

Mixed ANOVA example results section

A 2 x 2 x 3 mixed design ANOVA was conducted to explore the effect of gender (male/female), subject of study (psychology/art) and year of study (year 1/year 2/year 3) on end of year grades. Descriptive statistics for all variables included in the analysis are included in Table 1.

Table 1.
Descriptive statistics

		Male		Female		Total	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Year 1	Psychology	67.40	9.50	67.00	5.83	67.20	7.44
	Art	51.40	8.76	52.80	12.14	52.10	10.56
	Column Mean	59.40	12.06	59.90	12.16		
Year 2	Psychology	68.80	10.03	68.80	4.66	68.80	7.38
	Art	52.6	6.35	55.40	11.33	54.00	8.78
	Column Mean	60.70	11.64	62.10	10.80		
Year 3	Psychology	72.20	10.96	70.40	8.02	71.30	9.10
	Art	55.80	6.80	58.60	11.37	57.20	8.95
	Column Mean	64.00	12.19	64.50	11.17	64.25	11.38
Total							

The three-way interaction between gender, subject of study and year was non-significant, $F(2, 32) = .40, p = .68$. The two-way interactions between subject of study and gender ($F(1, 16) = .15, p = .71$), subject of study and year ($F(2, 32) = .21, p = .81$), and gender and year ($F(2, 32) = .21, p = .81$) did not reach statistical significance.

The main effect of gender was non-significant ($F(1, 16) = .04, p = .85$) indicating that there was no difference in overall scores between males and females. The main effect of subject of study was significant, $F(2, 32) = 13.25, p = .002$, and had a large effect size (partial eta squared = .45). This finding specifies that average end of year grades were significantly higher for students studying psychology ($M = 69.10$) than those studying art ($M = 54.43$). The main effect for year of study was also significant, $F(2, 32) = 17.02, p < .001$, indicating that there is a difference in end of year scores in accordance with the year that students were studying in. Pairwise comparisons show that there was a significant difference between end of year grades at year 1 ($M = 59.65, SD = 11.79$) and year 3 ($M = 64.25, SD = 11.38; p < .05$), and between grades at the end of years 2 and 3 ($M = 61.40, SD = 10.95; M = 64.25, SD = 11.38$ respectively).

statement re: your hypothesis would then belong here at the end