Lecture 04: Finding your Psychology

MeSearch or Research?

Dr. Gordon Wright

g.wright@gold.ac.uk

October 9, 2023

Key topics today

The week ahead (week 4)

- Personal Tutor Meeting about Mini-Dissertations - ooops
- Critical Proposal due next week (week 5)
- Design & Analysis Quiz due next week (week 5)
- Research as a human enterprise
- Lab preview - Keep pressing on with Critical Proposal (due week 5)
  - Try to nail down your variables and your design ON THE PAGE!

Personal Tutor Meeting Week 4

This week (week 4) your PT session is all about your Mini-Dissertation

Please familiarise yourself with well-being services available in college

https://www.gold.ac.uk/students/wellbeing/wellbeing-service/

Any Questions?

Let your freak flag fly!
{.background “red”}

Whaaa?

You can have a sepremely individual ‘take’ on Psychology?

The Psychology you need or want for the future?

A career path with hundreds of different routes?

or is it more personal than that?

Do you need a ‘passion’ in Psychology?

We (staff) talk about this sometimes.

Is it critical that you find a topic of interest to you?

Does it help? Does it hinder?

Is it possible to be a Psychologist without a personal stake?

It’s not all about what you do.
I want you to think about HOW you do it.

Around us a crisis is unfolding

Science has been in a “replication crisis” for a decade. Have we learned anything?

Bad papers are still published. But some other things might be getting better.

By Kelsey Piper | Oct 14, 2020, 12:20pm EDT

Psychology is grossly misunderstood

Public Skepticism of Psychology

Why Many People Perceive the Study of Human Behavior as Unscientific

Scott O. Lilienfeld
Emory University

Next week

The Replication Crisis and our ongoing response - Open Science

The practice of Psychology we encourage in you!

Research & me-search

PLOS ONE

RESEARCH ARTICLE

When research is me-search: How researchers' motivation to pursue a topic affects laypeople's trust in science

Marlene Sophie Altenmüller*, Leonie Lucia Lange, Mario Gollwitzer

Department of Psychology, Ludwig-Maximilians-Universität München, Munich, Germany

* marlene.altenmueller@psy.lmu.de

(altenmuller2021?)

Reflexivity

Reflexivity and the psychologist

Reflexivity generally refers to the examination of one's own beliefs, judgments and practices during the research process and how these may have influenced the research.

An integral part of the Qualitative 'tradition'

(morawski2005?)

Inclusive Research

Inclusive research is a term that was coined in the early twenty-first century to embrace participatory and emancipatory approaches to research with people with learning/intellectual disabilities (Walmsley, 2001)

Inclusive research embraces participatory and emancipatory approaches to research.

Its characteristics are that it:

· Is owned (not necessarily initiated) by lay people
· Furthers the interests of lay people, researchers are on their side
· Is collaborative
· Enables lay people to exercise control over process and outcomes
· Produces outputs that are accessible.

context

Research situated within the wider rights movement.

"Nothing about us without us" (Aspis, 2000).

a slogan of the disabled people's movement, has been applied to research as well as other areas.

