



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 POGIL 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
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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
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Assessment

- 17 multiple choice questions
- Compared results of new method (spog) to previous method (fo8) for each of the questions
- Spog versus Fo8:
 - Higher % of success answering -6 questions
 - Same % of success- 5 questions
 - Lower % of success – 6 questions

Mean score:

Spog 82% Fo8 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
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