

Speaking Notes
PADM 5502
Dr. Neubauer

WHERE WE ARE

- This is week 5.

REVIEW

Last week I introduced LEVELS OF MEASUREMENT. These are important because HOW YOU ASK AN ITEM determines what you can do with it in terms of statistical methods to TEST A HYPOTHESIS.

For statistical purposes, INTERVAL data is best.

For statistical purposes, ORDINAL data allows some statistical methods (and is often “misused” as if it were interval-level).

Some variables must be operationalized at the nominal level, just because of the nature of the variable.

Consider the way academic grades are measured. Often an assignment is given a numerical grade (interval-level measurement). Then at the end of the term a letter grade is assigned (ordinal level measurement). Then grade-point averages (GPAs) are calculated based on letter grades which are treated as if they are interval rather than ordinal. There is substantial SUBJECTIVITY involved in most grading. But when the final result is presented as a number, it has the appearance of PRECISION and OBJECTIVITY that may not be warranted.

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Note: We have “skipped” the whole discussion of sampling strategies. We will return to that later.

The whole idea here is to identify one or more DEPENDENT VARIABLES and also identify INDEPENDENT VARIABLES that you have reason to believe may “cause” them.

A DEPENDENT VARIABLE is a concept (usually an attitude or behavior) that you want to better understand or predict among a POPULATION of people. For example, among a population of people, what kinds of people (in terms of independent variables) are more likely to believe that climate change is a hoax?

An independent variable (in a given research project) could be, for example, faith in the mainstream media.

A hypothesis could be the following, for example.

H3: that people who do not trust the mainstream media and more likely than people who do trust the mainstream media to believe that climate change is a hoax.

or,

H5: that Republicans and more likely than Democrats to believe that climate change is a hoax.

or,

H14: that men are more likely than women to believe that climate change is a hoax.

or,

H15: that people who are heavy users of social media and more likely than others to believe that climate change is a hoax.

and so forth.

Belief that climate change is a hoax (for example) is a concept. It is a variable in research because not all people share it equally. If it was a constant (or not salient among people in the population) it would not be a useful DEPENDENT VARIABLE.

IN THIS COURSE, we are going to PRETEND that we will actually collect data from say, 200 people, and then learn how to go through the steps in PRIMARY RESEARCH to TEST our hypotheses.

The CAPSTONE COURSE is based on SECONDARY RESEARCH.

CONSIDER RELIGIOUSITY AS A VARIABLE

<https://en.wikipedia.org/wiki/Religiosity>

<https://pure.uvt.nl/ws/portalfiles/portal/1443326/2012-073.pdf>

REMINDE ME NEXT WEEK THAT WE NEED TO CONSIDER CAUSATION, CORRELATION AND SPURIOUS RELATIONSHIPS AMONG VARIABLES.