

What is a conceptual variable and what are some examples?

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A conceptual variable is an abstract concept or idea that is being studied in research. It is not directly measurable, but it can be defined and operationalized into a measurable form. Examples of conceptual variables include intelligence, motivation, happiness, and self-esteem. These variables are often used in psychological and social research studies to understand and measure human behaviors and attitudes. For instance, intelligence can be operationalized into a measurable form by using IQ tests, while motivation can be measured by self-report questionnaires or behavioral observations. By defining and operationalizing conceptual variables, researchers can accurately study and analyze complex human phenomena.

What is a Conceptual Variable? (Definition & Examples)

In statistics, a conceptual variable represents some abstract construct or entity that we want to measure.

However, we can't directly measure a conceptual variable so we instead use an actual measure to quantify the conceptual variable.

For example, suppose a researcher wants to assess the "overall happiness" of individuals. This represents a conceptual variable because there is no way to directly assign a value of "overall happiness" to individuals.

Instead, the researcher may have individuals respond to survey questions that have possible responses such as:

I am extremely dissatisfied with my life situation. I am

somewhat dissatisfied with my life situation. I feel neutral about my life situation. I am somewhat satisfied with my life situation. I am extremely satisfied with my life situation.

The researcher can then use these responses to assign some type of "overall happiness" score to individuals.

The variable "overall happiness" is the true variable of interest but since it is conceptual we must use the survey responses as actual measures that can be used to assess overall happiness.

Read through the following scenarios for more examples of conceptual variables and actual measures.

Example 1: Workplace Performance

Suppose a Human Resources department at a certain company wants to assess workplace performance for each individual in a company so they use manager performance ratings to assign a performance score to each individual.

The conceptual variable is workplace performance and the actual measure is the manager performance rating,

which may be measured on a scale of 0 to 10.

Example 2: Athleticism

Suppose a track coach wants to measure overall athleticism of his runners so he uses a combination of their record times in the 200 meter run, 400 meter run, and 800 meter run.

The conceptual variable is athleticism and the actual measure is the individual time for each runner at the various distances, which may be measured in minutes and seconds.

Example 3: Strength

Suppose a lifting coach wants to measure the strength of athletes in his gym so he uses a combination of their personal best records in squat, bench press, and shoulder press.

The conceptual variable is strength and the actual measure is the actual weight in pounds that each athlete was able to lift for the various exercises.

Example 4: Depression

Suppose a psychologist wants to measure depression

levels in individuals so he uses a self-reported survey that asks individuals to rate their overall satisfaction in different areas of their life.

The conceptual variable is depression and the actual measure is the score that individuals receive on the self-reported survey.

Summary: Conceptual Variables vs. Actual Measures

The following table summarizes the difference between conceptual variables and actual measures:

	Conceptual Variable	Actual Measure
Definition	Abstract variable of interest.	Actual variable that can be measured.
Example #1	Workplace Performance	Manager Ratings
Example #2	Athleticism	Running Times
Example #3	Strength	Weight Lifted
Example #4	Depression	Self-reported Survey

Note that in each example, the conceptual variable is the variable of interest and the actual measure is the thing we use to assign a quantitative value to the conceptual variable.