

1.4: Checking Values

Learning Objectives

At the end of this section you should be able to answer the following questions:

- Is level of measurement for variables a consideration in checking for out of range responses?
- Is the scale of the variables a consideration in checking for out of range responses?

One of the first steps in understanding one's data is to check the values across the cases for indications the responses are what you would expect to see. These expectations should be based on the level of measurement and the scale of the variables.

Therefore, one of the most important data checks you would initially undertake is making sure all of the responses for each variable indicate a value within a range of appropriate values. This is known as checking for *out-of-range responses*.

For example, if you asked participants to write down their age in years, and you find a person who has responded with 512, there is a good chance this was an error made by the participant. Another example would be if you are asking people to rate how happy they are on a 1 to 5 scale, and you get a response of 8. This is another obvious error. These types of responses can occur when a person isn't paying attention to what they are typing or if there is a coding error in the survey software.

If you have found an obvious error in a person's demographic information, there isn't much you can do about it. You can remove that data point, or the whole case, depending on the circumstance. However, if there is an incorrect response in a 1 to 5 scale, you could use mean replacement to correct the inappropriate response.

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