

Topics for discussion 2

Chapters 2

What is a variable?

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1. What can serve as a variable? Independent variables? Dependent variables?

1. Basically, almost anything that can be scaled or observed or described can serve as variables.
2. The manipulation that is under the control of the experimenter is called the *independent variable*.
3. The performance of the two groups that is not under the experimenter's control is called the *dependent variable*.

Can you think of some examples? Dependent and independent variables?

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2. What are the “nominal scale,” the “ordinal scale,” and the “interval scale”? Can you also provide examples for each type of scale?

1. Nominal scales: items in naming variables.
Examples: gender; groups, etc.
 2. Ordinal scales: ranking scales.
Examples: very poor to excellent in writing.
 3. Interval scales: the scales that measure a variable with consistent value, regardless of time and place.
Examples: the test scores
- ? What are the weaknesses/limitations of each scale?

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3. What is the moderator variable?

1. The moderator variable is an independent variable.
2. It modifies the relationship between the dependent variable and the independent variable

Example:

Tests \ Age	0-40		40-80	
	Male	Female	Male	Female
Test 1	20	60	35	45
Test 2	24	56	45	35

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4. What is the control variable?

1. The control variable is an dependent variable that is used to neutralize the potential effect it might have on behavior. For instance, the experimenter can control the educational background, socioeconomic status, etc.
 2. Purpose: To avoid internal or external threats of validity.
- ? What's the difference between the moderate variable and the control variable?

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5. What is the intervening variable?

Usually, the effect of the independent variable on the dependent variable is shown in terms of scores, counts, time measurement, etc. That is, the dependent variable is measured in some way to determine the effect of the independent variable. However, there is a process underlying the behavior we are measuring which is usually neither observable nor measurable. For example, in the study of oral fluency, oral fluency is measured. We have not, however, said anything about the *process* underlying the acquisition of fluency. A number of variables have not been measured which may or may not be part of that process--learning, intelligence, frustration. These have not been measured or manipulated. These are called *intervening variables*.

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