

Teaching Tips/Notes



Peer Pressure to Encourage Attendance in a Non-Majors Science Class

Many universities offer science courses taken by non-majors, satisfying a science core requirement. This kind of course provides a broad introduction to a discipline and, for many students, such a course may be the only science course taken. As a result, the role of these courses is to introduce the students to science and the scientific process, through a course both broad in scope and shallow in depth.

Because core courses can be broad in scope and shallow in depth, finding textbooks can be difficult. Some instructors rely only on class lectures, often made available electronically after the lecture. Without a textbook, class lectures assume a greater role, as does the importance of class attendance. Students miss class for many reasons (Van Blerkom 1992) and attendance may be correlated with course grades. A number of class structures, in-class activities, teaching strategies and institutional policies are used to enhance attendance (Sleigh and Ritzer 2001, Schreyer Institute for Teaching Excellence 2007), including penalizing non-attendance.

In Spring 2015, I taught a 1000-level Entomology science core course, entitled "Insects, Science and Society," to 122 undergraduates. The students were distributed among class levels (freshman to senior) from more than 30 different non-science majors. I used an entomology textbook for background material in the first few weeks, but the last ten weeks of lectures were on topics not often found in textbooks, e.g., – "Insects as Weapons," "Insects in Music and Insects as Musicians," "Insects and Disease," and "Invasive Insects and Supply Chain Management," among others. The lack of a textbook to supplement lectures made it important that students attend lectures.

Although attendance was strongly encouraged, I did not require it. I used "clickers" (Turning Technologies, Youngstown, OH) for students to answer non-credit questions given during the lectures. Questions were given to help break up the monotony of a 75-minute class and to gauge whether key points were understood. Use of clickers also told me student attendance, without actually "taking attendance."

All students want extra credit; mine were no different. Some instructors use extra credit to encourage attendance by calling a student's name and asking a question, giving that student an extra-credit point for a correct answer. I tried something similar, to encourage attendance, albeit with a twist – I used peer pressure. At the end of every class period, I called a randomly selected name. Rather than giving credit to one student, I rewarded everyone in attendance that day. If I called a name and that student was present, everyone present received one point (I knew who was there from their use of clickers). I then asked that student a multiple-choice question from the day's lecture. If she answered correctly, everyone in attendance received another point. Asking a question 25 times over a 15-week semester (two lectures per week) meant there were potentially 50 points, or 10% of the course's possible 500 points.

Assessment

Did it work? First, attendance average 84%, which is enviable for an entry-level, non-majors class. Second, of the 25 students whose names I called, only once was the student absent – on a day when inclement weather had closed the university for half a day and I had already decided to give credit to everyone who braved the weather. Third, for the 24 questions I asked, the correct answer was given 20 times. Of the four questions missed, three occurred in the first two weeks of the course, and only one during the remainder of the semester. Apparently, the students realized I would continue the exercise, so they paid attention.

Although not tested, my observations of student behavior indicated the effort worked. I had several students tell me that a friend planned to skip a class, but the students each basically said, "You better not! If he calls your name and you're not there, you cost me points!" – peer pressure. Second, during the first few weeks when a student whose name was called raised her hand, I would tell the class, "Jane Doe just earned you a point. You really ought to thank her," at which time they would collectively say, "Thank you, Jane." After about three weeks, when Jane Doe raised her hand, the class as a group, unprompted, said, "Thank you, Jane." And third, when Jane Doe answered the multiple-choice question, I would ask her to tell the class which answer she chose. I didn't need to tell the class if she was right – if they thought she was right, they applauded her answer. The one time later in the semester when she answered wrong, there was a class-wide groan. So, as a group, they were in attendance and they were paying attention.

Summary

Using extra-credit questions that rewarded all attendees appeared to enhance attendance in the entry-level, non-majors entomology class. Even more than encouraging attendance and ensuring that students were getting key information, extra-credit questions produced a sense of camaraderie in the class, not easily done in a large non-majors class. The questions and accompanying hype took on somewhat of a game-show feeling and students left class still talking about the questions. Did the students learn or retain the information? Maybe. But they were definitely in attendance and that had to enhance their performance on exams. Did I give away too many points for attendance? Maybe. But doing so also allowed me to ask test questions that were a little tougher.

Rather than requiring attendance (and penalizing non-attendance) or rewarding only one student per class period, rewarding all attendees and adding "peer pressure" to the process seemed to encourage attendance. Students benefited not only by attending class, but also by their friends and fellow students attending class. Positive reinforcement and peer pressure. As the entomological saying goes, "You can catch more flies with honey than you can with vinegar."

References

- Schreyer Institute for Teaching Excellence. 2007. Large Class FAQ: Attendance. (www.schreyerinstitute.psu.edu/pdf/Large_Class_Attendance.pdf). Accessed July 29, 2015.
- Sleigh, M.J. and D.R. Ritzer. 2001. Encouraging student attendance. APS Observer (American Psychological Society) Vol. 14 (<http://www.psychologicalscience.org/observer/1101/tips.html>). Accessed July 29, 2015.
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