

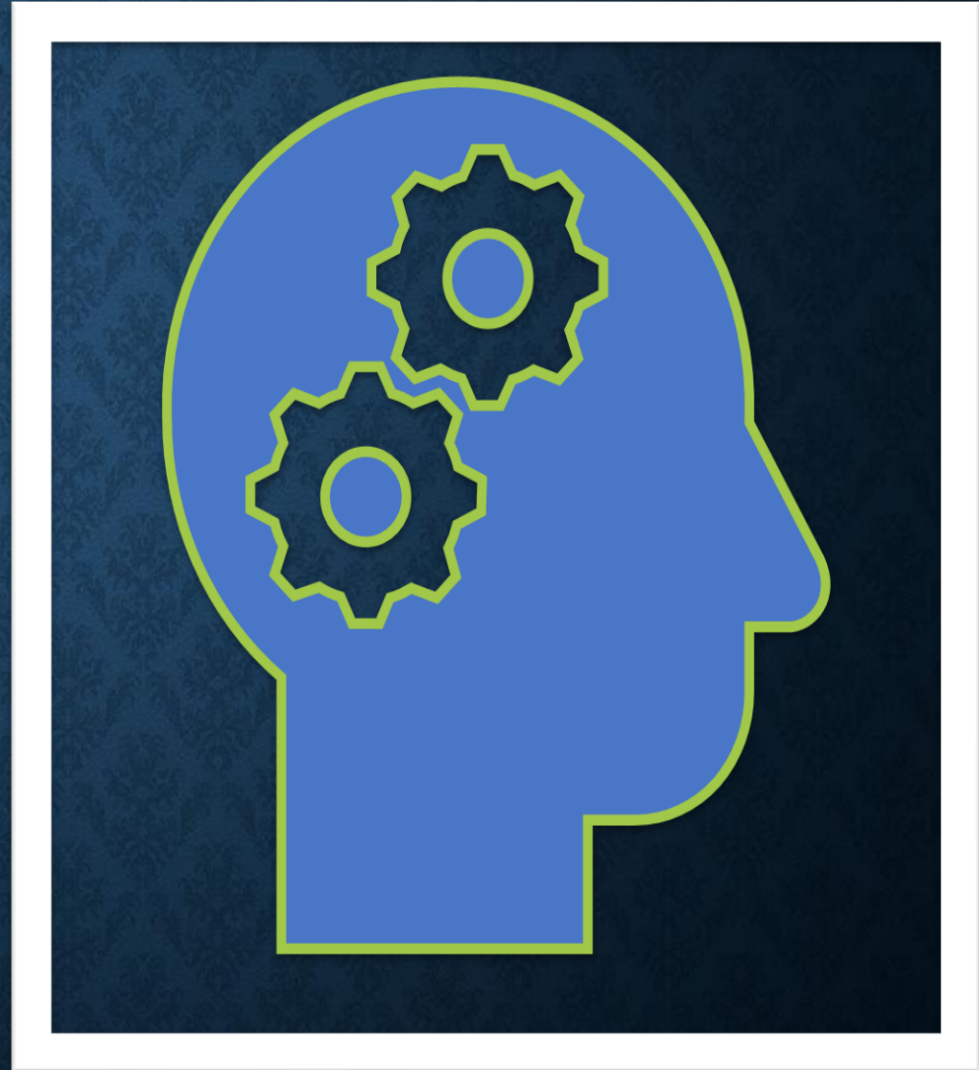
GENERATING HYPOTHESIS AND THEORIES

Dr. Wardisiani

Research-

Core Science

School Year 2021-2022



INTRODUCTION

- Generating hypotheses and theories is typically the third step in the process of doing research after identifying a problem or question and reviewing the literature
- At this point, its time to start considering possible answers





THEORIES

- Theories are generalized explanations for what we observe in the world
- Observations tell us what to expect
- We all know that what goes up must come down. Theory helps us understand why that is the case