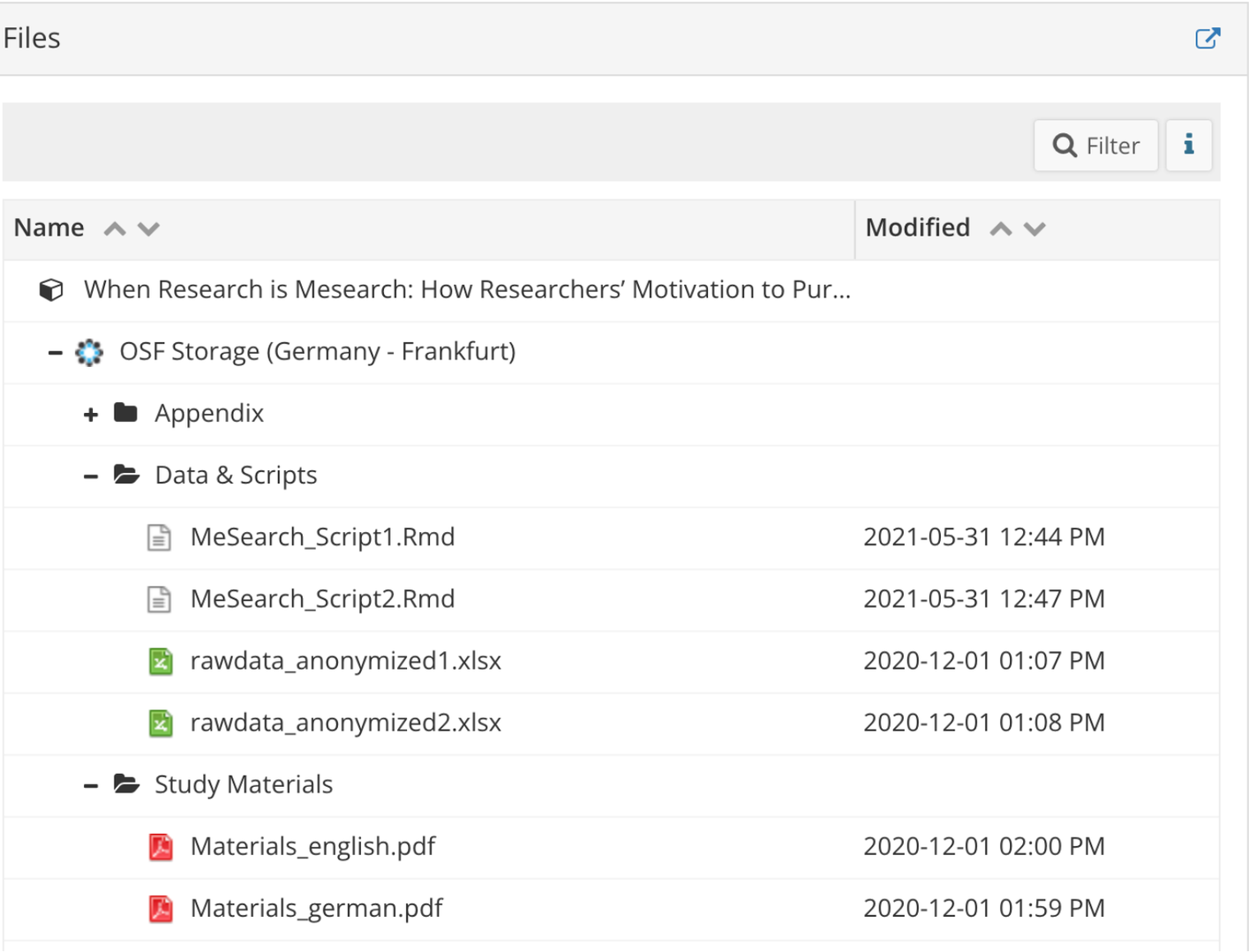
"exclusivity not only touches but also contorts and diminishes all aspects of psychological science" (Ledgerwood et al., 2022, p.2).

(ledgerwood2022?)

OSF (Open Science Foundation)

OSF | When Research is Mesearch: How Researchers' Motivation to Pursue a Topic Affects Laypeople's Trust in Science https://osf.io/phfq3/

Open Data and Open Materials



Open Data

OSF HOME

When Research is Mesearch: How Researchers' Motivation to P...

rawdata_anonymized1.xlsx

Rohdaten_MesSarch1

Show rows with cells including:

