




Scientific Method

Research Methods: Descriptive



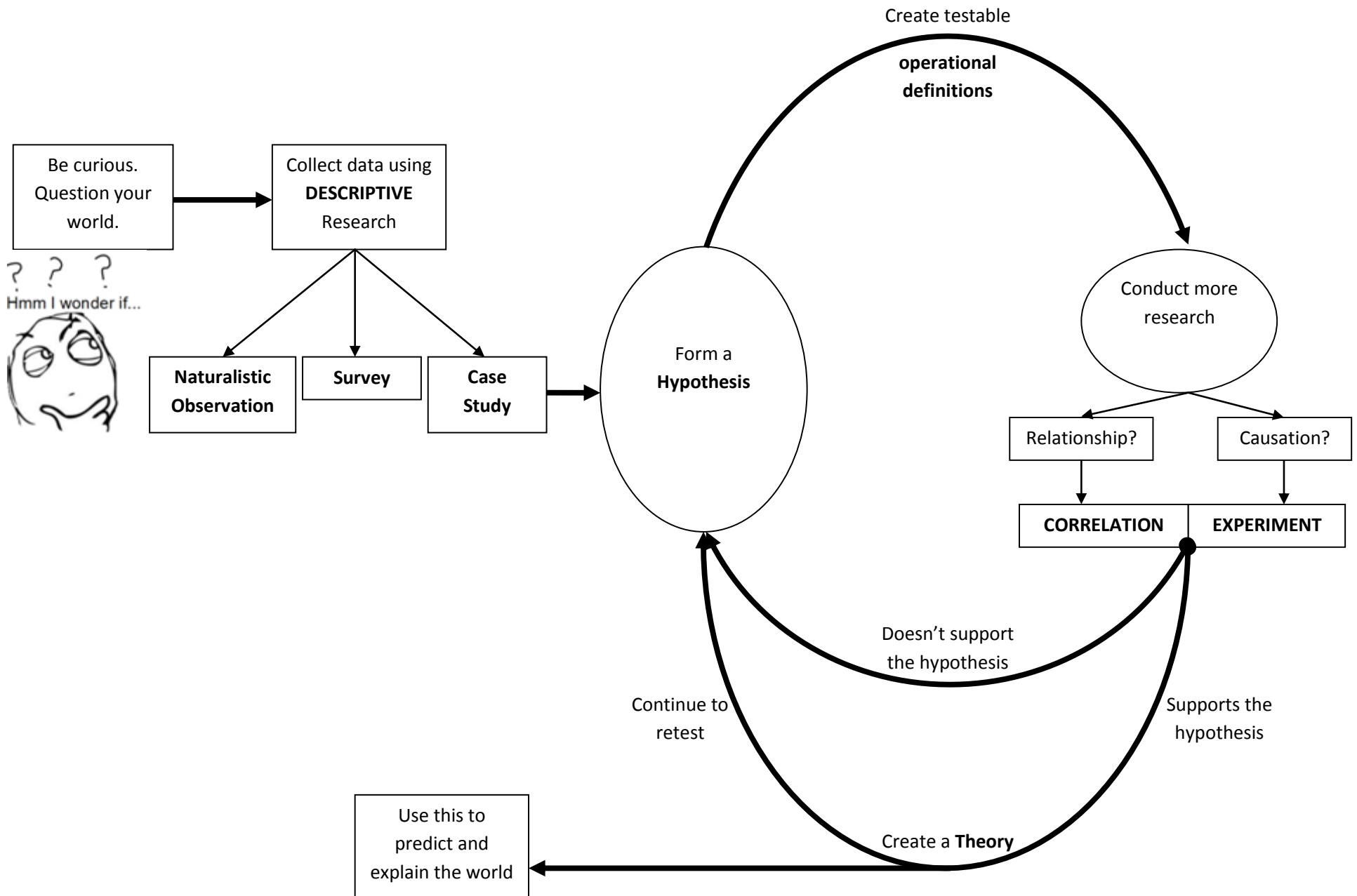
■ **Psych Immersions?**
(Connections to something else in psychology,
another text, or your world.)

■ **Critical questions from
the reading?**

Essential Questions

- EQ 1-3: How do psychologists use the scientific method to study behavior and mental processes?
- EQ 1-4: What are the strengths and weaknesses of the different research methods?
- EQ 1-5: How do psychologists draw appropriate conclusions about behavior from research?

