# Cheatography

# Research Design Cheat Sheet by faminconnue (faminconnue) via cheatography.com/178871/cs/38737/

#### purposes of emprirical research

1. exploration: first orientation on new research topic

2. description: describe observations

3. explanation: find out why these observations occur

## objects of study

who (or what) is social research about?

- groups (e.g. families)
- groups (e.g. larines)
- organizations (e.g. faculties, student associations)

social interactions

- social artifacts

### cross sectional + longitudinal research

*cross-sectional research*: study based on observations representing a single point in time, a cross-section of a population → make the most conditional claims for

causal explantion, while still able to corroborate/falsify hypotheses

*longitudinat*. a study design involving the collection of data at different points in time → repeated cross-sectional with different

people: trend studies

→ repeated with the same set of people; panel studies

#### compare means



## Explanatory research

Explanatory research implies causal relationships between concepts

- explanations can be:
- idiographic: complete picture of all causes
- for observations, using all relevant factors - nomothetic: general understanding of a

class of phenomena, using a small number of relevant causal factors

 $\rightarrow$  the latter contain the hardest criteria for causality

#### types of explanatory results

- crosstabs and compare means
- correlation
- regression

criteria nomothetic causality:

- a statistical correlation: changes in one

characteristic are associated with changes in the other

- time order: the cause takes place before the effect
- nonspuriousness
- → Spurious relationship: a coincidental

statistical correlation between two variables

- is caused by a
- third variable

#### regression

= the most popular explanatory statistic there are different types of regression, but the most common is *linear* 

it is both a *biveriate* and a *multivariate* analysis

\*bivariate: used when the data set contains two variables and researchers aim to undertake comparisons between the two data set

\*multivariate: used when there are more than two variables in the data set.

## crosstabs



#### **Research Design**

research designs make the strongest claims for causal exlanation.

time is a relevant dimension

the empiricle cycle consists of the following steps:

- 1. problem
- research problem: what do you want to know?
- purpose: why do you want to know?

#### 2. theory

- what's already known based on previous research?
- which concepts are relevant to fix the problem?
- 3. hypotheses:
- concrete expectations based on theory
- deduction: form general theory to testable hypotheses
- 4. **data**: how are you going to fix the problem?
- by whom: subjects of study
- when and where?
- how: choice of method data collection and operationalization?
- 5. data collection: observations
- 6. data processing and analyses
- 7. report results: answer research question
- and connect to theory (induction)

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# correlation

	Correlations		
		v54 how often attend religious services (Q15)	v153 do you justify: homosexualit y (Q44E)
v54 how often attend religious services (Q15)	Pearson Correlation	1	,297**
	Sig. (2-tailed)		,000
	N	54045	51964
v153 do you justify: homosexuality (Q44E)	Pearson Correlation	,297	1
	Sig. (2-tailed)	,000	
	N	51964	52287



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