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What could go wrong?

A Review of Research for Non-Researchers



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Share your
thoughts!





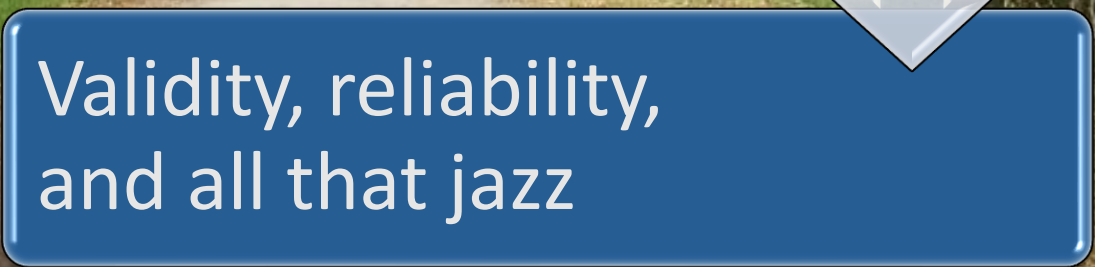
Road Map



Ethics



Design: Oh bias



Validity, reliability,
and all that jazz

Poll # 1: Research Experience



Terminology



What do I mean by
research?

Terminology



Any data collection
and analysis involving
human subjects

Terminology



NOT the federal
definition

Research vs. research

“Research is a systematic investigation that includes research development, testing and evaluation and is intended to develop or contribute to general knowledge.”

Research vs. research

*“Research is a **systematic** investigation that includes research development, testing and evaluation and **is intended to develop or contribute to general knowledge.**”*

Research vs. research




Why does this
matter?

*Federal guidelines
protect Research ethics!*

Ethics and Organizational Research

What types of organizational research have you observed?



Share your thoughts!

Let's start with *ethics*



A word cloud of research ethics terms. The words are arranged in a non-uniform, overlapping manner. The largest words are 'populations' and 'vulnerable'. Other prominent words include 'autonomy', 'coercion', 'harm', 'justice', 'respect', and 'beneficence'. Smaller words include 'convenience', 'avoid', and 'sample'.

autonomy avoid beneficence coercion
convenience harm justice
populations respect sample
vulnerable

Federal Research Guidelines - Ethics

Respect for persons

Beneficence

Justice

A close-up portrait of a young girl with light brown hair and freckles, looking directly at the camera. She is holding a thick, white, braided rope with her left hand. She is wearing a blue denim shirt. The background is a plain, light brown wall.

Respect *for* *persons*

autonomous agents *informed consent*



Autonomy

Reach an **informed**
decision

Not be **coerced**

Say **no**

Informed consent

What is the study about?

How long will it take me?

What are the risks (really)?

What are the benefits (for me and others)?

What will you do with the results?

What happens if I say no?

Who has access to the data?

What happens to the data?



To what extent can the principle of RESPECT FOR PERSONS/AUTONOMY be applied in organizational research?



As much as possible!



Any coercion is likely to
invalidate your results.



beneficence



First do *no harm*

Maximizing benefits

Minimizing risks

Benefit / harm ratio

**Does this study
make sense?**

Justice



Justice

Are you splitting the benefits and risks equitably?

Is your selection of subjects fair or just convenient?

Are you systematically or inadvertently excluding people who could benefit from the study?



Summary

Respect

- autonomy, informed consent

Beneficence

- Benefits vs. risks

Justice

- fairness in attribution of risks and benefits

Poll # 2: Ethics and research



Oh Bias



1. Social desirability

people answer what the
researcher wishes to see



2. History

would it have happened anyway?



3. Primacy

you remember the first thing
you saw or heard



4. Recency

you remember the last
thing you saw or heard



5. Testing

people “learn from the test.”



Poll # 3: Biases



Validity, reliability, and all that jazz



Poll # 4: Test example



Validity

Validity of the study

Validity of the instrument

Validity

Validity of the study

Validity of the instrument

Instrument Validity

Does your instrument
really answer the question
you wanted to ask?



Validity what?



Construct Validity



Face Validity



Predictive Validity



Concurrent Validity

Construct validity

Do you have friends at work?

How satisfied are you with your salary?

How satisfied are you with your benefits?



Validity reports

Look for the “validity” section

Don’t confuse “validity” with “reliability”



What is reliability?



Two types of reliability



Test-retest reliability

What is your favorite color?

Flip a coin!

Always similar results

Does it always matter?



Internal consistency

whether the items within the test relate to one another



An extraversion test

- How sociable are you?
- Do you enjoy going out with friends?
- Do you speak more than you listen?
- Are you outgoing?

An extraversion test

- How sociable are you?
- Do you enjoy going out with friends?
- Do you speak more than you listen?
- Are you outgoing?
- *Do you go out for dinner with your friends often?*
- *Do you travel a lot?*

Alpha coefficient

a measure of internal consistency of the test items



How high must the alpha be?



Is a high alpha “enough”?



An extraversion test

Do you like chocolate?

Do you enjoy chocolate?

If you could, would you eat more chocolate?

Is chocolate enjoyable to you?

Are you fond of chocolate?

In summary



Final words of wisdom



Ask for a research report



**Beware exaggerated
claims!**



Collaborate with academic research





**Remember – not only
“researchers” conduct
“research”!**

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