

ID# _____
(You must use your *real* student ID#)

Final Exam

PS 306, Fall 2002

As always, read each question carefully and answer it completely (including pointing out design flaws if present). Show all your work. The Skidmore Honor Code is in effect, so uphold its principles.

Thanks for all you did to make this a wonderful semester. As a group, this class has been phenomenal...what an amazing collection of bright young minds! It's been an honor to work with you in mastering the material in this course. The relative brevity of the exam reflects my sense that you would excel on any assessment device I might give you. Think of it as a (very modest) gift from me to you.

Have a reflective and relaxing break. May the peace of the season fill all our hearts.

1. Suppose that you completed a senior thesis in which you worked out the basic idea of the study in conjunction with your faculty advisor, you collected all the data, then worked with your advisor on analyses, and then went through several cycles of revision of your thesis based on feedback from your advisor. Ultimately, two years after you graduate, your advisor is interested in including your thesis along with three other studies in a paper to be submitted to a journal for publication. Using the three principles espoused by Fine & Kurdek, what kind of acknowledgement do you think would be appropriate for your contribution. [10 pts]

2. Dr. Ray N. Deere was interested in the impact of three types of Drug (A, B, and C) on minimizing the negative impact of the common cold. A group of 15 people suffering from colds were given one of the three drugs for 3 days after first reporting cold symptoms and then asked to rate how comfortable they felt on a 7-point scale (1 = awful, 7 = excellent). Complete the analysis seen below, then tell Dr. Deere what he should do next. [10 pts]

ANOVA Table for Comfort Score

	DF	Sum of Squares	Mean Square	F-Value	P-Value	Lambda	Power
Drug				.560	.5854	1.120	.120
Residual							

Means Table for Comfort Score

Effect: Drug

	Count	Mean	Std. Dev.	Std. Err.
Drug A	5	5.000	.707	.316
Drug B	5	5.200	.837	.374
Drug C	5	4.600	1.140	.510

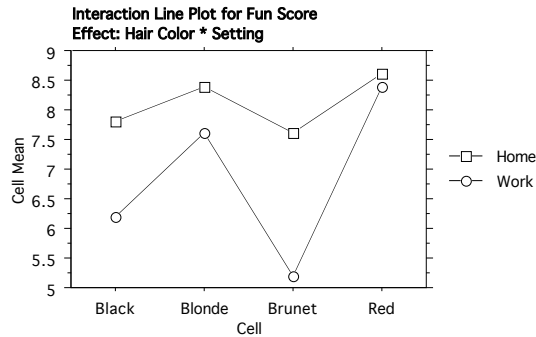
3a. Intrigued by the notion that “blondes have more fun,” Dr. Harry Feller (himself a blonde) decided to collect data from people with various hair colors. Because he thought that blondes would have more fun under a wider range of settings, he decided to collect data in two different settings (Work and Home) for 40 people with four different hair colors: blonde, brunet, red, and black. The dependent variable was a 9-point rating scale of the amount of fun the person was having “at that time.” Complete the analysis below and interpret the results as completely as you can. Do the data indicate that you should stock up on blonde hair coloring? [15 pts]

ANOVA Table for Fun Score

	DF	Sum of Squares	Mean Square	F-Value	P-Value	Lambda	Power
Hair Color				12.893	<.0001	38.679	1.000
Setting				22.321	<.0001	22.321	.999
Hair Color * Setting				3.274	.0336	9.821	.694
Residual			.700				

Means Table for Fun Score
Effect: Hair Color * Setting

	Count	Mean	Std. Dev.	Std. Err.
Black, Home	5	7.800	.837	.374
Black, Work	5	6.200	.837	.374
Blonde, Home	5	8.400	.894	.400
Blonde, Work	5	7.600	.548	.245
Brunet, Home	5	7.600	1.140	.510
Brunet, Work	5	5.200	.837	.374
Red, Home	5	8.600	.548	.245
Red, Work	5	8.400	.894	.400



3b. Suppose that Dr. Feller decided to ignore the two different settings and analyze his data (from 3a) as a single-factor ANOVA with hair color as the only factor. Complete the source table below to illustrate the outcome of that analysis. [5 pts]

Source	df	SS	MS	F

4. Suppose that you were interested in conducting an experiment as a 5x5 design, with a minimum of 30 scores per cell. [5 pts]

How many participants would you need for a completely between (independent groups) design?	
How many participants would you need for a completely within (repeated measures) design?	
How many participants would you need for a mixed design (one factor independent groups and one factor repeated measures)?	

5. Briefly describe at least 3 studies that illustrate the operation of experimenter expectancy effects. [10 pts]

6. Using *either* the West, Gunn, & Chernicky (1975) study from your text (participating in a burglary) *or* one of the two studies used in the class in which we broke into mini-IRB groups, use the APA ethical guidelines to determine whether or not you would have voted to approve the study. Briefly describe the study before making your argument. [10 pts]

7. Do you ever reach the end of an exam and think, “Damn! He didn’t ask *anything* about X and I was ready to nail that question!” Well, here’s your chance. Ask yourself any question that was *not* asked (or related to) any of the other questions on this exam. Then answer that question. Your grade will be based on both the quality of the question and the answer. [5 pts]