Scientific Method





Be curious!

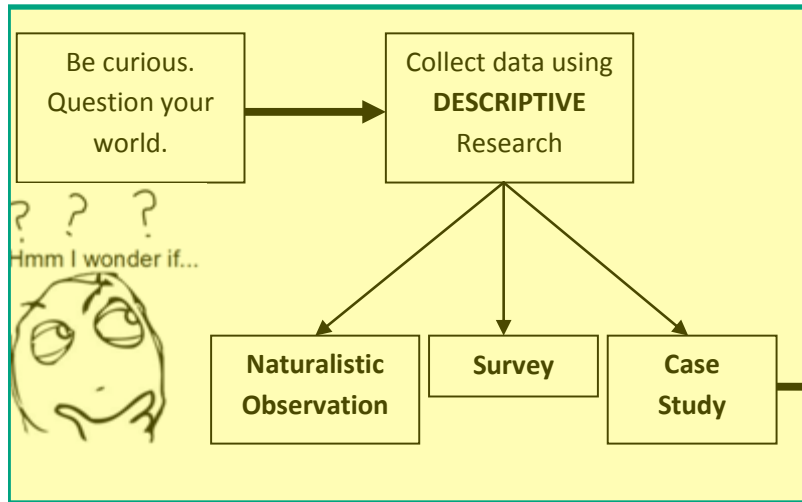
1. Does involvement in HS athletics improve academic performance?
2. Does excessive texting impede face-to-face relationships?
3. Does personality influence musical preferences?
4. Do ads portraying unrealistic body types reduce the self-image of the viewer?
5. Does student consumption of caffeine in the morning improve first period grades?
6. Does gamification of the classroom improve increase student engagement?



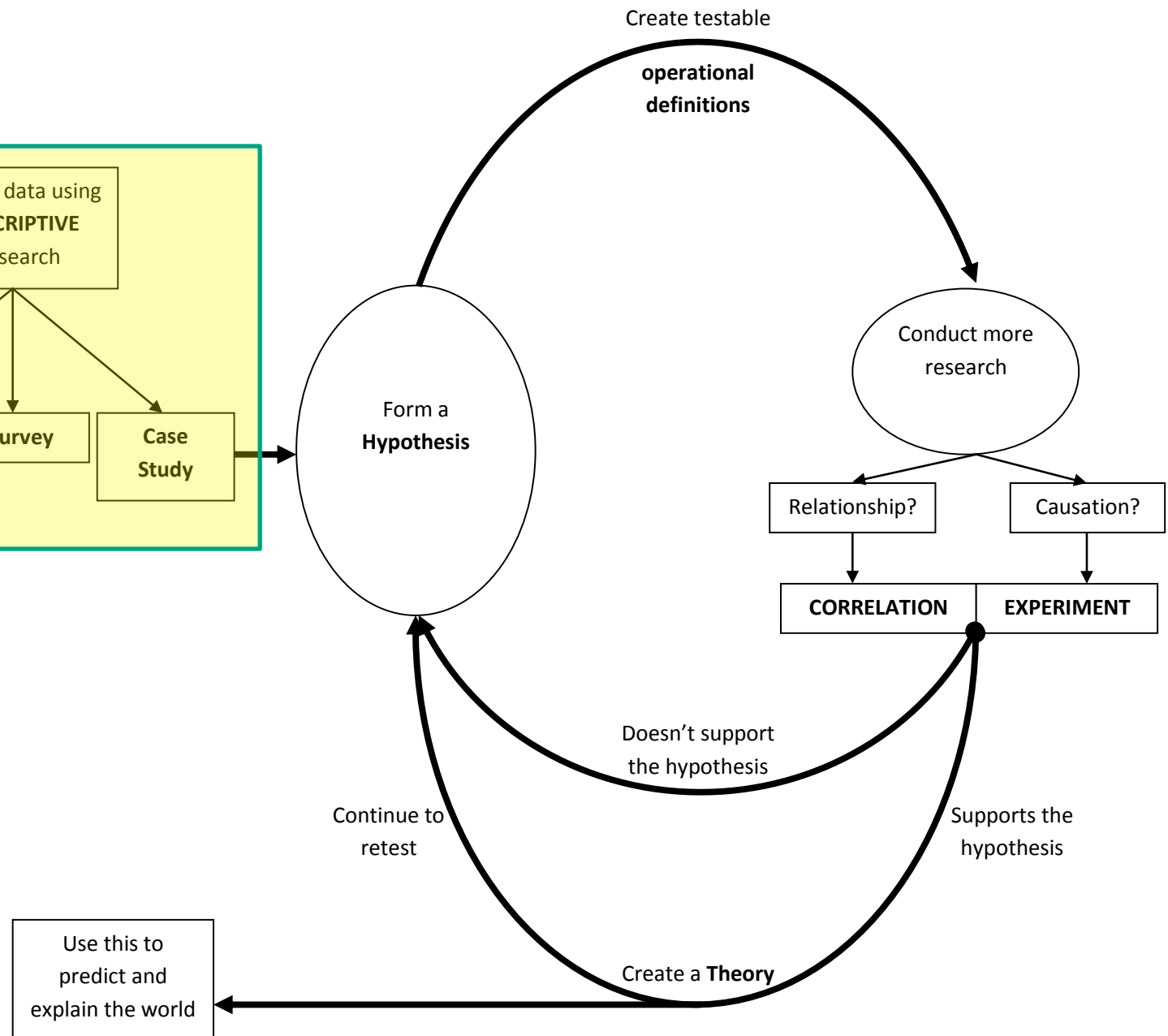
Be curious!

