Reliability and validity essay

Education

Reliability and validity are two terms commonly used in statistics and research. The two terms generally refer to the truthfulness of something. Reliability refers to the repeatability of research findings while validity refers to the believability and credibility of those findings (Litwin, 1996). In order for research data to be of use it must be both valid and reliable. Validity and reliability are therefore mutually dependent.

In the case of reliability, questions to be asked include: if the same study was to be done a second time would it still yield the same results? If indeed, the study was to obtain the same results, then the data obtained is said to be reliable. In case several persons are observing the same event or behaviour, all observers should agree on the findings to verify on its reliability (Litwin, 1996).

Some of the questions to be asked to verify on the validity of data include: Are the findings genuine? Examples of questions to test validity include; is an SAT score a valid predictor of the GPA score of a first year student in college? In most cases the expected answers to the questions elicit a ' yes' or ' no' response.

Validity and reliability are intertwined in that if data is valid it must be reliable (Litwin, 1996). For instance, if people obtain different scores in a test every time they take it, the test might not predict anything. If a test is reliable it does not mean that it is valid. Moreover, if an instrument is to be valid it has to be reliable. Reliability is therefore a necessary but not a sufficient condition for validity and as such the two are mutually dependent.

References

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