



Exploring the Working Hypothesis

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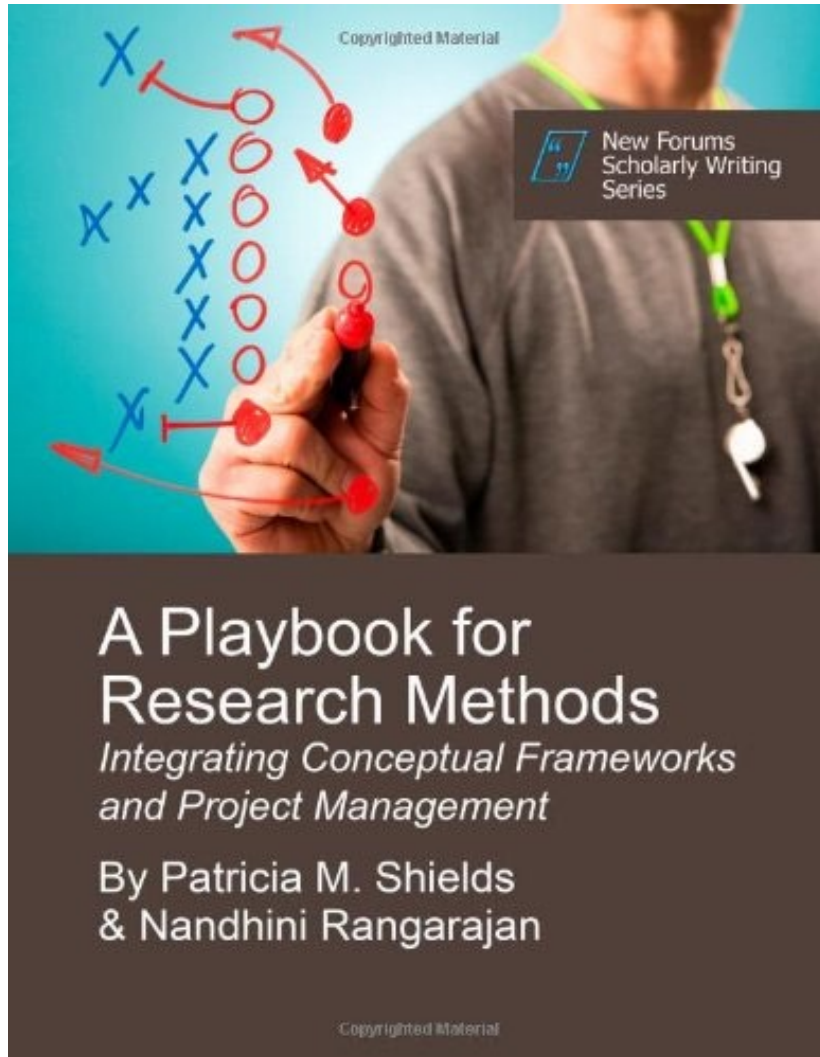
2019 Public Administration Theory Network Annual Conference, Denver Colorado, May 30 – June 2



Overview

1. Story
2. Definition of Working Hypothesis
3. Nature of Hypotheses
4. Hypotheses and Theory – research process
5. Discovery – Exploratory Research
6. Where it fits (philosophical positioning)
7. Practical considerations
8. Examples
9. Conclusion





Purpose	Framework
Explanation	Hypothesis
Description	Categories
Exploration	Working Hypotheses
Gauging	Practical Ideal Type
Decision Making	Models of Operations Research

Four articles & book chapters

- Intermediate Theory: Missing Link in Successful Student Scholarship *JPAE*. 2006
- Pragmatism as Philosophy of Science. *Research in PA* series 1998.
- Public Administration Methodology: A Pragmatic Perspective *Foundations of PA* 2017
- Doing Practical Research and Publishing in Military Studies *Routledge Handbook of Research Methods in Military Studies*. 2014



Mattia Casula. Began



PhD Student



Post - Doc



Working hypotheses are:

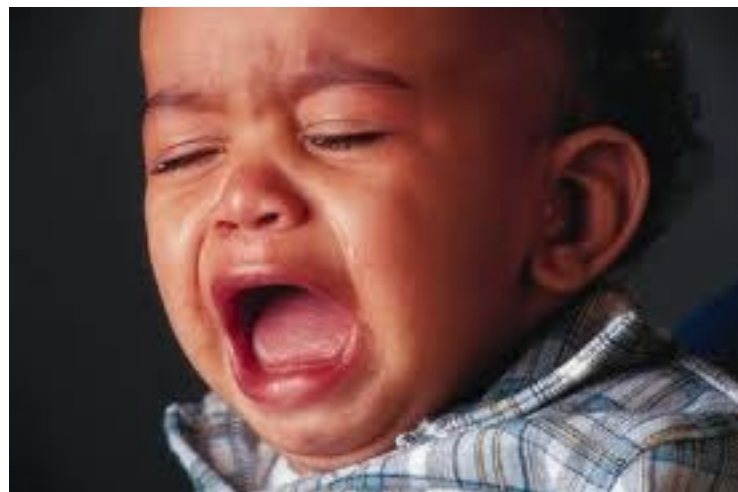
1. provisional statements of expectations
2. framework for
3. exploratory
4. deductive
5. empirical inquiry
6. can use both qualitative and quantitative evidence



Explanation & Hypotheses



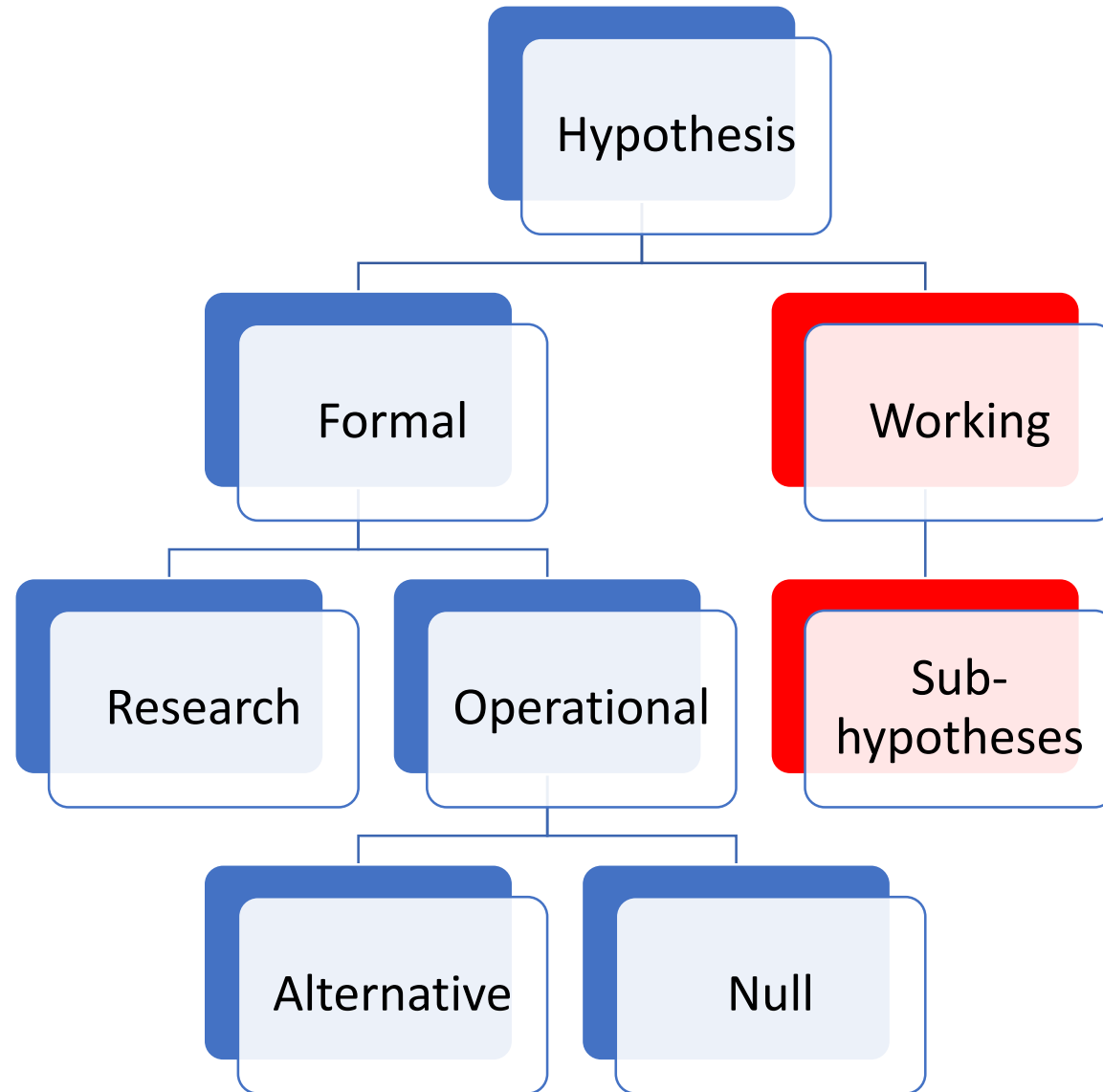
WHY?



