

Meanings of concepts



Meanings of Concepts Variable: The quantitative phenomenon under study, such as the height marks in exam, sales in store, etc. is termed as variable.

2. Latent variables: These are variables that are not directly observed by our naked eyes but are rather determined from other variables that are observed and directly measured. For example, a man's happiness is measured in terms of the money he possesses, lifestyle, etc.

3. Manifest variables: It is the observed variables itself and is not determined by the latent variables (Lea, 1997). In other words the feed backs or the responses on the apparent variables are the consequence of an individual's pose on the latent variable(s).

4. Operational hypothesis: As the term suggests, it deal with variables or the concepts that are calculated and are directly correlated to data and are also linked to the formal study design.

5. Constant: Constants are real numbers or numerical values that are extensively interesting in some way (Wikipedia, 2008). These are numerical numbers.

6. Independent variable: Independent variables are changes that occur in an experiment that are directly caused by the researcher.

7. Dependent variable: Dependent variables are changes that occur due to independent variables (Cool Science projects, N. D.). In other words these are dependent on the independent variable and the values are considerably influenced by it.

8. Validity: It refers to the extent to which a study precisely represents the definite concept that the researcher is trying to measure. Validity is concerned with the study's success at measuring a particular aspect that the researcher is trying to study.

9. Reliability: Reliability is concerned with the precision of the definite measuring method or the instrument used to study (Colorado State University, 2008).
10. Epistemic relationship: Identifying epistemic relationship is a major step in any of the empirical research. In general, it is the cognitive knowledge that plays a significant role in research.
11. Data collection: Researchers collect information regarding various aspects related to the study and the data that is collected contributes to the finding or the final outcome. In other words it is the activity of accumulating primary data records for a given set of observations.
12. Unit of analysis: A statistical unit is the unit of study or size for which data are collected or derived. The selection of units of analysis accurately captures the characteristics of the larger population (uchicago. edu).
13. Population: A population refers to a set of variables collected or data collected for the complete set of objects of analysis. For example, the students in a class, the collection of votes (uchicago. edu).
14. Sample: A sample refers to a data collection that includes a set of cases or elements selected from a population. For example a public opinion survey.
15. Representativeness: “ It is the desirable properties of a sample which refers to the selection of units of analysis that precisely detain the characteristics of the larger population” (uchicago. edu).
16. Random sample: “ A random sample is one selected by a method connecting a random component. Random sampling can also consist to taking numerous independent observations from the same probability distribution, without involving any real population”.

17. Discrete variable: “ A discrete variable is one that will not take on all values within the limits of the variable”. For instance, responses to a three point rating scale can only take on the values 1, 2 and 3 and not the value 1.5 or 1.2.

18. Dichotomous variable: “ As the term suggests these variables are those that can be only categorized into two groups”. For example, government versus non-government organizations.

19. Continuous variable: “ A continuous variable is one for which, within the limits the variable ranges for which any value is possible”. For instance, the variable " time to solve a problem" is continuous since it could take 5 minutes, 5.10 minutes etc. to finish a problem.

20. Descriptive statistics: “ Descriptive statistics are utilized to describe the fundamental features of the data in a study and it also give summaries about the sample and the measures”.

21. Inferential Statistics: “ With inferential statistics, a researcher tries to attain proper conclusions that extend beyond the immediate data alone”. For instance, inferential statistics use tries to infer from the sample data the perception of a population.

22. Inferences: “ In general it refers to the results that the statistical data points out. Statistical induction comprises the use of statistics to make inferences relating to some unidentified feature of a population”.

23. Statistical significance test: “ A significance test such as the chi test is performed to determine if an observed value of a statistic varies from a hypothesized value of a parameter to draw the assumption that the hypothesized value of the parameter is not the true value”. (uchicago. edu)

24. Measures of association: “ As with single means, proportions, or rates,

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measures of association are statistically unbiased estimates of the true population experience. They estimate average association just as single measures estimate average occurrence”.

References

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