7. Does a community service requirement positively or negatively impact student opinions of community service?
8. Does HR increase communication in a large suburban HS?
9. Do teacher websites improve student performance in class?
10. Does focus on minor rules (flip-flops and hats) reduce student adherence to major rules (insubordination or class cutting)?

Scientific Method



Pick a question
and let's see how
we could use
descriptive
research
techniques to
research it.



Research Methods

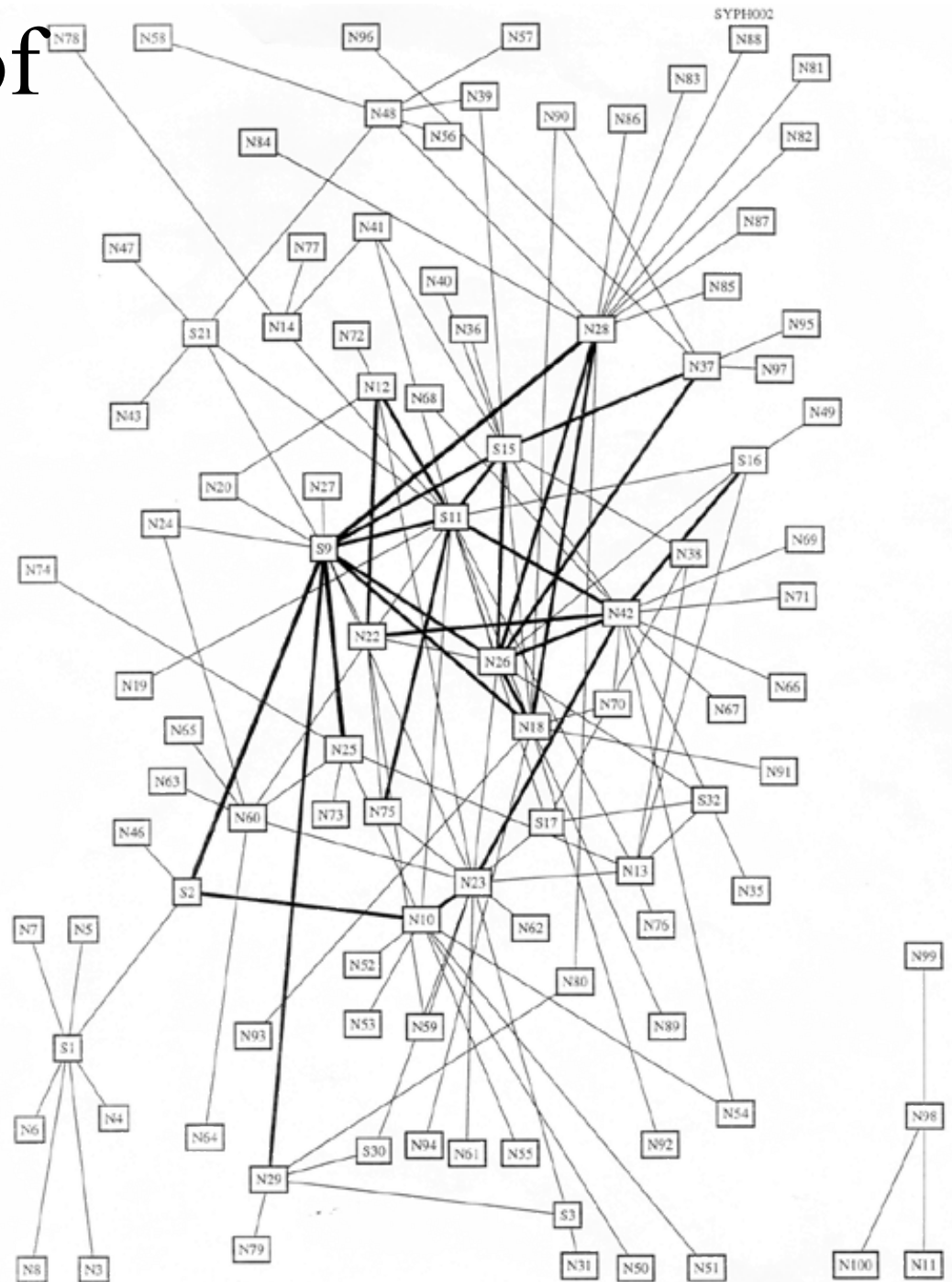
1. **Description** – gathering evidence about A and B
2. Correlation – A and B are related
3. Experiment – A causes B

