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?

- individuals
- groups (e.g. families)
- 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

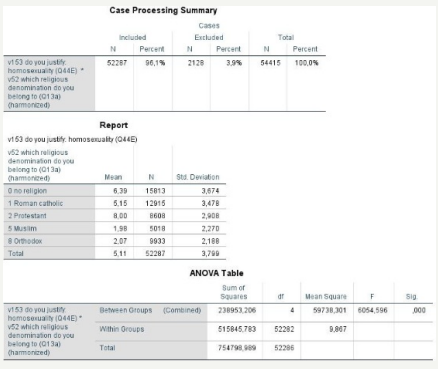
→ make the most conditional claims for causal explantion, while still able to corroborate/falsify hypotheses

longitudinal: 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



Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
v153 do you justify homosexuality (Q44E) * v52 which religious denomination do you belong to (Q13a) (harmonized)	52287	96,1%	2128	3,9%	54415	100,0%

Report

v153 do you justify homosexuality (Q44E)

v52 which religious denomination do you belong to (Q13a) (harmonized)	Mean	N	Std. Deviation
0 no religion	6,39	15813	3,674
1 Roman catholic	5,15	12915	3,478
2 Protestant	8,00	8608	2,908
5 Muslim	1,98	5018	2,270
8 Orthodox	2,07	9933	2,188
Total	5,11	52287	3,799

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
v153 do you justify homosexuality (Q44E) * v52 which religious denomination do you belong to (Q13a) (harmonized)	Between Groups	(Combined)	238953,206	4	59738,301	6054,596	,000
	Within Groups		515845,783	52282	9,867		
	Total		754798,989	52286			

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

→ 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

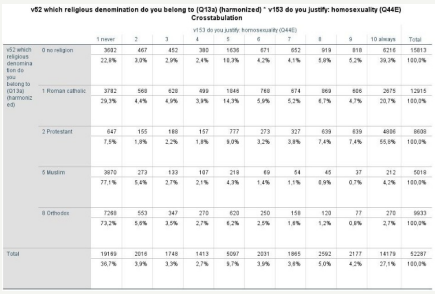
there are different types of regression, but the most common is *linear*

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



v52 which religious denomination do you belong to (Q13a) (harmonized) * v153 do you justify: homosexuality (Q44E) Crosstabulation

		v153 do you justify: homosexuality (Q44E)										
		1 never	2	3	4	5	6	7	8	9	10 always	Total
v52 which religious denomination do you belong to (Q13a) (harmonized)	0 no religion	3082	467	452	380	1636	671	652	919	818	6216	15813
		22,8%	3,0%	2,9%	2,4%	10,3%	4,2%	4,1%	5,8%	5,2%	39,3%	100,0%
	1 Roman catholic	3782	568	620	493	1846	769	874	869	686	2675	12915
		29,3%	4,4%	4,9%	3,9%	14,3%	5,9%	5,2%	6,7%	4,7%	20,7%	100,0%
	2 Protestant	647	155	188	157	777	273	327	639	639	4886	8608
		7,5%	1,8%	2,2%	1,8%	9,0%	3,2%	3,8%	7,4%	7,4%	55,9%	100,0%
	5 Muslim	3870	273	133	107	218	69	54	45	37	212	5018
		77,1%	5,4%	2,7%	2,1%	4,3%	1,4%	1,1%	0,9%	0,7%	4,2%	100,0%
	8 Orthodox	7268	553	347	270	620	250	158	120	77	270	9933
		73,2%	5,6%	3,5%	2,7%	6,2%	2,5%	1,6%	1,2%	0,8%	2,7%	100,0%
Total		19169	2016	1748	1413	5097	2031	1965	2592	2177	14179	52287
		36,7%	3,9%	3,3%	2,7%	9,7%	3,9%	3,8%	5,0%	4,2%	27,1%	100,0%

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: homosexuality (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

**. Correlation is significant at the 0.01 level (2-tailed).

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