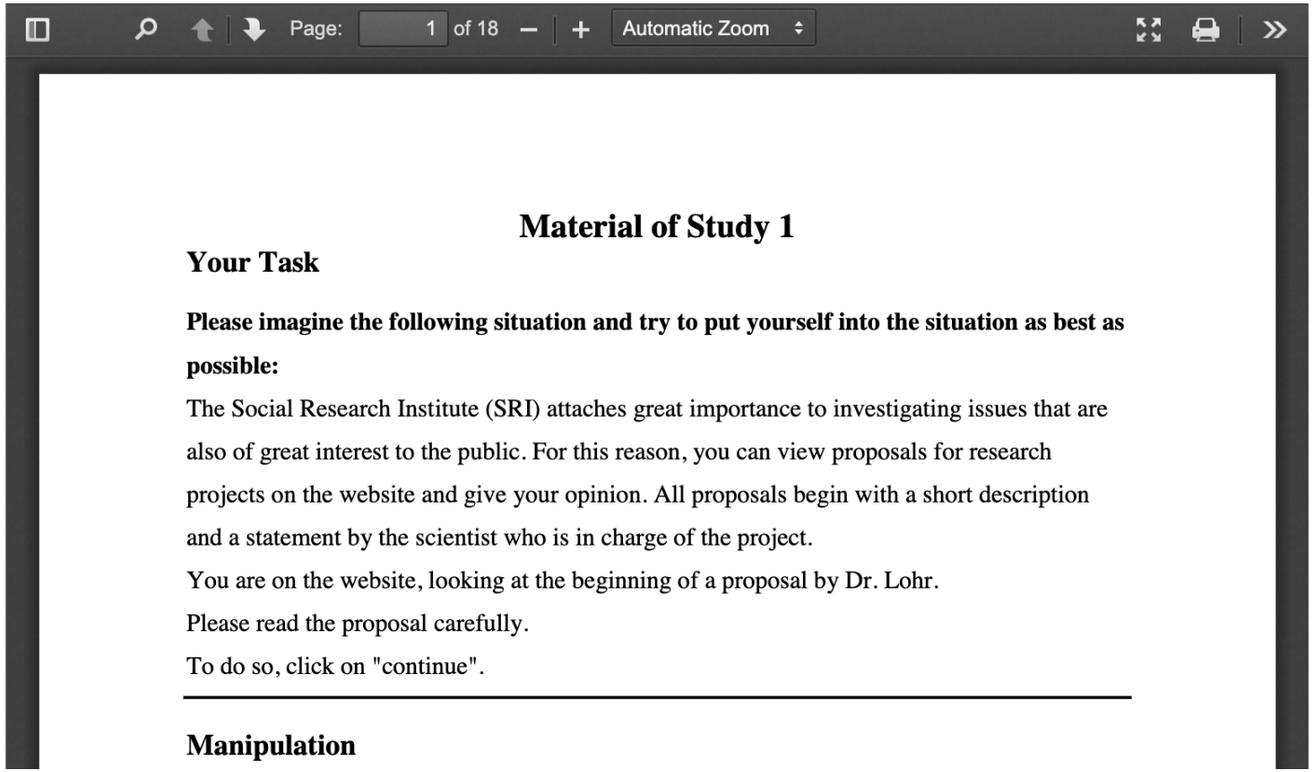
CASE	SERIAL	REF	QUESTNNR	MODE	STARTED	A002	V101_01	V101_02	V101_0
85		wa	base	interview	2020-04-22...	1	5	5	5
87		wa	base	interview	2020-04-22...	1	5	5	5
89		wa	base	interview	2020-04-22...	1	3	2	2
90		wa	base	interview	2020-04-22...	1	4	5	4
98		wa	base	interview	2020-04-22...	1	5	5	5
101		wa	base	interview	2020-04-22...	1	6	5	5
102		wa	base	interview	2020-04-22...	1	4	4	4
103		wa	base	interview	2020-04-22...	1	6	5	4
104		wa	base	interview	2020-04-22...	1	6	6	6
107		wa	base	interview	2020-04-22...	1	6	5	5
108		wa	base	interview	2020-04-22...	1	4	5	4