Descriptive Research Methods in Psychology

- Case Studies
 - Detailed in-depth description and analysis of one or a few people
 - Observation, scores on psychological tests, interviews etc.
 - Prominent in psychology
 - Piaget used this to develop his theory of cognitive development
 - Takes advantage of nonreplicable situations
 - Observer bias is a problem
 - Unable to make generalizations past person being studied

The Lost Children of Rockdale County

- Studied a Syphilis epidemic at a high school in an affluent suburb of Atlanta





CREDIT TOTALS

	English	French	Math	Science	Geog.	History	Arts	Phys. Ed.	Civics	areer St	Group 1	Group 2	Group 3	Comp.	Elective
Req	4.00	1.00	3.00	2.00	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.00	1.00	18.00	12.00
Earn	2.00	1.00	1.00	2.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.50	10.50	1.50

Ministry Number: 041-080-193

Homeroom: MPM2D0-01 - Pawlik, Faye

Gender: F

TAP:

Birthdate: 1988 OCT 20

Mentor:

Date of Entry: 2002 SEP 03

Community Service Hours:

First Language: English

Literacy Test: Not Completed

Attendance To Date: Abs: 2.5 Lates: 0.0

Literacy Test Date:

Diploma/Certificate Earned

OSSD(1999)

COMPULSORY CREDITS

COMPLETED COURSES

Course	Req. Area	Mark	Earned Credit	Comp. Credit	Ovr. Repeats	TRANSCRIPT		
						Eligible	Credit	Date
ADA100	Arts	84	0.50	0.50		x	0.5	2002 11
AVI100	Arts	87	0.50	0.50		x	0.5	2003 01
AVI200	Group 2	81	1.00	0.50		x	1	2004 01
BTT100	Group 2	95	0.50	0.50		x	0.5	2003 04
CGC1D0	Geog.	82	1.00	1.00		x	1	2003 01
ENG1D0	English	88	1.00	1.00		x	1	2003 06
ENG2D0	English	88	1.00	1.00		x	1	2004 01
FSF1D0	French	88	1.00	1.00		x	1	2003 01
MPM1D0	Math	80	1.00	1.00		x	1	2003 01
PPL10F	Phys. Ed.	90	1.00	1.00		x	1	2003 06
SNC1D0	Science	85	1.00	1.00		x	1	2003 06
SNC2D0	Science	84	1.00	1.00		x	1	2004 01
TTI100	Group 3	80	0.50	0.50		x	0.5	2003 06

* Indicates a substituted course

CURRENT YEAR COURSES AND ACHIEVEMENT

Course/Section	Att.	Earn.	1	2	4	F
AVI200-01	1.00	1.00	82	81		81
			90	88		88
			85	88		88
			95	84		84

ELECTIVE CREDITS

Course	Mark	Earned Credit	Ovr. Repeats	TRANSCRIPT		
				Eligible	Credit	Date
FSF2D0	88	1.00		x	1	2004 01