Be-Cause...

Hypotheses – plausible & testable answers
to a why question.







Hypothesis

- An idea or **explanation** for something that is based on known facts but has not yet been proven. Cambridge Dictionary
- an idea or **explanation** that you then test through study and experimentation. Vocabulary. Com
- a proposed **explanation** for a phenomenon. To be a scientific hypothesis, the scientific method requires that one can test it. Wikipedia
- tentative, testable answer to a scientific question. Science Buddies
- an idea that can be tested to see if it is true or not. Longman Dictionary
- A prediction or educated-guess based on current evidence that is yet to be tested. Urban Dictionary
- Statement of **expectations** that can be subject to test. Shields & Rangarajan, 2013

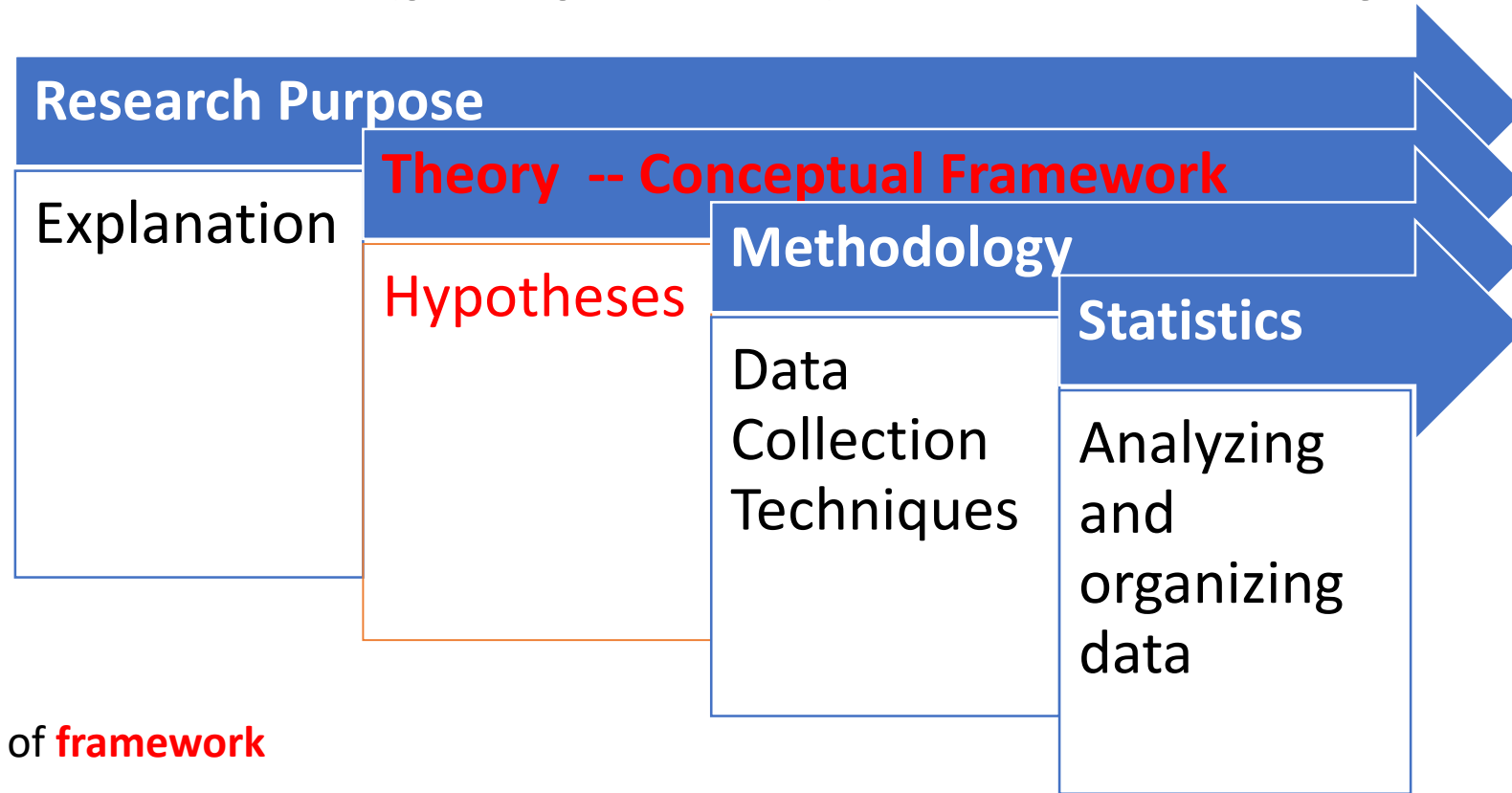


Theory:

summarizes a hypothesis or group of hypotheses that have been supported with repeated testing. A theory is valid as long as there is no evidence to dispute it. Hence, theories can be disproven. If evidence accumulated to support a hypothesis, then the hypothesis can be accepted as a good **explanation** of a phenomenon. **One might say a theory is an accepted hypothesis.**