Open Materials

OSF**HOME**

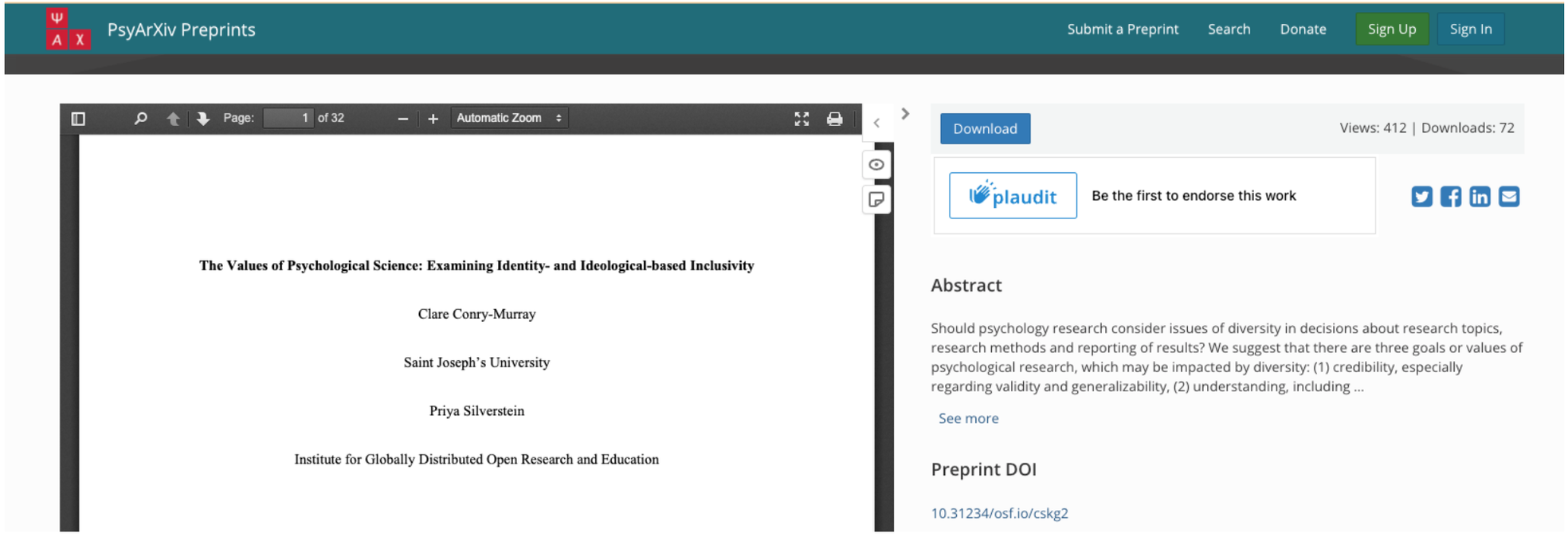
When Research is Mesearch: How Researchers' Motivation to P...

Materials_english.pdf



Psyarxiv

(conry-murray2022?)



Questions?

Lab activities

Keep working!

Formalise your individual design

2x2 Design		IV 1	
		IV1: Level 1	IV1: Level 2
IV 2	IV2: Level 1	dv	dv
	IV2: Level 2	dv	dv

More specific

2x2 Design		Time of Day	
		Morning	Afternoon
Caffeine	Some Caffeine	dv	dv
	No Caffeine	dv	dv

This is my design

Everything I will need to know about my study
Andy Student (33412345)

IV(A)	
A1	Level 1
A2	Level 2
Type	Between/Within?

IV(B)	
B1	Level 1
B2	Level 2
Type	Between/Within?

The Relationship between IV(A), IV(B) and DV			
		Independent Variable B	
		B1	B2
Independent Variable A	A1	DV for A1,B1	DV for A1,B2
	A2	DV for A2,B1	DV for A2,B2

This is my design	
?	Between Groups
?	Repeated Measures
?	Mixed

Effect Sizes	
IV(A)	?
IV(B)	?
A*B	?