NEXT YEAR COURSES

Course/Section	Req/ Schd	Att. Credit Value
AVI300	R	1.00
ENG3U0	R	1.00
ETC3M0	R	1.00
FSF3U0	R	1.00
HSP3M0	R	1.00
MCF3M0	R	1.00
PPL3O0	R	1.00
SBI3U0	R	1.00

Research Methods in Psychology

- Naturalistic Observation
 - Systematic observation in natural setting
 - The main drawback is observer bias
 - (expectations or biases of the observer that might distort or influence the interpretation of what was observed.)
 - Observing and recording behavior of animals in the wild, to recording self-seating patterns in lunch rooms in a multiracial school constitutes naturalistic observation.
 - Not replicable so you can't generalize



Research Methods in Psychology

- Surveys
 - A technique for ascertaining the self-reported attitudes, opinions or behaviors of people usually by questioning a representative, random sample of people.
 - Questionnaires or interviews, such as polls prior to an election
 - Can generate a lot of information for a fairly low cost
 - Questions must be constructed carefully so as to not elicit socially appropriate answers

Survey

Wording Effect

Wording can change the results of a survey.

Q: Should cigarette ads and pornography be allowed on television? (not allowed vs. forbid)

Survey

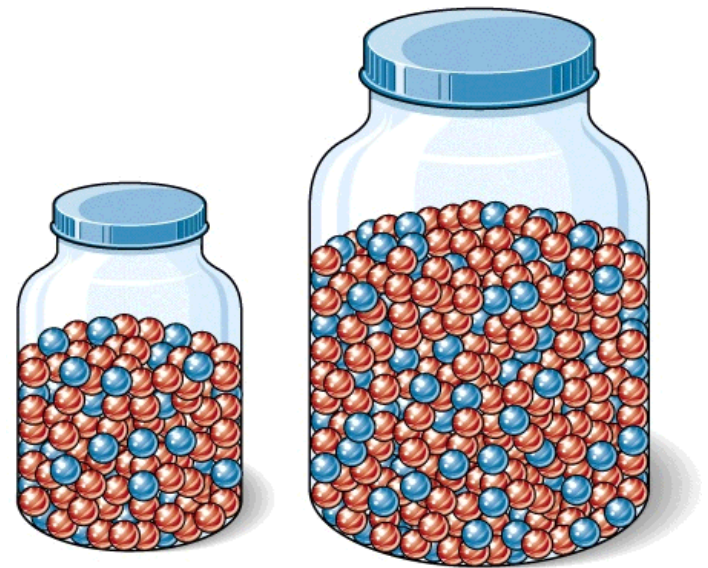
False Consensus Effect

A tendency to overestimate the extent to which others share our beliefs and behaviors.

Survey

Random Sampling

From a population if each member has an equal chance of inclusion into a sample, we call that a random sample (unbiased). If the survey sample is biased, its results are questionable.