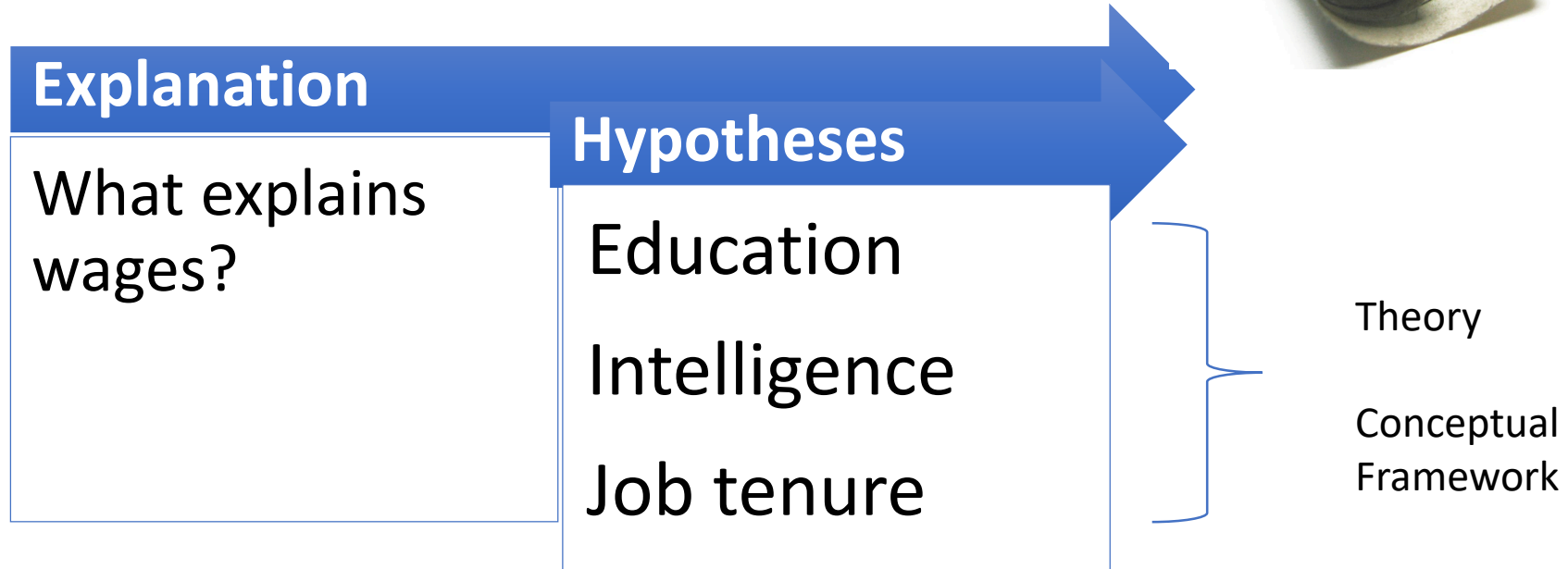
Research Process Taking into account Positivist (post-positivist) notions of Theory



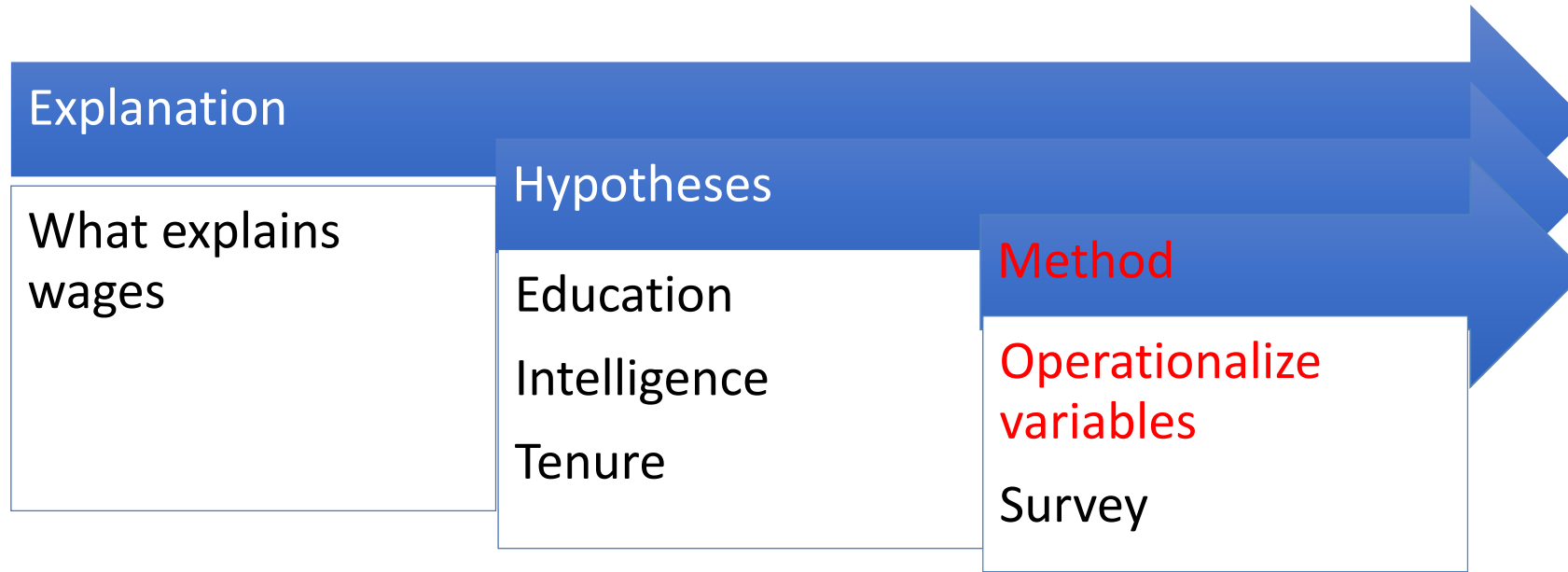
Hypotheses as type of **framework**

Connections across research process

What Explains the level of Wages?