Dependent Variable	
Name	My Dependent Variable
Measurement	How my DV is measured
Type	Continuous

Sample Size Required	
IV(A)	?
IV(B)	?
A*B	?

Hypotheses	
H1	Main effect of IV(A) on DV
H2	Main effect of IV(B) on DV
H3	Interaction effect of IV(A) * IV(B) on DV

Notation

We use a notation system to refer to these designs:

2x2 = Two-way ANOVA. There are two IVS, the first IV has two levels, the second IV has 2 levels. There are a total of 4 conditions, 2x2 = 4.

2x3 = Two-way ANOVA. There are two IVs, the first IV has two levels, the second IV has three levels. There are a total of 6 conditions, 2x3 = 6

4x4 = Two-way ANOVA. There are two IVs, the first IV has 4 levels, the second IV has 4 levels. There are a total of 16 conditions, 4x4=16

2x3x2 = Three-way ANOVA.There are a total of three IVs. The first IV has 2 levels. The second IV has 3 levels. The third IV has 2 levels. There are a total of 12 conditions. 2x3x2 = 12.

Review

Crump, M. J. C., Navarro, D. J., & Suzuki, J. (2019, June 5). Answering Questions with Data (Textbook): Introductory Statistics for Psychology Students. https://doi.org/10.17605/OSF.IO/JZE52

CC BY SA 4.0

https://crumplab.com/statistics/07-ANOVA.html

https://crumplab.com/statistics/10-MixedANOVA.html#x2-designs

3 ‘flavours’ of 2x2 ANOVA

2bx2b - Between-subjects/Factorial ANOVA

2wx2w - Within-subject/Repeated Measures ANOVA

2bx2w or **2wx2b** - Mixed ANOVA

You will be using one of these (all supported by SPSS Exercises 1 & 2)

JAMOVI is a reasonable alternative to SPSS (R is even better - much more value as a skill)

