Print out for review

General instructions for using SPSS are presented in [Appendix D](javascript://). Following are detailed instructions for using SPSS to perform **the One-Sample *t* Test** for assignments

***Demonstration Example***

A teacher is interested in whether their students are generally satisfied with a new assignment and it. The teacher administers a survey that asks students to rate their satisfaction with the assignment on a scale of (very dissatisfied) to 0 (neither dissatisfied nor satisfied) to (very satisfied). The teacher observes the following ratings:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | −5 | 4 | 8 | 0 | 5 | 4 | 3 | −3 | 5 | 7 | 5 |
| 3 | 3 | −1 | −10 | 8 | 7 | 0 | 6 | −5 | 5 | 10 | 9 |

The steps below will show you how to perform a one-sample *t* test to test the hypothesis that student ratings of satisfaction were different from zero.

***Data Entry***

1. Click the **Variable View** tab to enter information about the variables.
2. In the first row, enter “rating” (for rating score) in the Name field. Add a descriptive label for the variable (e.g., “Satisfaction with Reading”) in the Label field. Fill in the remaining information about your variable where necessary. Be sure that **Type** = “Numeric”, **Width** = “8”, **Decimals** = “0”, **Values** = “None”, **Missing** = “None”, **Columns** = “8”, **Align** = “Right”, and **Measure** = “Scale”.
3. Enter all of the scores from the sample in the “rating” column.

***Data Analysis***

1. Click **Analyze** on the tool bar, select **Compare Means**, and click on **One-Sample T-Test**.
2. Highlight the column label for the set of scores (Satisfaction with Reading) in the left box and click the arrow to move it into the **Test Variable(s)** box.
3. In the **Test Value** box at the bottom of the One-Sample *t* Test window, enter the hypothesized value for the population mean from the null hypothesis. *Note*: The value is automatically set at zero until you type in a new value. In this example, the null hypothesis is that students are neither satisfied nor dissatisfied with the reading; thus, the value should remain zero.
4. In addition to performing the hypothesis test, the program will compute a confidence interval for the population mean difference. The confidence level is automatically set at 95% but you can select **Options** and change the percentage.
5. Click **OK**.

***SPSS Output***

The output shown in the figure below includes a table of sample statistics with the mean, standard deviation, and standard error for the sample mean. A second table shows the results of the hypothesis test, including the values for *t*, *df*, and the level of significance (the *p* value for the test), as well as the mean difference from the hypothesized value of μ and a 95% confidence interval for the mean difference. To obtain a 95% confidence interval for the mean, simply add μ points to the values in the table.

Source: SPSS ®

***Try It Yourself***

Use the steps above to analyze the scores below:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 100 | 94 | 98 | 102 | 123 | 92 | 107 | 127 |
| 104 | 103 | 120 | 117 | 103 | 127 | 125 | 90 |

The null hypothesis is that μ points. Notice that your output should report that .