Title of the Document

Student’s Name

American Intercontinental University

Abstract:

*[(Don’t Indent) In 150 words or less, summarize your Breadth paper. What is the paper about and explain your conclusion?]*

**Introduction**

***[Explanation****: In this section, describe what will be discussed in this report. Briefly describe all main components. Main requirements can be found in assignment description or in this template as separate sections under specific titles. Please* ***DELETE******explanations*** *and replace with project-specific text.]*

**Scenario Analysis**

***[Explanation****: Please read a scenario in the assignment description section and answer the following questions in a substantive manner. Please justify your recommendations. It is important that you elaborate your answer rather than providing one or two words answers. Please* ***DELETE******explanations*** *and replace with project-specific text.]*

**STEP 1:** **SET UP NULL AND ALTERNATIVE HYPOTHESES**

Based on the request description, explain if a one-tailed or two-tailed test is needed. If a one-tailed test is needed, is it a left- or right-tailed test? Explain your choice thoroughly.

State both hypotheses:

Null hypothesis:

Alternative hypothesis:

Define the following:

1. **Standard deviation**: Explain what standard deviation is. What is the standard deviation of the sample provided?
2. **Random variable**: Explain what a random variable is and where in the assignment description you can find it. Describe the random variable.
3. **Test type**: Compare and contrast t-tests and z-tests. What is the main difference between the two tests? Once done, determine which is appropriate in this experiment, given the fact that the sample size is less than 30.

**STEP 2:** **DECIDE THE LEVEL OF SIGNIFICANCE**

Explain what the significance level is and determine whether the one used in assignment description is high, medium, or low. What are some scenarios where you would want a very low level of significance? Locate the level of significance in the assignment description, and list it in this step.

Define the following:

1. **Degrees of freedom**: Explain what degrees of freedom care. What is the equation for calculating the degrees of freedom? Determine the degree of freedom based on the number of reviewed documents in the new experiment.
2. **Critical value**: Explain what the critical value is and how you can determine it. Find the critical value by using **a t-table** and find the intersection point between the degree of freedom and the alpha value that is provided in the assignment description.

**STEP 3: CALCULATE THE TEST STATISTICS**

Calculate the test statistic based on the test type determined in Step 1 and calculate the test statistics. If the determination was done correctly, you should use this formula: .

**STEP 4: COMPARE THE CALCULATED TEST STATISTICS AND THE CRITICAL VALUE**

Construct a bell-shaped diagram based on this problem. Explain what it means for the test statistic to be in the “rejection region. Does our test statistic fall within the rejection region?

**Insert bell-shaped diagram showing critical value and calculated test statistic:**

**Conclusion**

***[***Articulate a conclusion regarding your hypothesis testing. Should we reject or fail to reject our null hypothesis? Elaborate within the context of this problem]

References

Double space does not indent but do alphabetize. Use APA style. If the citation carries over to the next line, the lines will automatically be in hanging indent when you use the following template (overwrite the first two and when you hit <enter> twice after that, the references will fall in hanging indent naturally).

Applebaum, B. C., Zuckerman, M. Y., & Wu, X. (2014). Title of article in sentence case: Subtitle in sentence case. *Journal in Title Case*, *X,* 45-56.

O’Hara, C. (1986). *Name of book in sentence case*: *Subtitle in sentence case.* City, ST: Name of Publisher.