WILL LAB TAKE VERY LONG TONIGHT?

-How to engage the students

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Problem

- Human Physiology, Biology 230, conducts weekly laboratories

- Within this lab time there is both a thorough (& lengthy) introduction to the theory behind the lab and a portion of “hands on” learning

- the challenge - to keep students engaged
  - Have had numerous students complain that the introductions are quite lengthy
Solution

- Other courses engage their science students by using group based learning-
- So... Design of a new Lab
- Choose one lab to redesign
- Observe a few POGL designed chemistry sessions to see how they employ the techniques
- Put together a packet for the lab
- Assessment consisting of routine written lab exam
Special Senses Lab Packet

- Combined lab manual chapter with my usual presentation
- also developed a series of questions to be answered by the group

- Result- the “Special Senses” Packet
Preparation

- Prior to that lab, students were informed of procedure and expectations for the day
  - Work in small groups to successfully execute all the experiments/demonstrations
  - Work in these same groups to answer the questions. Packet due prior to the following lab

I would be available both during lab time and upon request in my office to offer assistance
Laboratory Day - February 17, 2009

- Handed out the packet
- Circulated throughout the lab
- 2 lab sections – total of 42 students
Assessment

- 17 multiple choice questions
- Compared results of new method (spro9) to previous method (f08) for each of the questions
- Sp09 versus F08:
  - Higher % of success answering -6 questions
  - Same % of success- 5 questions
  - Lower % of success – 6 questions

Mean score:
Sp09 82%   F08 77%
Students’ Perception

- Surveyed Students to determine their perception of this lab:

- Majority of students felt that they had performed somewhat or significantly better on this material than if presented traditionally (78%)

- Majority of students would choose either group based or a mix of lab formats (lecture and group-based) over all traditional lecture format (88%)
Now What?

- Continue new format with Special Senses Lab

- Add one or two labs to this new format