

Makeup Exam 1
Extra Credit
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To Quant 1 students:

Hello! Thank you for taking a break from your studies to read this. I know some of you are rejoicing in your near-completion of Quant 1, but I hope you will consider this only the beginning of your quest for further statistical knowledge. I know, I know, I know...a lot of educators despise math and only take what's required (well, except for the math teachers). Those of you who aren't required to go onto Quant 2 think you are about done. Let me see if I can put this to you another way...

Even if you plan to remain in the classroom forever and have no desire to live the nerdy life of a researcher (Don't hate!), you really need to know your statistics. For those of you who are math-haters, you really don't have to work out problems or apply formulas (though these are good to know). You really just need to understand how to apply and interpret the statistical methods. By the way, if you haven't had Dr. Oshima yet, I highly recommend you signing up for her class. She has step-by-step videos which walk you through the SPSS process (and she shows you some other statistical programs as well...but I recommend SPSS...anyway, I digress). Once you get familiar with entering your data and running the analyses, you will only need to interpret the results (which are displayed neatly in a handy-dandy table). If you doubt yourself at all, have no worries. You can just submit your assignments well before the deadline and receive feedback. This will give you the chance to make any corrections and tweak your assignment as necessary. If you apply yourself, you will likely achieve full credit on the assignments while gaining valuable experience conducting and interpreting your analyses,

If my reassurance hasn't convinced you yet, consider this...YOU are the expert in your classroom...the master of your domain. However, the state of Georgia doesn't treat you as such. Sure, you know what you know, and with whatever experience, you can already name interventions which you consider most effective. Well, you may know all this, but it's not enough. You have to provide evidence. The ONLY way to do this is to keep data on your students and present reports with analyses. Until teachers take a stand and do this, the state of Georgia will only keep bombarding you all with ridiculous policies and time-wasting micromanaging requirements. You owe it to your students and your profession to show what you know.

I know you've just about survived Quant 1 (and earned the T-shirt), but this is just not enough. I mean, Quant 1 is a great start. You learned all about means, standard deviations, and t-tests. Those are the basics. You also have been introduced to one-way ANOVAs. Let me guess...you think that's all you need to know. That's what you need for analyzing the results from interventions, right? Well...maybe in some cases...maybe when you have your students broken into 3 or more groups, and you just want to see if their assessment scores are equal or not. But, come on...there are many cases you won't be able to just neatly place them in groups and give them assessments. Rather, there are times you will need to see how other variables play into their

results (i.e., grade level, gender, disability status, etc.). In this case, you will need to know and understand how factorial ANOVAs work. Though I can't fully describe these in this note, factorial ANOVA allows you to analyze the results of your students based on a number of variables. Maybe your results aren't just an issue of one particular group membership. Sometimes variables interact, you know? If you want to learn more about the loveliness known as main effects and interactions, you better sign up for that course!

While I'm at it, don't you suppose pre-existing factors impact the results? For example, is it fair to compare a group of students in the gifted class to an inclusion class? I would bet, without looking, that your gifted students tend to outscore your students in general courses as well as those with disabilities. Certainly, that wouldn't be a fair analysis (in the case that you are testing an intervention). Well, you could use an ANCOVA to account for those factors which covary with the final results. There's a certain method which will adjust the means for your participants and make it a more reasonable analysis of your instructional method. Again, if you want to know more, sign up for the course. Those one-way ANOVAs just won't cut it.

Say, don't you love seeing how your students grow in a school year? Yeah, I did as well back when I was a teacher. You could learn how a repeated measures ANOVA could be used to analyze such gains. Wouldn't that be a great report to submit for your annual evaluation? Yep, your principal would have a tough time giving you low marks with such a thorough analysis of your students and their growth. Or, if you are working on various interventions over a period of time, you could use a split-plot ANOVA. This is a way of analyzing which interventions were more effective over a period of time (i.e., a school year). Aren't you tired of being judged solely by CRCT or EOCT? That's some bull. Analyzing their growth over time, as well as providing evidence different instructional methods, will support your work throughout the year.

Like I said, this is too much to explain in this note. It took me a whole semester to get all that for myself. Just sign up for the class and save this valuable profession from the politicians.

Sincerely,

Brandi Ansley