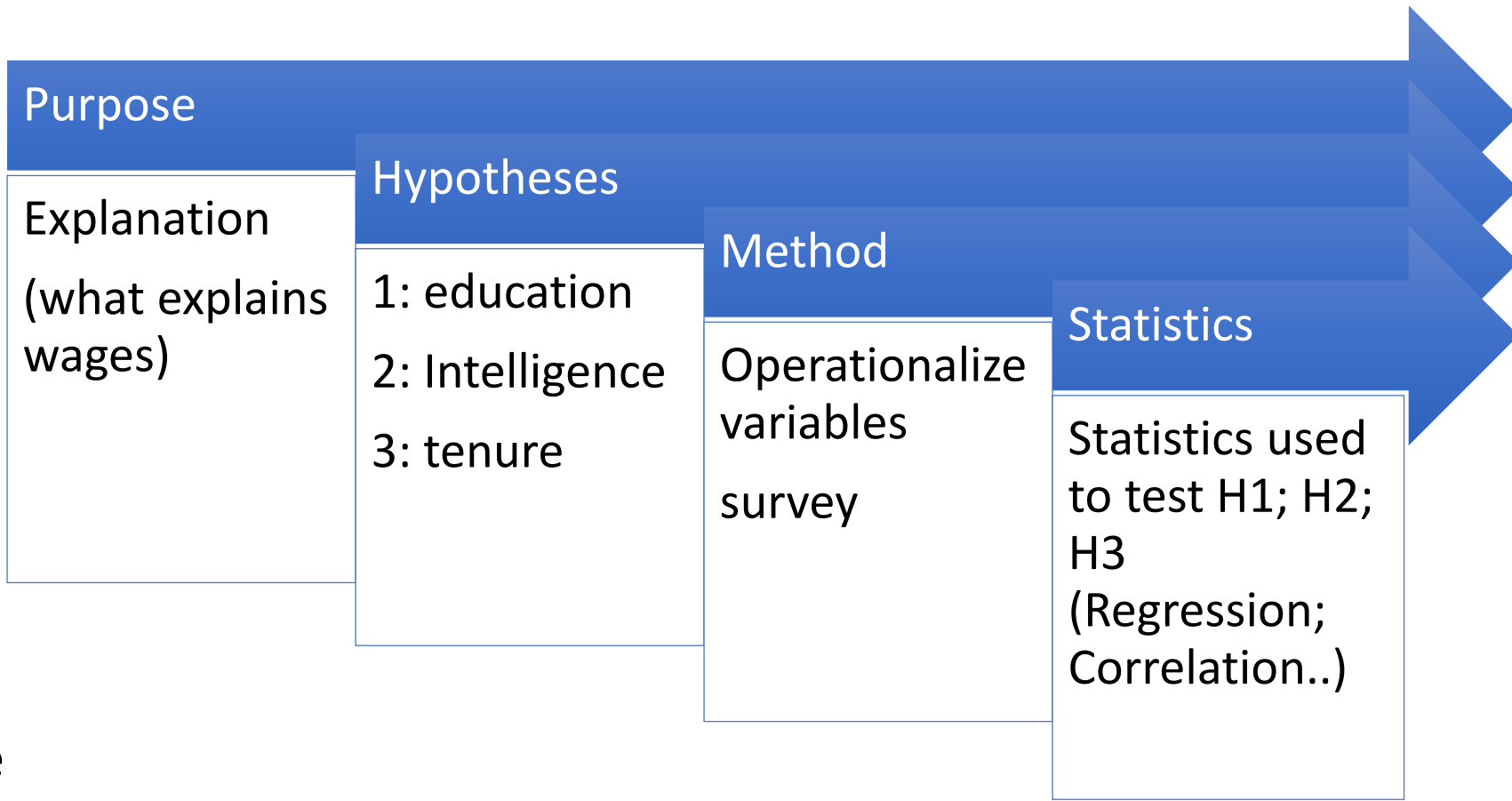
- H1: As education increases wages increase
- H2: As intelligence increases wages increase
- H3: As job tenure increases wages increase



RESTATE HYPOTHESES

Dependent variable – Wages (Hourly rate of pay \$)

Independent variables Education (years of school completed) H1
Intelligence (IQ score) H2
Tenure (months on the job) H3



Quantitative

Positivism

Measurement – correspondence

Deductive



Brief Origin Story



Blinded to their Confusion



Mumble, mumble

Admit

-- I did not know the answer

Dr. Shields:
What is a
Conceptual Framework ?



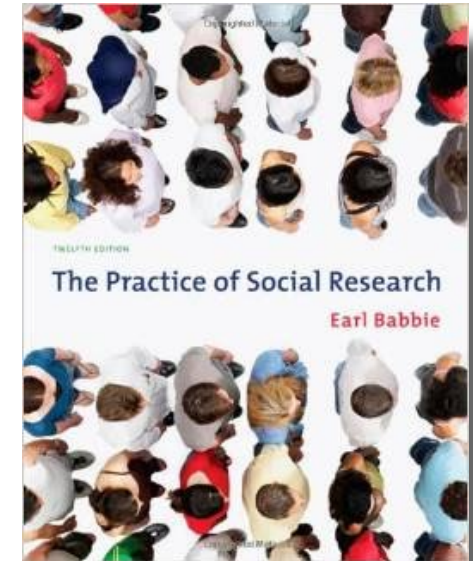
Earl Babbie's
Practice of Social Research

Three Research Purposes

Explanation - Hypotheses

Description

Exploration



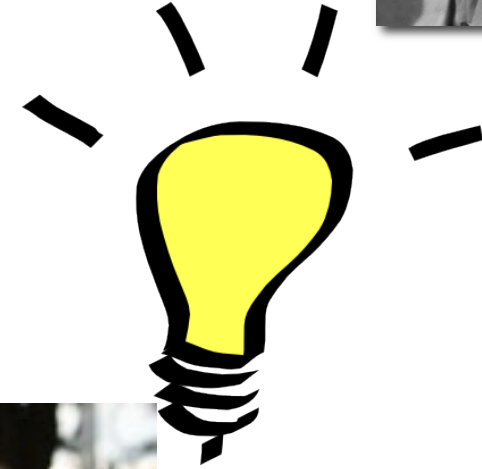
One might say a **theory** is an accepted hypothesis.

Pragmatism's focus on **purposeful inquiry** -- led me to look more carefully at the research purpose.

Public administration **problems** do not fit neatly into Explanatory Purpose



HYPOTHESIS



Program implementation problems

Best way to manage?

Best design?

What Questions -- baseline descriptive information





BEGAN
Earl Babbie's
Practice of Social Research



John Dewey

Three Research Purposes

Explanation

Description

Exploration

Explanation - Hypotheses

Description – Categories??

Exploration **?????**

Working
Hypotheses



EXPLORATORY

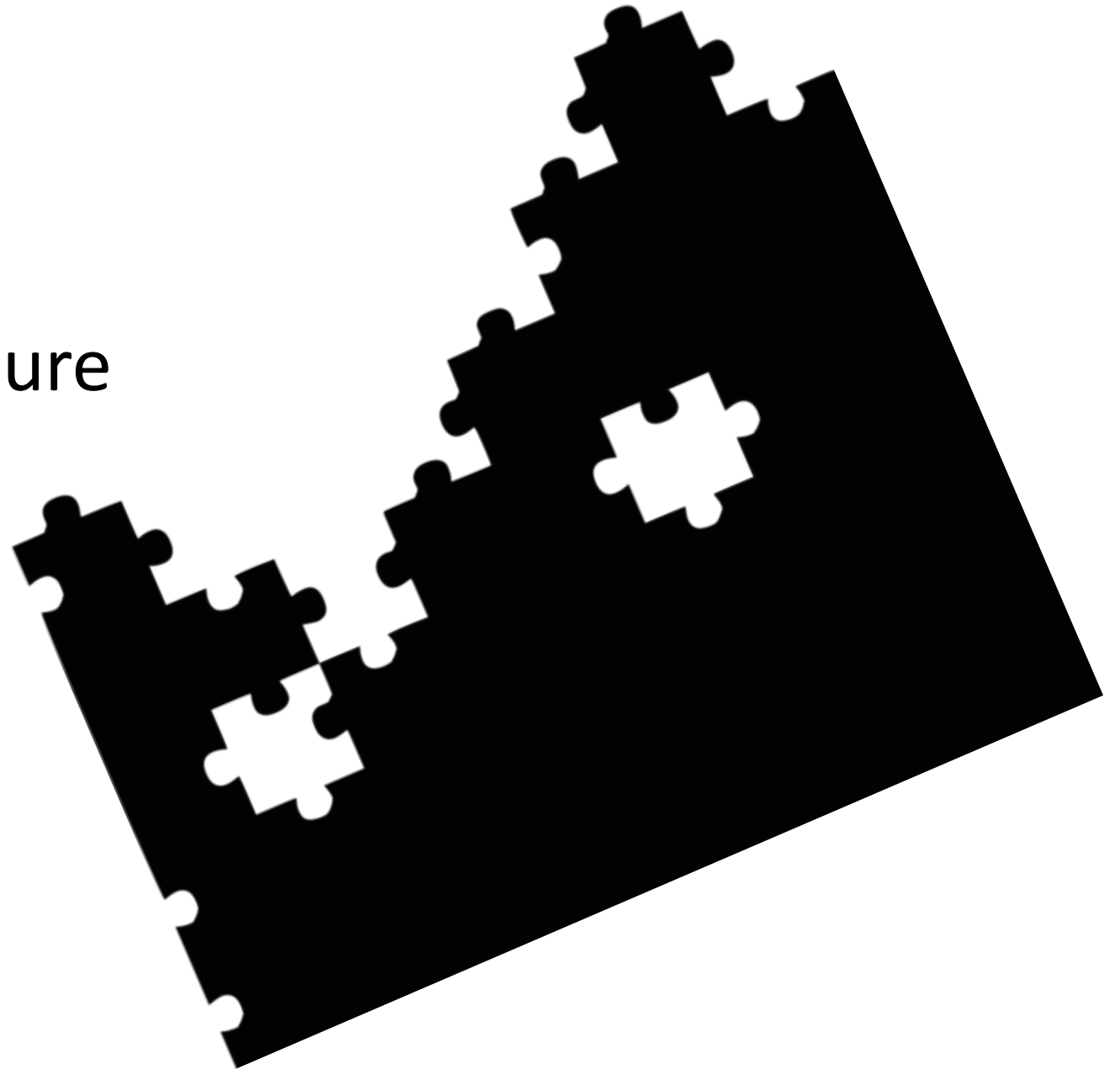
- Used for problems in their preliminary, early stages.
- Provisional means of advancing investigation.
- Hypothesis generating or refining.
- Not necessarily looking to eventually establish cause or explanation.
- Can focus on the particular (new context)





