EPS 351

Lab 3: Single Sample t tests in SPSS

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Dataset: pisa\_us

1. Open/Import/Read Dataset: File -> Open -> Data. Select **All Files** from Files of type to show the file you’re looking for. Select the correct file and click **Open**.

Graphical user interface, application

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1. Conduct a one-sample t-test to show whether the sample of student scome from a population in which the average reading score (wleread3) is equal to the population mean of 490.

**State the null and alternative hypotheses**

**H­­0: The average reading score (wleread3) is equal to 490.**

**H1: The average reading score (wleread3) is not equal to 490.**

1. One-sample t-test: Analyze -> Compare Means -> One Sample T Test -> Find and move **wleread3** into Test Variable(s) -> In the Test Value box at the bottom of the window, enter the hypothesized value for the population mean -> Paste.

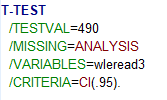
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**Take a screenshot of your syntax and paste it here:**

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**Run the test (highlight the syntax and click the green triangle button). Take a screenshot of the output and paste it below:**

**A screenshot of a test results

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1. Interpreting your results.

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**Table

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**To formally write up your results, use the following format:**

The mean reading score of the sample (*M* = 507.29, *SD* = 116.19, *n* = 1701) was significantly different from the hypothesized population mean of 490 (*t*(1700) = 6.14, *p* < .001, *95% CI* = [11.77, 22.82]).

Note: the confidence interval is referencing the mean difference.

1. Repeat the process – do an One Sample T-Test using the variable wlemath and a hypothesized population mean of 491. State your null and alternative hypotheses and then provide a formal write up for your results.

**H0: The average mathematics score (wlemath) is equal to 491**

**H1: The average mathematics score (wlemath) is not equal to 491**

**Results:** The mean mathematics score of the sample (M = 494.33, SD = 96.52, n = 1692) was not significantly different from the hypothesized population mean of 491 (t(1691) = 1.419, p >.05, 95% CI = [-1.27,7.93]).