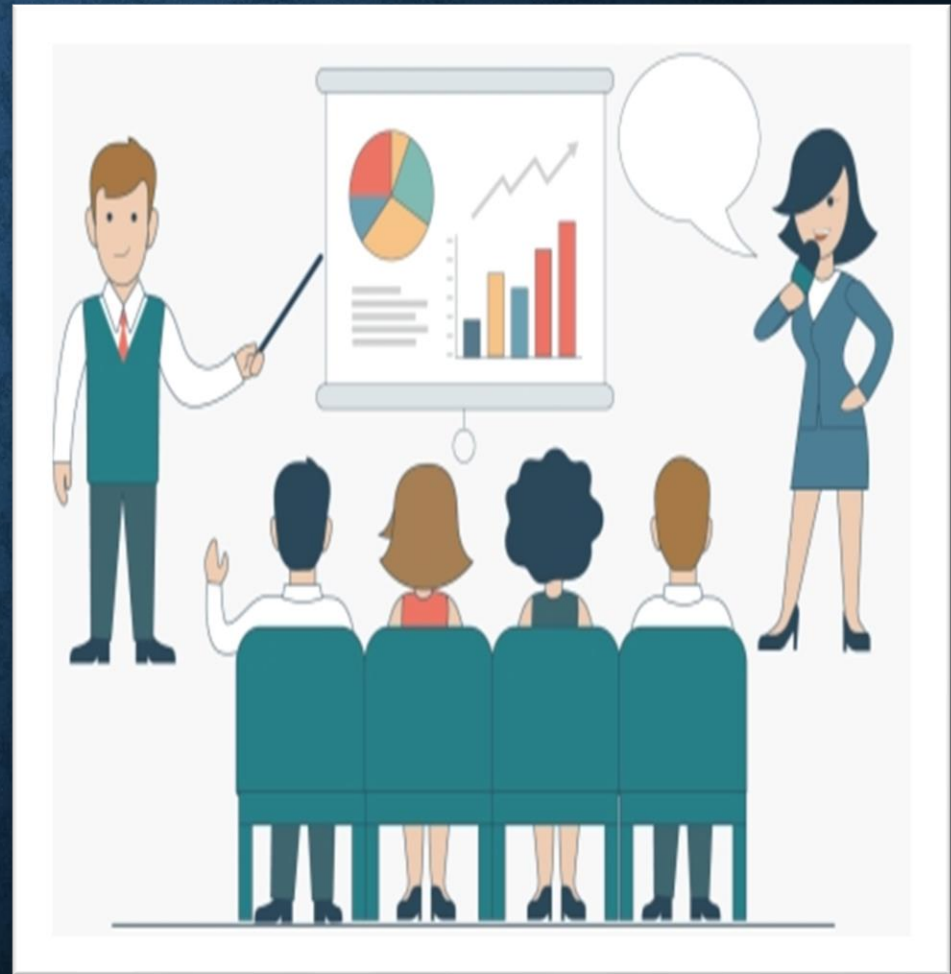
THEORIES

- Research isn't always about building or testing theories
- Sometimes you just want to observe or describe rather than explain or understand.
- Sometimes, in action research, your goal isn't to explain broader patterns but to find specific solutions for specific people, groups or organizations.



