

Assessment When Others are Teaching the Same Course
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Abstract: Often one is faced with a variety of instructors teaching the same course. Usually, Statistics is not the major field of interest of some of the instructors. How can good assessment occur in this situation? Should there be a single assessment tool? Should each instructor write his or her own assessment tool? Or should certain topics be assessed jointly with other topics assessed individually? Pros and cons of each of these will be discussed as well as some personal experiences.

Although there are a variety of assessment methods, the method that I will discuss here centers on exams. Also, the following discussion is for the Introductory Statistics class taught to a broad audience, ie., not Mathematics majors. I don't have all of the answers to the questions in the abstract, but I do have a variety of experience with teaching with others. As a graduate student, I experienced writing my own exams as well as giving exams that had a few questions that all the GTA's agreed upon with my own additional questions. As a professor, I have been the sole instructor of multiple sections, the official coordinator of several instructors, and simply one of several instructors. I found it easier to deal with situations when I was an *official* coordinator because I had authority. I made clear goals and objectives for each chapter/section, so it was easier to create exams since we were all emphasizing the same material. We also shared the same activities.

Many difficulties arise when teaching the same course with multiple instructors especially if one of the instructors is a Statistician who practices Statistics Education Reform and the other instructors don't. It is important to try to educate the other instructors without antagonizing them. Depending upon your personality and theirs, this may be difficult, but it is important to try. You may have to be content with small successes. Many Mathematicians remember taking a Mathematical Statistics course which involved lots of calculations, theory, and probability but little concepts and application. They may want to teach the same course in the Introductory Statistics course. Try not to let them. You may have more success if you help them to understand the course as a critical thinking course not a Mathematics course. It is also important to help them see that every problem needs a context. Numbers in Statistics need a real-life situation.

The Advance Placement Exam in Statistics is a useful tool to show to others who are teaching the course. I bring it out as a standard that we should be striving to reach. If high school students are getting college credit by taking this exam, then our college students taking the course should be able to reach that standard. The questions on the AP Exam stress thinking not calculations. By using the AP Exam, it isn't *you* who has *strange* ideas about teaching Statistics instead it is a national organization. This may help you convince others that you are not alone in Statistics Education Reform.

However, one must remember that it is difficult teaching someone else's course. Each instructor must maintain his/her own style. Yet, they can maintain that style while still meeting the goals and objectives of the course. This is why it is important to meet before the semester to clearly discuss what the important points in each chapter/section are. This is also the time to share teaching ideas, activities, etc. If past exams are available, pass them around. This gives each instructor an opportunity to see potential exam questions and may encourage them to start thinking about potential new questions. You may find it useful to meet several times during the semester.

The first meeting is a good time to discuss exams. Will you be giving joint exams or individual exams or a mixture? There are disadvantages and advantages to all three methods. A joint exam is good way to assess that the goal/objectives of the course is being taught in all of the sections. This may be more important when the course is a pre-requisite for another course. It is important that each instructor agrees on the point distribution of the exam. Some general discussion on how much to take off for various mistakes is a good idea. This discussion may come about as one is actually grading the exam. If a "curve" will be given on the exam, it is prudent to give the same curve for all sections. Students will talk, and hard feelings (both student and instructor) can be avoided if a similar curve is given.

There are a variety of ways that a joint exam can be created. The form of the exam must be agreed upon – multiple choice, multiple choice with short answer, short answer, etc. After the form is decided upon, the group can either have one person write the exam, or have each person supply a variety of problems, or assign each person a portion of the exam to write. Always remember the goals/objectives that you wish to assess and verify that there are questions assessing them. A joint exam does take more time to finalize. Often it is easier to have one person write the exam (except of course for the person writing the exam). This way the exam is "in one voice/style". When finished, each instructor proofreads, makes suggestions, etc. However, some groups may feel more comfortable with various questions from different instructors. It is important to remember to be flexible and check the egos at the door. This is a give and take process. One professor may object to a question even though you may think that it is perfect or vice versa. Compromise is vital, but don't compromise the assessment in the process.

Some groups may feel that having a few joint questions with the other questions supplied by the individual instructor meets their needs better. Again, it is important that the grading rubric for the joint questions be agreed upon as well as the weight of the joint questions on the overall exam. The joint questions are a good way to assess the main goal/objectives while the individual questions allow for the instructor to assess specific items that he/she emphasized. This type of exam is slightly less time consuming to create than the joint exam, and reduces the chances that a section taking the exam first will "give" the questions to sections taking the exam later which may happen with the joint exam.

Individual exams may be best for those groups of instructor who simply can't agree. This may mean that goals/objective of the course may not have been agreed upon originally (although this may not necessarily be the case). At a minimum, the course description in the catalog should be used as a guideline for each section. This type of exam may be the easiest personality wise on

the instructors, but it may put some students at a disadvantage if the course is a pre-requisite and if each section is taught different material.

When a group of instructors are teaching Introductory Statistics, it is best if the instructors can agree upon goal/objectives for each section/chapter with each instructor teaching to his/her style. Lastly, a joint exam is the best way to assess the students because this seems to be the best way to ensure that the same material is being covered and assessed.