Southern New Hampshire University

PSY 520 Short Paper 1 Guidelines and Rubric

Refer to the following excerpt from a hypothetical research article that compared memory test performance between two groups of participants: those who consumed a caffeinated beverage before the test and those who consumed a non-caffeinated beverage:

An independent samples t-test was conducted to examine the difference between experimental conditions on test performance. The results indicated a significant difference between participants who consumed the caffeinated beverage and participants who did not, with participants in the caffeinated group (M = 7.64, SD = 2.41) performing worse than participants in the non-caffeinated group (M = 9.81, SD = 3.16), $t(97)$ = 2.14, $p < .05$.

Write a brief paper explaining what the author means when she says that the results were statistically significant. In other words, what does it mean to say that results are statistically significant? Be sure to explain what a p value is and how it relates to statistical significance.

As a reminder, M stands for mean, SD stands for standard deviation, the t indicates that this was a t-test, and the p represents the p value. You can refer to page 377 of your textbook, *Discovering Statistics Using IBM SPSS Statistics,* for help interpreting the statistical results listed in the excerpt, but that may not be necessary.

Guidelines for Submission: Submit a 1–2-page document with double spacing, 12-point font, and one-inch margins, with any sources referenced cited in APA format.

Critical Elements	Exemplary (100%)	Proficient (90%)	Needs Improvement (70%)	Not Evident (0%)	Value
Description of Statistical Significance	Meets "Proficient" criteria, and explanation succinct and needs no clarification	Clearly and accurately describes the meaning of statistical significance	Understanding is evident, though some confusion or lack of clarity is also evident	No explanation, or it is evident that the writer does not understand statistical significance	40
Explanation of P Value	Meets "Proficient" criteria, and explanation is succinct and needs no clarification	Clearly and accurately describes the meaning of p-value	Understanding is evident, though some confusion or lack of clarity is also evident	No explanation, or it is evident that writer does not understand p-values	40
Articulation of Response	Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy-to-read format	Submission has no major errors related to citations, grammar, spelling, syntax, or organization	Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas	20
				Earned Total	**100%**