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SOC 283 hypothesis test write-up

Group Statistics

	v49 gender	N	Mean	Std. Deviation	Std. Error Mean
v59 gpa	1 male	211	3.0542	.48654	.03350
	2 female	237	3.2236	.46916	.03048

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
v59 gpa	Equal variances assumed	.020	.887	-3.748	446	.000	-.16937	.04519	-.25818	-.08056
	Equal variances not assumed			-3.740	435.829	.000	-.16937	.04528	-.25837	-.08037

First, state your hypothesis, then name the sample, its size, variables, level of measurement, and dependent and independent. Put group means or proportions, whichever is appropriate, in a sentence with Ns in parentheses (see below). Include words to the effect that the test was or was not significant. Include the value for Z or t, whichever is appropriate, and the probability stated as either “ $p < / p > .05$ ” or you may use the exact probability, as in $p = .0005$. Conclude by noting whether or not you reject the null and therefore found support for your hypothesis.

EXAMPLE:

The hypothesis that women (N=237) have higher gas than men (N=211) was tested using data gathered at a large mid-western university. Data for gpa, the dependent variable, were collected at the interval/ratio level of measurement, while data for gender, the independent variable, were collected at the nominal level. The test showed that the difference between the sample means of 3.05 for men and 3.22 for women was statistically significant at the .05 alpha level ($z = 3.748$, $p = .0005$). This suggests that we reject the null hypothesis of no difference, and therefore found support for our hypothesis that women have higher gas than men.