The 3 effects possible in a 2x2 ANOVA

Main effect of IV1

Main effect of IV2

Interaction of IV1*IV2

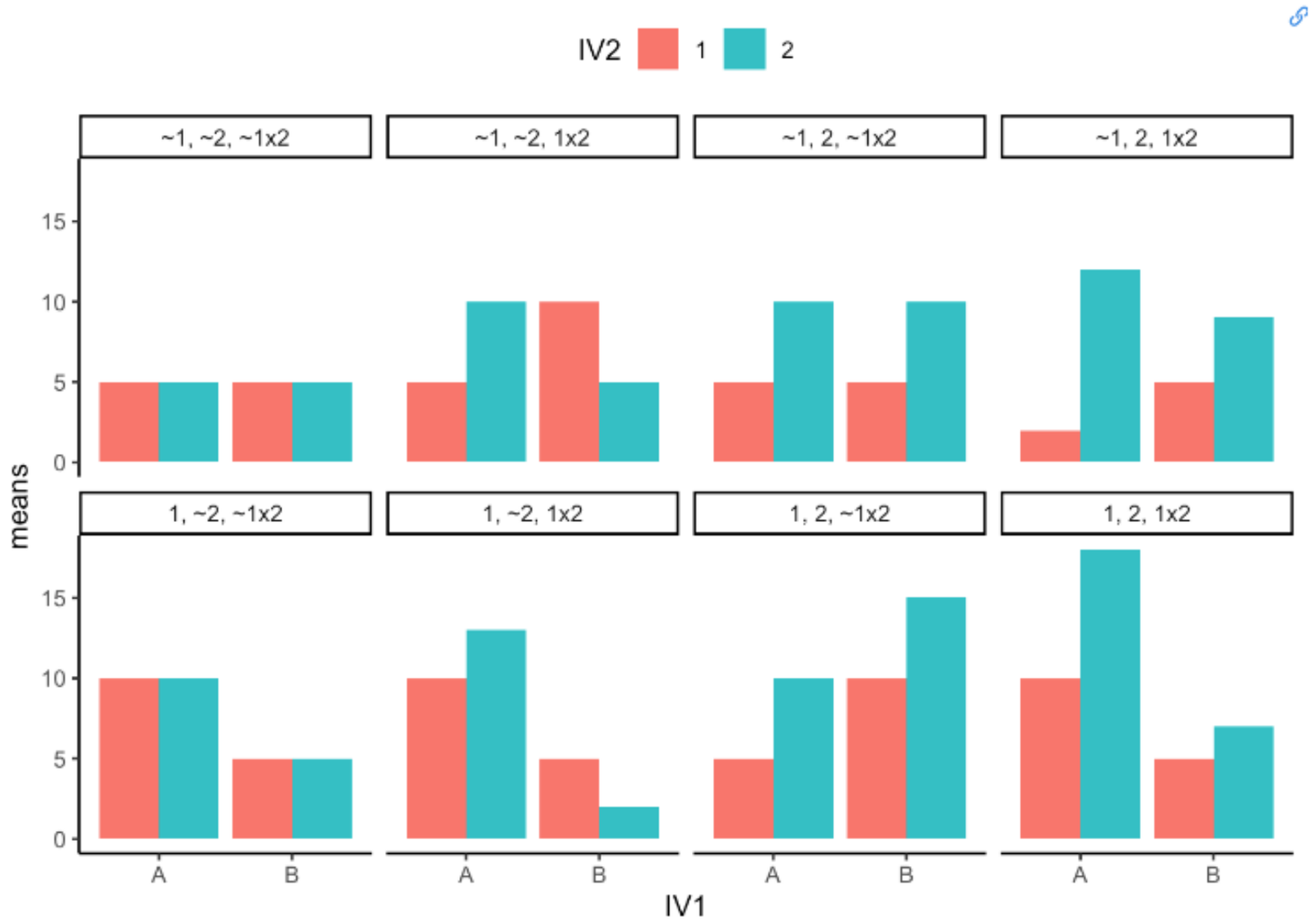
therefore 8 possible ‘outcomes’ of a 2x2 ANOVA

- no IV1 main effect, no IV2 main effect, no interaction
- IV1 main effect, no IV2 main effect, no interaction
- IV1 main effect, no IV2 main effect, interaction
- IV1 main effect, IV2 main effect, no interaction
- IV1 main effect, IV2 main effect, interaction
- no IV1 main effect, IV2 main effect, no interaction
- no IV1 main effect, IV2 main effect, interaction
- no IV1 main effect, no IV2 main effect, interaction