Where does the
Working Hypothesis fit

Larger methodology picture





Theory/Framework

Hypothesis

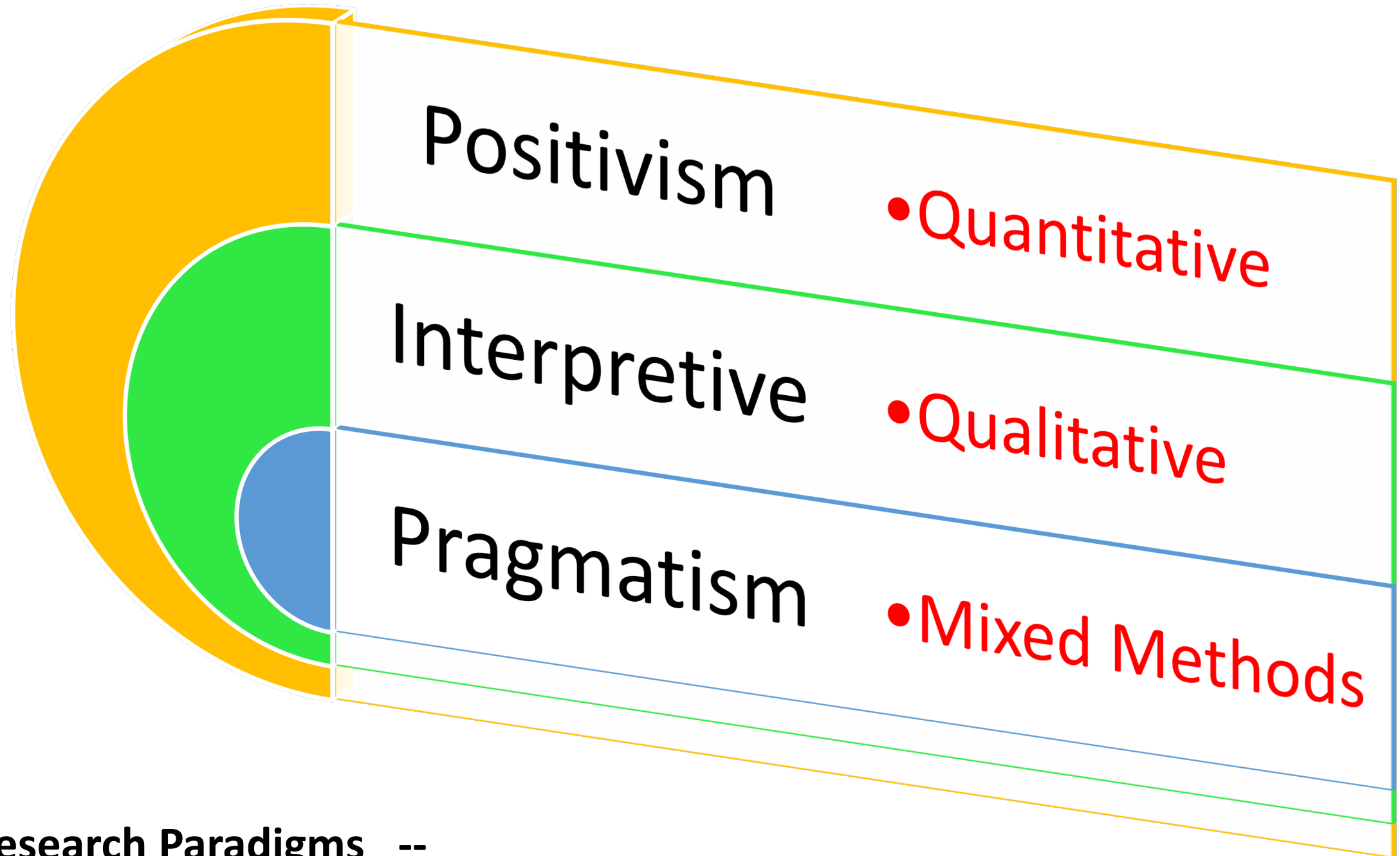
Deductive
Reasoning



Inductive
Reasoning

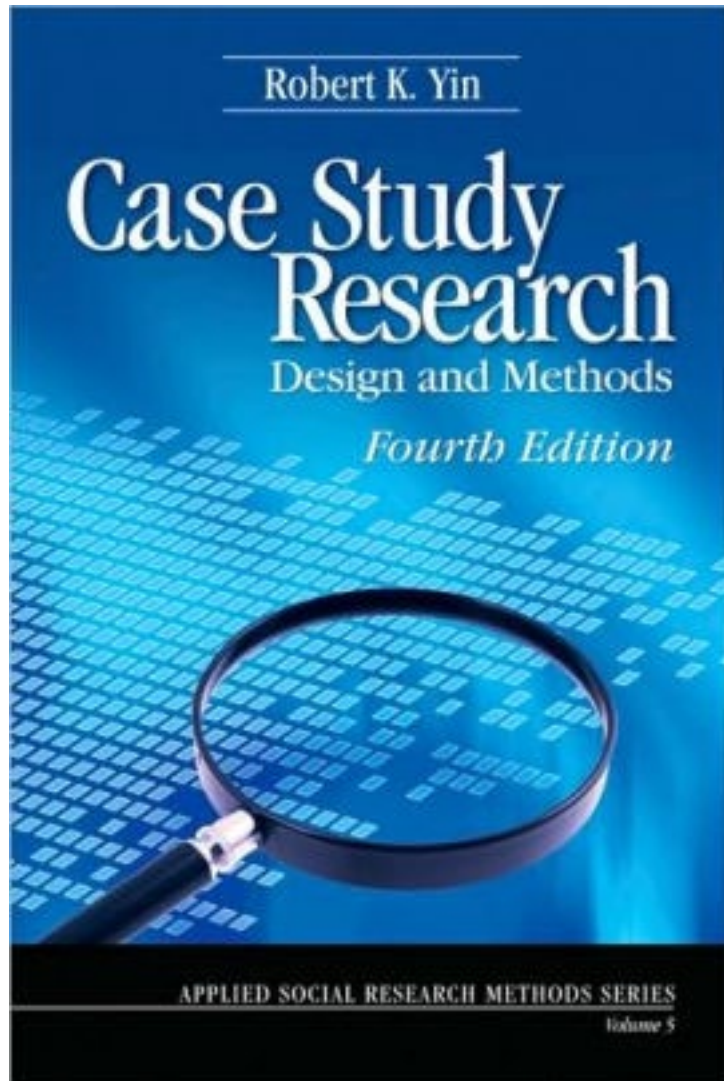


Data/evidence



Research Paradigms --

Case Study Research



**Can use both inductive (interpretivist)
Deductive strategy**

Yin **Linking** “data to propositions, and the criteria for interpreting findings” least well developed procedure in case studies.

