

Statistical Package for the Social Sciences Applied Assessment Workbook Answer Key

For Instructor's Use With:
Essential Statistics for the
Behavioral Sciences

SPSS IN FOCUS: ENTERING AND DEFINING VARIABLES

Exercise 1.1 Answer Key

Enter data by column:

With regard to the SPSS exercise, answer the following questions:

State whether you used the **data view** or **variable view** to complete each of the following steps:

Naming variables	<u>variable view</u>
Entering the values for each variable	<u>data view</u>

State the following values for the data you entered in SPSS:

The number of values entered (overall)	<u>20</u>
The number of values entered in each group	<u>10</u>
The number of groups	<u>2</u>

Enter data by row:

With regard to the SPSS exercise, answer the following questions:

State whether you used the **data view** or **variable view** to complete each of the following steps:

Naming variables	<u>variable view</u>
Coding variables	<u>variable view</u>
Entering the values for each variable	<u>data view</u>

State the following values for the data you entered in SPSS:

The number of values entered (overall)	<u>20</u>
The number of values entered in each group	<u>10</u>
The number of groups	<u>2</u>

SPSS IN FOCUS: FREQUENCY DISTRIBUTIONS FOR QUANTITATIVE DATA

Exercise 2.1 Answer Key

With regard to the SPSS exercise, answer the following questions:

State the dependent variable: Number of absences

State the following values (you can find these in the SPSS output table):

Total number of scores entered	<u>100</u>
The score at the 50th percentile	<u>5</u>
The frequency at or above the 80th percentile	<u>22</u>
The frequency at or below the 80th percentile	<u>80</u>

Explain why the frequencies at or above and at or below the 80th percentile do not sum to 100.

The frequencies at or above and at or below the 80th percentile do not sum to the total number of scores entered ($N = 100$), because the frequency at the 80th percentile (2) is counted in both percentile ranges.

Remember that a main goal for using frequency distributions is to simplify large data sets, which makes it easier to interpret research data. That being said, how would you characterize or interpret the data displayed in the SPSS output table you created?

The data indicate that half the students at this school were absent from school 5 or fewer times in a given school year, and one-fourth missed 0 or 1 day of school (25 out of 100 students missed only 0 or 1 day of school).

SPSS IN FOCUS: FREQUENCY DISTRIBUTIONS FOR CATEGORICAL DATA

Exercise 2.2 Answer Key

With regard to the SPSS exercise, answer the following questions:

Answer each of the following questions about coding data in SPSS.

Are categories displayed as numbers or words in data view? Numbers

Are categories displayed as numbers or words in the SPSS output table? Words

State the dependent variable: Texting efficiency (Always, Sometimes, Never)

State the following values (you can find these in the SPSS output table):

Total number of scores entered	<u>45</u>
The number of categories	<u>3</u>
The category in the 50th percentile	<u>N</u>

Remember that a main goal for using frequency distributions is to simplify large data sets, which makes it easier to interpret research data. That being said, how would you characterize or interpret the data displayed in the SPSS output table you created?

The largest frequency of texting in class was among those who never (N) looked at the keys. So those who efficiently text, were more often observed texting during class.

SPSS IN FOCUS: HISTOGRAMS, BAR CHARTS, AND PIE CHARTS

Exercise 2.3 Answer Key

With regard to the SPSS exercise, answer the following questions:

For the histogram, state the:

Dependent variable	<u>Amount of calories per meal</u>
Scale of measurement of the dependent variable	<u>Ratio</u>

For the bar chart and pie chart, state the:

Dependent variable	<u>Frequency in each health category</u>
Scale of measurement of the dependent variable	<u>Ratio</u>

Remember that a main goal for using graphs is to simplify large data sets. This goal makes it easier to interpret research data. That being said, how would you characterize or interpret the data displayed in the SPSS output graphs you created?

Most meals (as measured by number of calories) were unhealthy. This is evident both in terms of the number of calories (shown in the histogram) and the frequency of meals in each health category (shown in the bar chart and pie chart).

For your own reference, state which display is easiest for you to read. Please pick only one. There is no right or wrong answer here. It is simply worth recognizing the type of graphical display that makes the most sense to you.

SUGGESTION FOR USING THIS QUESTION IN CLASS: You can record responses of students for this question and distribute it in a frequency distribution for categorical data, and then create a bar chart from it. When you show students the results in class, this often leads to rather interesting conversation and opinions with regards to the “best” way for displaying data. So this little exercise can reinforce previous lectures, as well as gauge student interest. This is something to consider for your classes if you find the time. This exercise typically requires about 10 to 15 minutes of class time; maybe more time when student participation is high.