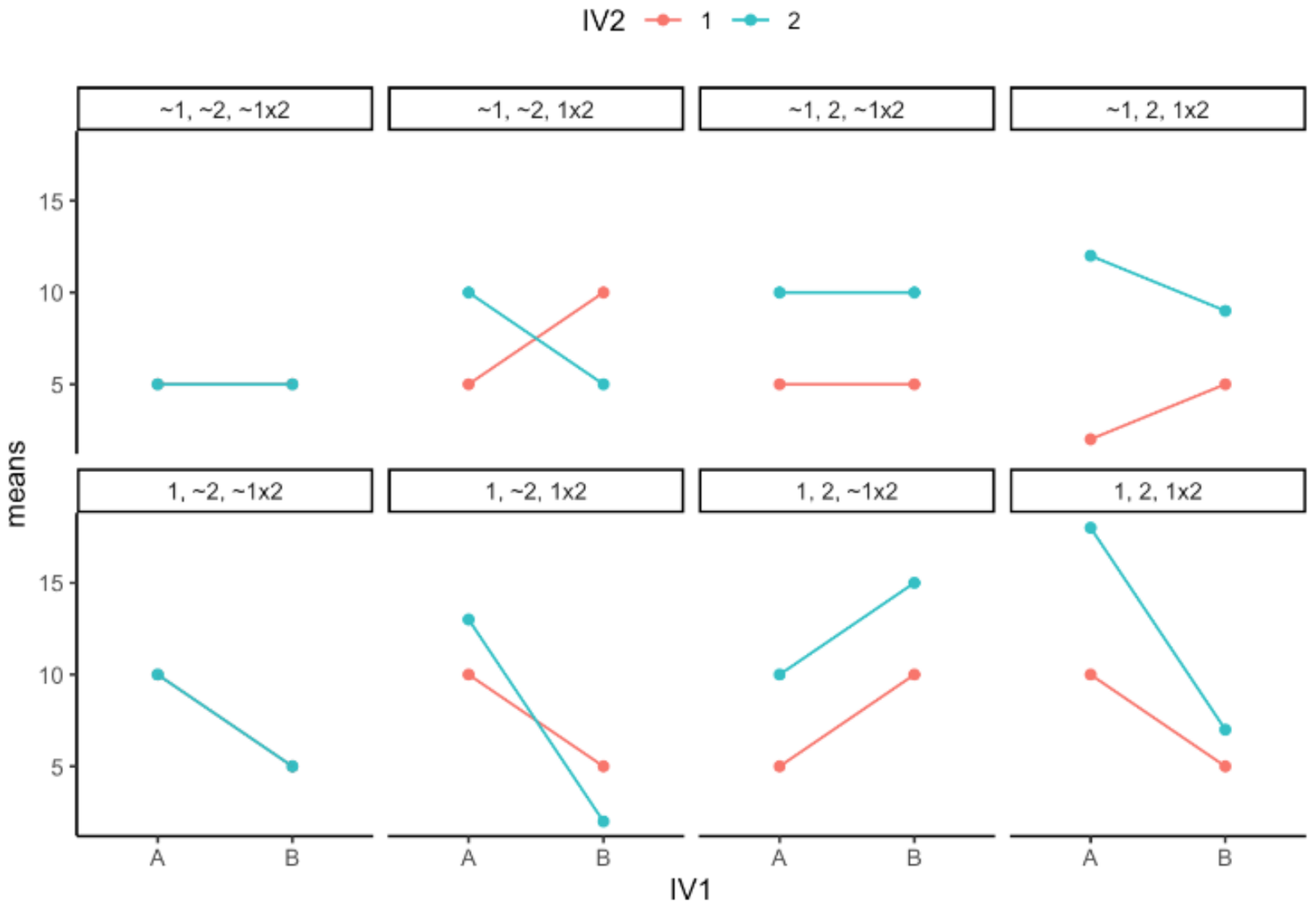
graph key

- 1 = there was a main effect for IV1.
- ~1 = there was **not** a main effect for IV1
- 2 = there was a main effect for IV2
- ~2 = there was **not** a main effect of IV2
- 1x2 = there was an interaction
- ~1x2 = there was **not** an interaction

Bar charts


IV2
1
2
~1, ~2, ~1x2
~1, ~2, 1x2
~1, 2, ~1x2
~1, 2, 1x2
1, ~2, ~1x2
1, ~2, 1x2
1, 2, ~1x2
1, 2, 1x2
means
0
5
10
15
A
B
IV1

Line plots


IV2
1
2
~1, ~2, ~1x2
~1, ~2, 1x2
~1, 2, ~1x2
~1, 2, 1x2
1, ~2, ~1x2
1, ~2, 1x2
1, 2, ~1x2
1, 2, 1x2
means
15
10
5
A
B
IV1

References

Walmsley, J. (2001). Normalisation, Emancipatory Research and Inclusive Research in Learning Disability. *Disability & Society*, *16*(2), 187–205. https://doi.org/10.1080/09687590120035807