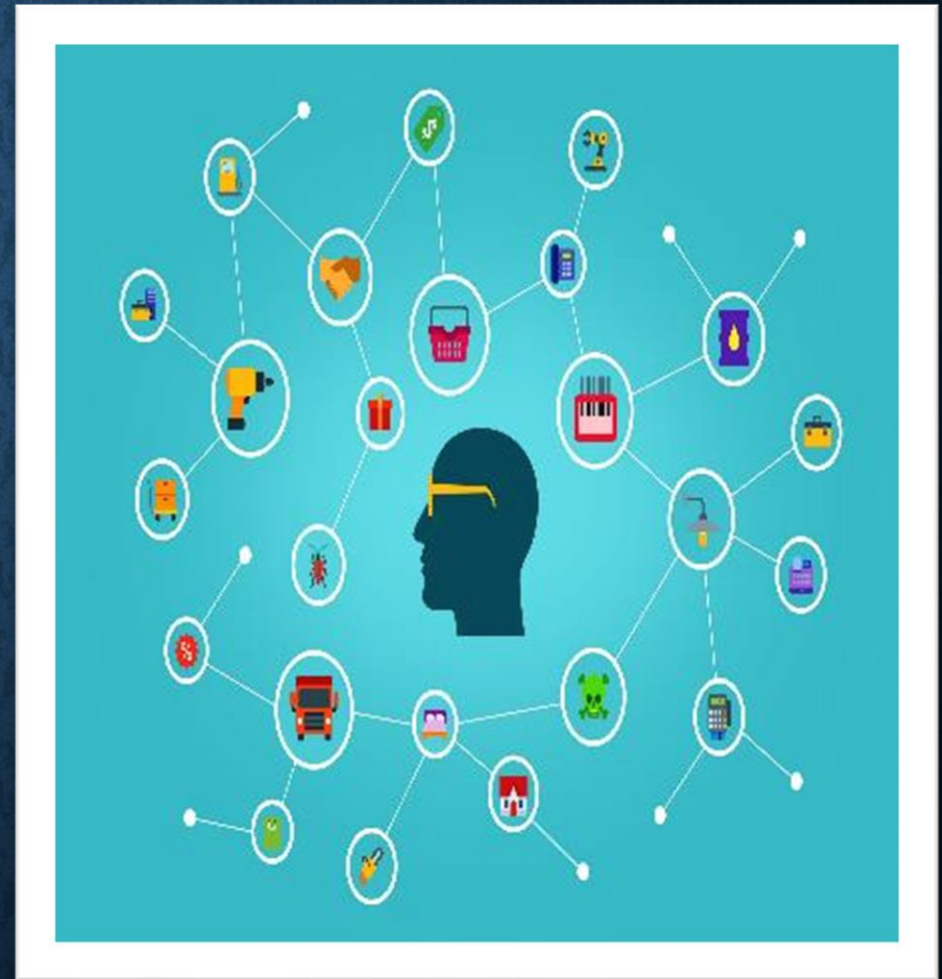
RESEARCH IS FOCUSED ON EXPLANATION

- Understanding why can help you apply ideas to new cases and new events – and even let you make predictions.
- Any time you are interested in why or how things happen or want to fit an event into a larger pattern or trend, you are going to want a theory.



OCCAM'S RAZOR PRINCIPLE

- The simplest explanation is usually the best.
- Parsimony means that when everything is else is equal, simpler explanations are preferred to complex ones.
- This idea is to maximize the story that a few variables can tell. If you can explain some outcome using just one or two variables, that is considered a stronger theory than if you have 10 or 12 variables.





DEVELOPING A THEORY

- Start by thinking systematically about how and why one variable of interest affects another variable of interest
- Theories are often about unwrapping the causal mechanisms that get you from point A to point B

SUPPORTING YOUR THEORY: CHECK OUT THE LITERATURE

Does your findings support your explanation?

Are there gaps that are not explained?

Are there cases that seem to contradict the general findings?

Are there debates that are not yet resolved?

Key: All of these are fertile grounds to spark your own ideas

EARLY ON IN YOUR RESEARCH

- Examining data can be a useful way to generate theories as well as hypothesis.
- Eventually, you will want to subject those theories and hypothesis to proper tests, but initially you need some knowledge on which to base your theories.



THEORIES ANSWER RESEARCH QUESTIONS

- The key to ensure that your theories helps answer your research question, aims at explaining general principles- not just specific cases – and advances understanding of the phenomenon of interest.



THANK YOU



Questions
and
Comments?



jwardisiani@pths209.org