBL?
What is ICBL?

What is a WebQuest?

- Web Quest is an interactive learning exercise using a variety of internet resources.
- two types of Web Quests: short-term and long-term.
WebQuests

• **Short-term:**
  • The short-term involves knowledge acquisition and integration, making sense of a large amount of information.
  • Time Requirements: one to three class periods.

• **Long-term:**
  • A longer-term Web Quest extends and refines knowledge. Students transform information and demonstrate what they've learned by developing a survey, discussion area, or response form.
  • Time Requirements: one to four weeks to complete.

WebQuests

Different forms of Web Quests:
• -searchable databases
• -microworlds that can be navigated
• -interactive story or case study
• -forum-type documents that elicit analysis of a situation
• -on-line interview simulation.
• -Non-electronic resources that could be used are print materials from libraries and personal interviews to conduct an opinion survey.
WebQuests

Exercise Benefits:
● Students maximize their learning in an efficient way
● Are guided through steps to organize the learning process.
● Students focus on a tangible, high-tech task with a Web Quest.
● Students are motivated by the possibility of getting feedback on their product.

WebQuests

By thinking critically during a Web Quest, students are able to:
• Identify the similarities and differences among Internet resources as well as the bias, purpose, and point of view of different web sites.
• Assess the credibility of the information collected, decide what to believe about an issue, and evaluate the beliefs of others.
• Interpret the significance of the information collected and synthesize the information to generate hypotheses, form conclusions, and complete a specific task.
Changing Roles

• Teacher goes from “sage on the stage” to the “guide on the side”
• Student goes from “empty cup to be filled” to an active seeker of knowledge
• Skills developed:
  - how to ask QUESTIONS
  - where to find info
  - how to evaluate info and sources
  - teamwork

Cases

GOOD cases:
Tie learning issues to objectives (QCCs)
Offer a real PROBLEM to be solved
Provide context interesting to the students

Currently available cases:
Fewer true PBL cases available at middle school level, but many good resource sites.
PRODUCTS, ASSESSMENT, AND RUBRICS

Be creative!
- Give them a new case with some of the same concepts and have them complete a “box chart”.
- Concept Maps
- Products (brochures, posters, website design)
- Oral Presentation
- The traditional test (open or closed book)
- Peer assessment
- Self assessment

Rubrics

- Create your own rubrics based on your objectives for your case.
- If you need some help, go to this site to help generate a rubric:

http://edtech.kennesaw.edu/intech/rubrics.html
Who uses inquiry learning methods?

Many settings around the country and world use inquiry learning methods:
• Academic settings (CSP, IMSA, and more)
  - K-12
  - Undergraduate and graduate programs
• Professional development training
• Leadership development training

What disciplines utilize inquiry learning methods?
• Science,
• Mathematics
• Technology
• History
• Medicine
• Research
• Education
Comparison to Traditional Teaching

Characteristics of Traditional Instruction

• Didactic
• Teacher directed
• Only teacher input & ownership
• Discussion by only those engaged, but needed by those asleep
• Passive learning
• Memorization
• Ensures coverage of standards
• 10-20 minute drop off in retention rate (low)
• little or no “anchors” or scaffolding

Characteristics of PBL/ICBL

• Process of inquiry for both teacher & student
• Collaboration in construction of cases
• Interdisciplinary – connections & scaffolding
• High interest & relevancy
• Ownership, buy-in, curiosity
• Critical thinking skills, logic, reasoning
• Teachers act as tutors
• Students become self-directed, similar to workplace environment
• Students become tutors for each other
• Adaptations to changing curriculum become easy
• Students work on teams & increase interpersonal skills
• More student responsibility for learning
Comparison to Traditional Teaching

Strengths of PBL/ICBL

• Better recall, relevant, useful information, related to prior information
• More exciting for teacher than lecture, more motivation for student
• Self assessment could lead to better classroom behavior
• Engagement of students could increase attendance, decrease boredom
• Active process
• Requires organizing info in the hands of learners
• Opportunities to clarify, question, apply, hypothesize, and consolidate
• Interpersonal skills improve

Comparison to Traditional Teaching

Strengths of PBL/ICBL

• Organizes prior knowledge, integrates new knowledge
  ▪ Independent thinking skills improve
  ▪ Summarization, research, reading skills are targeted
  ▪ Any age level with reasonable case adjustment
  ▪ Positive student attitude about subject
  ▪ Increased confidence surrounding subject & role in group
  ▪ “numbed minds can’t learn”
• Practice, reflect, redo
• Diffuses resistance to new material
Comparison to Traditional Teaching

Weaknesses of PBL/ICBL
- Case writing is time consuming
- If bad or new case, no guarantee of outcome
- Useful to have more than one person in classroom to run cases
- Frustration tolerance may not be developed
- Classroom chemistry of teams can influence success
- Lecture is easier prep, less time
- Some administrations may not support non-traditional methods
- Time is varied by class & by case
- Less guarantee that students will get correct information