Engaging Your Students In Scientific Research Projects & Writing While Identifying Wonderful Undergraduate Researchers

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Our Goals:
1) To make students aware of sexual behaviors and actions occurring everywhere in society
2) To teach by experiential education “how to” conduct research & make them realize how hard, time consuming, yet totally rewarding and fun it is
3) Have them work on their oral communication by presenting their work in a long presentation 20+ minutes to the class
4) Have them improve on their scientific writing by writing a formal research paper with all the sections that publishable manuscripts include
5) Identify possible students that would succeed in conducting undergraduate research (class is open to all years)

Objective: To allow students to be more aware of “sex” events that are occurring in society everyday and to allow them to make predictions on what to expect based on the knowledge gained in the course. This project will also allow them to get a small experience into the field of research.

Due Dates: There are 4 due dates listed in the syllabus throughout the entire semester (picking a project, rough draft of introduction/methods, rough draft of results, presentation date).

Grading: 20% of your overall grade

This information is included in the syllabus. They have it from the first day of class.

Project Description:

- You will be selecting an environment to study human sexual behavior and make observations on humans without directly interacting and talking with them.
- Since you are not directly interacting with them or actually doing an experiment, no IRB approval should be needed. You will be working by yourself.
- You will select an environment that you will observe on a minimum of 3 different occasions.
- You will document sexually related behaviors occurring.
- Behaviors possibly to document are: number of males, number of females, number of male groups, number of females groups, average numbers in groups, females wearing revealing clothes, males wearing tight clothes, males displaying resources, females displaying primary or secondary sexual characteristics, specific sexual behaviors occurring like kissing, touching, licking lips, laughing, etc., females exhibiting parental care, males exhibiting parental care, etc.
- You must do a literature search to see if anything has been studied and reported in the literature regarding your specific environment or behavior. You must write a scientific introduction that gives theory and a literature review. You must list the objective of your research, your hypotheses. It should be a minimum of 3 pages.
- You must complete a methods section with many details on your observations and how you attempted indirectly to control for variables.
- You must write a results section explaining what you observed with graphs and photos.
- You must write a discussion section going over how what you observed correlates or not with the literature and what your results mean in term of sexual biology. Make sure to cover if your objective was obtained and the outcome of your hypotheses.
- You have a paper due; as well as an in class presentation on your research. Your presentation should be 20-25 minutes.

More details and a rubric will be handled out in class at a further time.
How We Help the Students:

1) Set deadlines known on the first day of class and in the syllabus
2) Deadlines do not change
3) Spread deadlines throughout the semester taking into account when tests are scheduled
4) Offer to revise work as many times as a student wants; not just at the deadline dates
5) Do an example presentation for the class and have that presentation available on Blackboard to act as a template
6) Make the grading rubric available after topic is selected
7) Offer to hear student presentation before they give to the class
8) Schedule meetings with students throughout semester to review work/presentation/help with literature/help focus/help if need IRB approval
1. Rubric is posted within the first 2 weeks of class
2. Grading is done by both faculty members (could also be done by students in the class)—constructive feedback and may drive students more to do well
3. Average of faculty (or students grading)—or faculty get together and discuss (could discuss at end of each presentation positives and areas that could have been improved)
4. Students need to learn how to handle feedback
Topics of Research Projects:

• How tipping behavior in men varies depending on waitress clothes (same girl, different outfits, same weekday nights and times)
• How mate choice is related to similarity in hair color
• Behaviors associated with a sadomasochistic conference (needed IRB approval)
• Gawking behavior of women and men in a fitness center associated with women clothing (same woman, different outfits)
Logistics:

• 12 people ended in class
• Average was 84% on presentation (generous grading)
• 2 people presented per day (took 6 days; 3 weeks to do presentations)
• Tried to steer student away from projects that needed IRB approval

For Larger Classes:

• Pair students up for research project
• Cut presentations to 15 minutes (3 per class; 4 maximum)
Benefits to Faculty:

• More interactions outside of classroom with students; more one on one time (can be also a negative!)
• More classroom discussions and student interactions instead of just lecturing
• Experiential education (can anyone say SACS)
• Students learn “better” and more “OMG” realization moments
• Students help make tests; pressure is on students to write good test questions
• Find quality, interested, excitable, passionate student researchers
  • Projects can expand into honors tutorial, independent research projects, presentations at conferences, fellowships, manuscripts
Problems Encountered:

1. Keeping students on schedule
2. Students not submitting work to be reviewed until 1 week to due
3. Students (all levels) did not know how to do a literature review or what primary literature really “meant’
4. Students did not know how to write scientifically

Students that got much help did really well.