Data Analysis and Application (DAA) Template

Learner Name

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**Data Analysis and Application (DAA) Template**

Use this file for all assignments that require the DAA Template. Although the statistical tests will change from week to week, the basic organization and structure of the DAA remains the same. Update the title of the DAA. Remove this text and provide a brief introduction.

**Data File Description**

1. Describe the context of the data set. You may cite your previous description if the same data set is used from a previous assignment.
2. Specify the variables used in this DAA and the scale of measurement of each variable.
3. Specify sample size (*N*).

**Testing Assumptions**

1. Articulate the assumptions of the statistical test.
2. Paste SPSS output that tests those assumptions and interpret them. Properly embed SPSS output where appropriate. Do not string all output together at the beginning of the section.
3. Summarize whether or not the assumptions are met. If assumptions are not met, discuss how to ameliorate violations of the assumptions.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Tests of Normality** | | | | | | |
|  | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
| Statistic | df | Sig. | Statistic | df | Sig. |
| gender | .397 | 105 | .000 | .619 | 105 | .000 |
| a. Lilliefors Significance Correction | | | | | | |

**Research Question, Hypotheses, and Alpha Level**

1. Articulate a research question relevant to the statistical test.
2. Articulate the null hypothesis and alternative hypothesis.
3. Specify the alpha level.

**Interpretation**

1. Paste SPSS output for an inferential statistic and report it. Properly embed SPSS output where appropriate. Do not string all output together at the beginning of the section.
2. Interpret statistical results against the null hypothesis.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Group Statistics** | | | | | |
|  | gender | N | Mean | Std. Deviation | Std. Error Mean |
| gpa | 1 | 64 | 2.8967 | .74622 | .09328 |
| 2 | 41 | 2.5949 | .76346 | .11923 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |
| gpa | Equal variances assumed | .331 | .566 | 2.004 | 103 | .048 | .30184 | .15062 | .00312 | .60056 |
| Equal variances not assumed |  |  | 1.994 | 83.974 | .049 | .30184 | .15138 | .00080 | .60288 |

**Conclusion**

1. State your conclusions.
2. Analyze strengths and limitations of the statistical test.

**References**

Provide references if necessary.