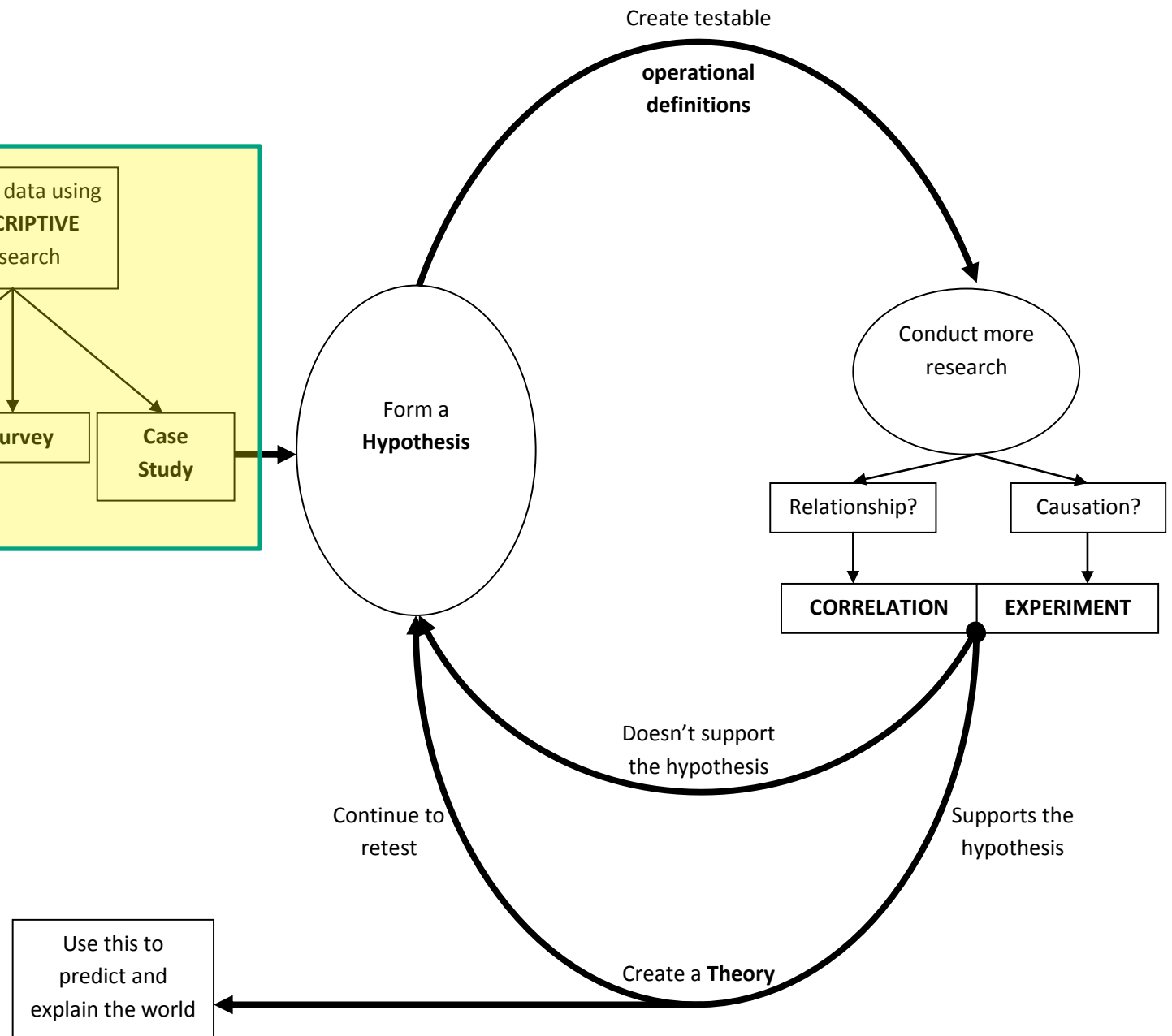
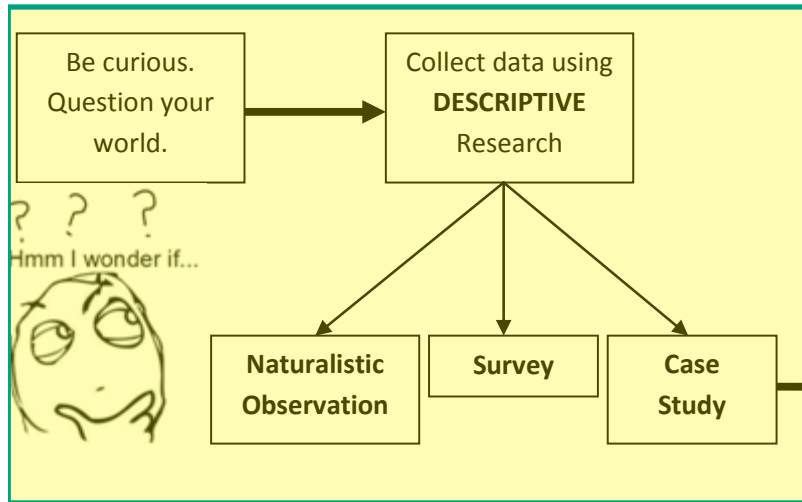


The fastest way to know about the marble color ratio is to blindly transfer a few into a smaller jar and count them.

Comparison

Research Method	Advantages	Limitations
Naturalistic Observation	<ul style="list-style-type: none">• More accurate than reports after the fact• Behavior is more natural	<ul style="list-style-type: none">• Observer can alter behavior• Observational Bias• Cannot be generalized
Case Studies	<ul style="list-style-type: none">• Depth• Takes advantage of circumstances that could not be coordinated in an experiment	<ul style="list-style-type: none">• Not representative• Time consuming and expensive• Observational Bias
Surveys	<ul style="list-style-type: none">• Immense amount of data• Quick and inexpensive	<ul style="list-style-type: none">• Sampling biases can skew results• Bad Questions can corrupt data• Accuracy depends on the ability and willingness of the participants.

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