Problem Identified in Literature for qualitative studies (experience as editor) **Weak alignment** across steps in research process.



Exploration generally occurs within the context of a **case** and the goal is to collect evidence, which would support (or fail to support – be falsified) certain expectations about the case. These preliminary or not-quite-formal expectations are called **Working Hypotheses**.

(Shields & Rangarajan, 2013, p. 110)





Research Purpose

Exploration



Theory -- Conceptual Framework

Working Hypotheses

Methodology

Qualitative evidence



Statistics

Analyzing/
organizing
data
(qualitative
evidence)

Qualitative (and quant)

Pragmatism (purposeful inquiry)

Evidence – test hypothesis

Deductive



Working hypotheses are:

1. provisional statements of expectations
2. framework for
3. exploratory
4. deductive
5. empirical inquiry
6. can use both qualitative and quantitative evidence



Deductive Logic				
Type of Purpose	Micro-Conceptual Framework	Methodology	Data Analysis	Primary philosophical underpinning
Explanatory	Formal Hypotheses	Quantitative, experimental design, survey, time series, existing data	Inferential statistics	Positivism
Descriptive	Categories	Quantitative, survey, content analysis	Simple descriptive statistics	Positivism
Exploratory (1)	Working Hypotheses	qualitative, mixed methods, case study	Evidence of all types may or may not use statistics	Pragmatism
Exploratory (2)	Pillar Questions	qualitative, mixed methods, case studies	Evidence of all types may or may not use statistics	Pragmatism
Gauging	Practical Ideal Type	qualitative, mixed methods, case studies	Evidence of all types may or may not use statistics	Pragmatism
Decision Making	Models of Operations Research	Cost Benefit analysis, Cost Effectiveness Analysis, linear programing etc.	Quantitative techniques of operations research	Positivism
Inductive Logic				
Experiential Understanding		Qualitative	Thick description	Interpretivist
	Grounded theory	Qualitative	Constant Comparative	Interpretivist
Description		Qualitative	Generating categories	Interpretivist

EXAMPLES

Assessing sexual harassment training using knowledge framework

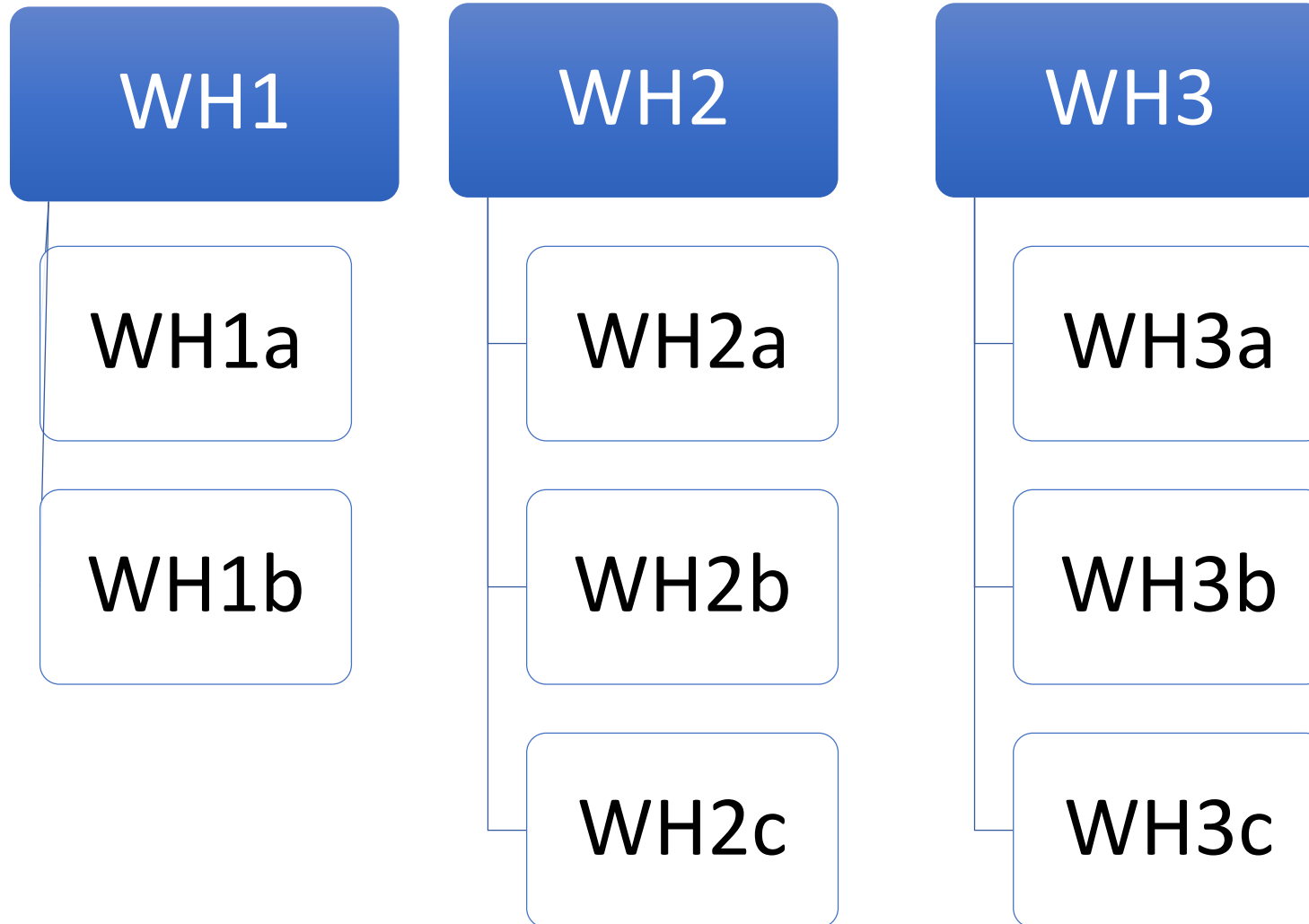
Assessing service learning program at a charter school

Assessing policy responses to sexual violence during conflicts

Assessing strategies to sustain organizational success at a non-profit organization

Assessing a framework to evaluate casino gaming legislation

Generic Organization: Working Hypotheses



Working hypotheses were used to *explore* sexual harassment training in an agency using
Lundvall's Knowledge Taxonomy – Know What, Know-How, Know-Who, Know-Why

Working Hypotheses as a framework for assessing sexual harassment training.

