Conversion of Chemistry 111 to a Team Based Learning Class

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Characteristics of Chemistry

111 Students

- mostly taken by allied health students
- 96 student
- predominately female
Teams

- Twelve teams of eight
- Teams were permanent
- Teams selected during class based on who had taken Chemistry 106 and a Learning Styles Survey completed during the first class.
Grading

- Within a set of guidelines, teams negotiate to determine what weights the class will use for graded assignments.

- Grades are based on things students do individually, assignments they do as team, and peer review.
Assignments

- Assign text reading to be done for next class.
- Start next class with an individual Readiness Assurance Test (RAT) based on reading.
- Follow immediately with same questions answered by the Team.
Assignments cont’

- Take up answers is class as soon as all teams are finished.
- Immediately know individual and team grade.
- Appeal if think team answer was correct.
Assignments cont’

- Weekly individual online quizzes.
Team Work

- Teams given sets of questions.
- Some questions required regurgitation of text material.
- Most questions required using text material to synthesize an answer.
- Read all team answers and offered comments before next class.
- When chapter finished team work was graded.
Instructor

- Circulates and only interferes if it seems the team does not understand a concept or if students ask questions.

- No answer to question. Ask questions to lead team to answer.
Observations

- I had more fun.
- Covered all material and more.
- Several students told me this was the first time they had ever read the required text.
- Students came to class. 99% attendance every day if not better.
Observations

- Post test class average Fall semester 2005 group work based class about half lecture = 64%
- Post test class average Team Based Learning (maybe 55 min total of lecture) = 77%
- Test is online and students cannot print a copy so I doubt that there are copies of the questions out there. The same questions were used both semesters.
Comments

- Every semester must have new sets of questions for teams. This is hard.
- The first half of this class is organic chemistry and the second half is biochemistry. Team based learning seemed to work better for the organic portion of the class.
- I do not know why but am thinking of changes to make next semester that may help.
Try it! I am sure you will like it.