WH1: Capital Metro provides adequate ***know-what*** knowledge in its sexual Harassment training

WH1a: The sexual harassment training includes information on **anti-discrimination laws** (Title VII).

WH1b: The sexual harassment training includes information on **key definitions**.

WH1c: The sexual harassment training includes information on **Equal Employment Opportunity and Harassment policy**.

WH1d: Capital Metro provides training on sexual harassment **policy history**.

WH2: Capital Metro provides adequate ***know-how*** knowledge in its sexual Harassment training.

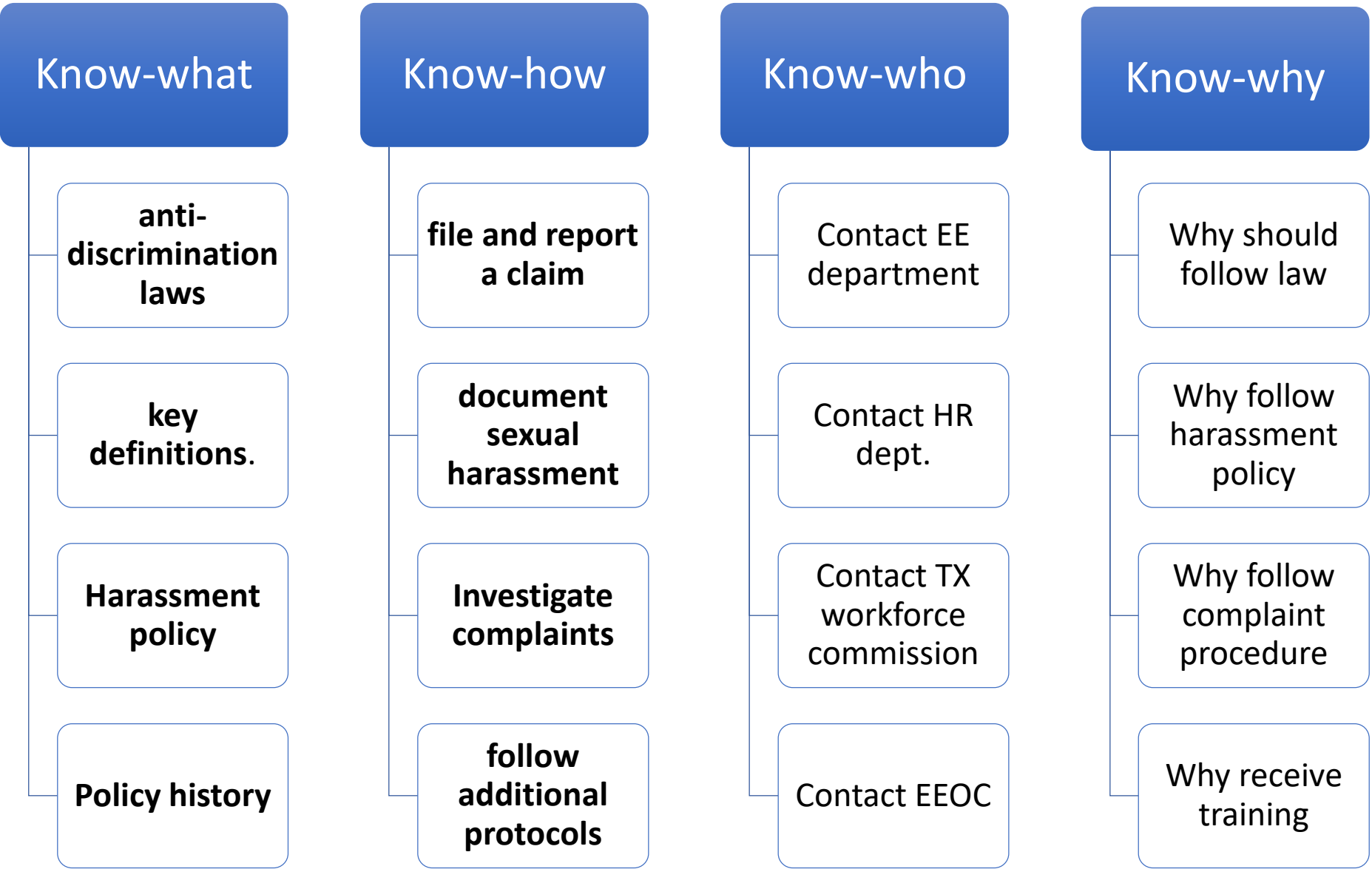
WH2a: Training is provided on how to **file and report a claim** of harassment

WH2b: Training is provided on how to **document sexual harassment** situations.

WH2c: Training is provided on how to **investigate sexual harassment complaints**.

WH2d: Training is provided on how to **follow additional harassment policy procedures protocol**

Kinds of knowledge included in Sexual Harassment Training



Key connection
to literature

Table 4 Example of Operationalization Table for Working Hypotheses

Working Hypothesis	Method of data collection	Evidence/criteria
WH1: Capital Metro provides adequate <i>know-what</i> knowledge in its sexual Harassment training		
WH1a: Capital Metro provides training on anti-discrimination laws (Title VII).	Interview supervisors and managers	How does the sexual harassment training address anti-discrimination laws? Additional questions as appropriate.
	Interview participants	What did you learn about anti-discrimination law? Additional questions as appropriate.
	Document Analysis 1) Capital Metro EEO Basic training manual 2) Capital Metro EEO Policy	How do these documents address history of discrimination laws?
WH1b: Capital Metro provides training on sexual harassment definitions.	Interview supervisors and managers	How does the sexual harassment training address key definitions? Additional questions as appropriate
	Interview participants	What definitions about sexual harassment did you learn? Additional questions as appropriate.
	Document Analysis 1) Capital Metro EEO Basic training manual 2) Capital Metro EEO Policy	Which definitions can be found in these documents?
WH1c: and WH1d	Data collection methods	Further specification of evidence used
WH2: Capital Metro sexual harassment training provides adequate “know how” training		
WH2a: Capital Metro provides training on <i>how-to</i> file and report a claim of harassment	Interview supervisors and managers.	How well does the sexual harassment training prepare participants to report a claim? Additional questions as appropriate.
	Interview with participants	How well did the sexual harassment training prepare you to report a claim? Additional questions as appropriate.
	Document Analysis 1) Capital Metro EEO Basic training manual 2) Capital Metro EEO Policy	How well do the documents cover how-to file a report of sexual harassment?
WH2b: Capital Metro provides training on <i>how to</i> follow Capital Metro harassment policy procedures protocol.	Interview of supervisors and managers	How does the sexual harassment training address how to file and report a complaint? Additional questions as appropriate.
	Interview participants	How well did the training cover how to file a complaint? Additional questions as appropriate.
	Document Analysis 1) Capital Metro EEO Basic training manual 2) Capital Metro EEO Policy	Do these documents address how to file and report a complaint?
Wh2c & d	Data collection methods. Etc.	Specify further evidence used.

Appendix

Operationalization table for sexual harassment training study

James Swift (2010)

WH2: Capital Metro sexual harassment training provides adequate "know how" training.

	Interviews	Documents Analyzed	Overall Support	Recommendations
WH2a: Capital Metro provides training on how to follow Capital Metro harassment policy procedures protocol.	Strong Support	Strong Support	Strong	Continue to address the proper procedures of following Capital Metro's policy protocol.
WH2b: Capital Metro provides training on how to file and report a complaint of harassment.	Strong Support	Limited Support	Limited	Emphasize the importance of how to report and file a complaint of harassment. Make pamphlets for employees to take with them after training.
WH2c: Capital Metro provides training on how to document sexual harassment situations.	Strong Support	Limited Support	Limited	Emphasize the importance of documentation and make a write-up in the training manual and a pamphlet to take with them when training is over.
WH2d: Capital Metro provides training on how Capital Metro investigates sexual harassment cases.	Strong Support	Limited Support	Limited	Document more on the steps that the EEO officer takes to investigate a complaint.
WH2: Overall Support	Strong	Limited		Increase efforts to document more processes regarding investigations and reporting.

Exploring Capital Metro's Sexual Harassment Training Using Dr. Bengt-Ake Lundvall's Taxonomy of Knowledge Principles


James Swift

<https://digital.library.txstate.edu/handle/10877/3671>


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Working Hypothesis 1: The service learning model offered by the American Institute for Learning (AIL) reflects various **principles of pragmatic education.**

- WH1a: AIL practices **collaborative learning activities**
- WH1b: AIL teachers participate in **collaborative teaching activities**
- WH1c: AIL promotes **community education**
- WH1d: AIL offers **practical education**

WH1a: AIL practices collaborative learning activities

Features of Collaboration	Method	Evidence
1. Classes are small enough to give individual attention to students	Teacher Survey	Class size at AIL is adequate for providing students with individual attention SA - SD
	Student Survey	Are classes at AIL too big, too small, just the right size
	Classroom observation	How many students were present in the classroom?
2. Students are free to move around the room and seek help from others	Teacher Survey	At AIL, students are free to move around in the classroom and seek help from others SA - SD
	Student Survey	
	Classroom observation	Are students free to move about the classroom? Describe
3 Teachers are viewed as a “Fellow worker” as appose to an “all – powerful ruler”	Student Survey	Which of the following terms best describe teachers at AIL Fellow-workers, all–powerful leader or neither
	Counselor Survey	Students perceive teachers as All Powerful leaders, fellow-workers , neither?
	Classroom observation	How many times do the teachers refer to the students by name? How many times does a teacher recognize a child’s idea? Describe interaction between students and teachers.

Example Illustrating a Set of Working Hypotheses as a framework for comparative case studies.

Stages of Potential International Response to Sexual Violence*

WH1: Nonrecognition or on action to prevent sexual violence during conflict

WH1a: Sexual violence is not recognized as part of a specific conflict or the conflict itself is not recognized.

WH1b: Wartime sexual violence as a general issue is not recognized

WH1c: No action is taken, and no formal discussion occurs within or among International Organization

WH2: Sexual Violence is documented during a conflict and learning occurs.

WH2a: Sexual violence as an aspect of a conflict is the subject of a report, publication, study or conference attended by a state or IO.

WH2b: Information gathering about sexual violence during a conflict occurs

H3: There is a rhetorical response and condemnation of sexual violence during a conflict.

WH3a: Sexual violence as part of a specific conflict is subject of a speech, unprompted remarks or press release of a high-ranking state official or leader of an IO.

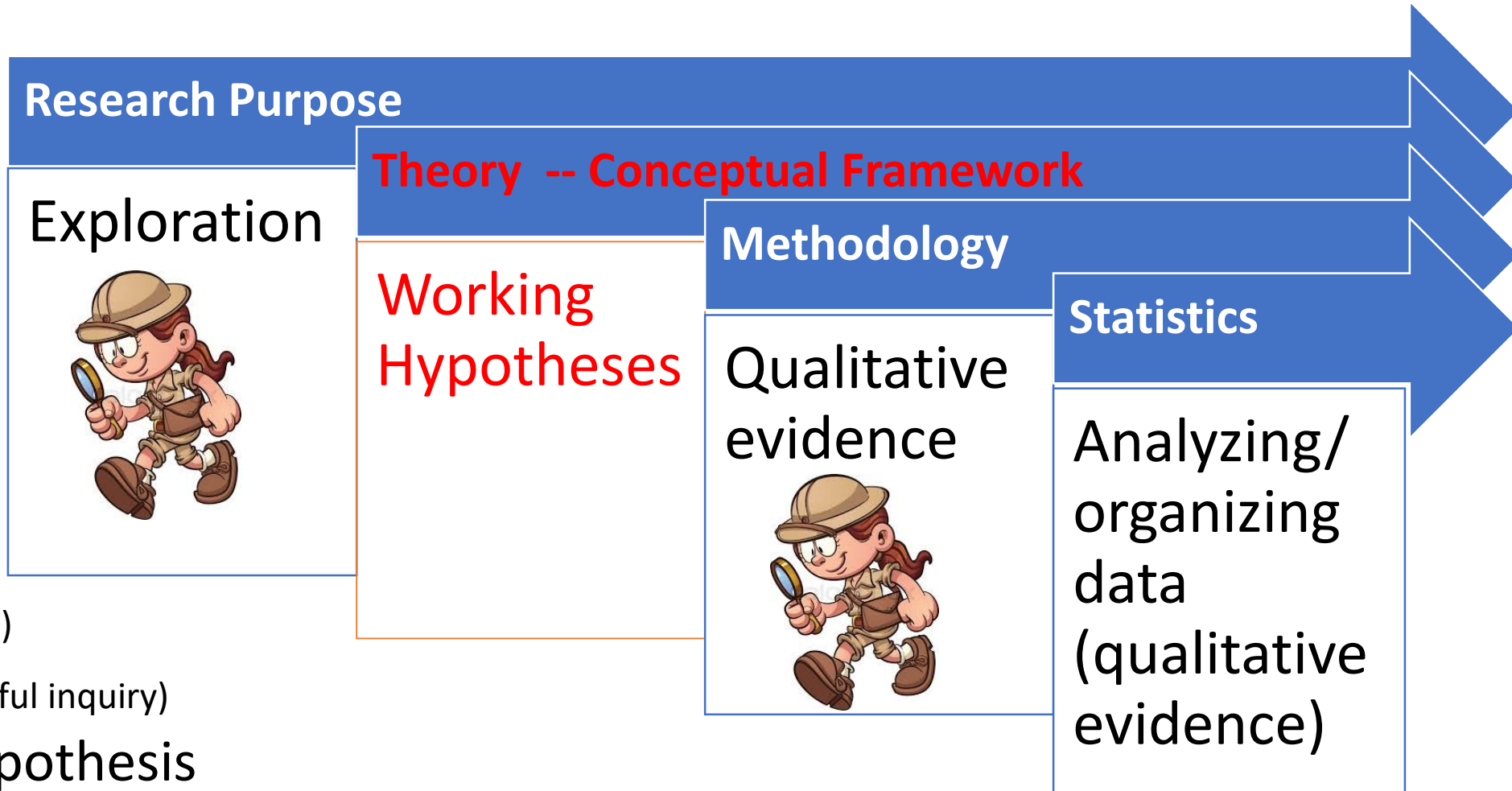
WH3b: Rhetorical remarks occur but resources to reduce or study sexual violence are not committed.

Three additional stages of international response were provided by Crawford (2017)

* This table was constructed adapting Table 1.1 of Crawford's (2017) book Wartime Sexual Violence.



Hope you learned something exploring Working Hypotheses



Qualitative (and quant)

Pragmatism (purposeful inquiry)

Evidence – test hypothesis

Deductive

Case studies

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