



# Lab 03: Critical Proposal

*Targetting your Target Paper*

Dr. Gordon Wright 

*g.wright@gold.ac.uk*

October 10, 2023



# Overview of Lab 03



The objective of today is to immerse yourself in the 'Research Methods' of your Critical Proposal Target Paper

This may seem like an 'academic' exercise now.. but it is not!



# Reading

- Being able to read a single paper carefully and critically is an important skill
- Being able to synthesise multiple papers and appreciate similarities and differences is crucial
- Building on this effort to identify ‘gaps’ or ways to build on strengths



# Today



**Think more carefully about each of the following aspects and jot down some ideas for your Critical Proposal:**

1. Design of the study
2. Participants and recruitment
3. Materials
4. Procedure

**And you will need to identify an Effect Size (again) - why not highlight it now!**



# Remember



You can show your Lab Tutor the paper you propose to use for your Critical Proposal... DO SO!

It needs to be a peer-reviewed empirical paper from the Psychology literature that presents a quantitative study, includes methods (Design, Participants, Materials) and analyses the data. Failure to follow these rules will impact your mark.



# Design Schematic

You will be required to complete elements of this diagram and include it in your Critical Proposal. How much of it could you think about completing now? (The template can be downloaded on the VLE in the Coursework Information section, and edited at [www.draw.io](http://www.draw.io))

| Everything I will need to know about my study<br>Andy Student (33412345)   |   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
|--|---|------------------------|--------------|--------------------|---------|------------|-----------------------|-------------|----------------------------|---|----------------------------|---|---|----------------------|--|-------|---|------------------------|---|-----|----|--|--|------------------------|----|--------------|--------------|----|--------------|--------------|---|--|-------------------|--|---|----------------|---|-------------------|---|-------|
| <table border="1"><thead><tr><th colspan="2">IV(A)</th></tr></thead><tbody><tr><td>A1</td><td>Level 1</td></tr><tr><td>A2</td><td>Level 2</td></tr><tr><td>Type</td><td>Between/Within?</td></tr></tbody></table>  |   | IV(A)                  |              | A1                 | Level 1 | A2         | Level 2               | Type        | Between/Within?            | <table border="1"><thead><tr><th colspan="4">The Relationship between IV(A), IV(B) and DV</th></tr><tr><td colspan="2" rowspan="3"></td><th colspan="2">Independent Variable B</th></tr><tr><th>B1</th><th>B2</th></tr></thead><tbody><tr><td colspan="2"></td></tr><tr><td rowspan="2">Independent Variable A</td><td>A1</td><td>DV for A1,B1</td><td>DV for A1,B2</td></tr><tr><td>A2</td><td>DV for A2,B1</td><td>DV for A2,B2</td></tr></tbody></table> |                            | 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 | <table border="1"><thead><tr><th colspan="2">This is my design</th></tr></thead><tbody><tr><td>?</td><td>Between Groups</td></tr><tr><td>?</td><td>Repeated Measures</td></tr><tr><td>?</td><td>Mixed</td></tr></tbody></table> |  | This is my design |  | ? | Between Groups | ? | Repeated Measures | ? | Mixed |
| IV(A)  |   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| A1   | Level 1                                   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| A2   | 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                                     |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| <table border="1"><thead><tr><th colspan="2">IV(B)</th></tr></thead><tbody><tr><td>B1</td><td>Level 1</td></tr><tr><td>B2</td><td>Level 2</td></tr><tr><td>Type</td><td>Between/Within?</td></tr></tbody></table>  |   | IV(B)                  |              | B1                 | Level 1 | B2         | Level 2               | Type        | Between/Within?            |   |                            | <table border="1"><thead><tr><th colspan="2">Effect Sizes</th></tr></thead><tbody><tr><td>IV(A)</td><td>?</td></tr><tr><td>IV(B)</td><td>?</td></tr><tr><td>A*B</td><td>?</td></tr></tbody></table>         |   | Effect Sizes         |  | IV(A) | ? | IV(B)                  | ? | A*B | ?  |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| IV(B)  |   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| B1   | Level 1                                   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| B2   | Level 2                                   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| Type   | Between/Within?                           |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| Effect Sizes   |   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| IV(A)  | ?   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| IV(B)  | ?   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| A*B  | ?   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| <table border="1"><thead><tr><th colspan="2">Dependent Variable</th></tr></thead><tbody><tr><td>Name</td><td>My Dependent Variable</td></tr><tr><td>Measurement</td><td>How my DV is measured</td></tr><tr><td>Type</td><td>Continuous</td></tr></tbody></table>                     |   |                        |              | Dependent Variable |         | Name       | My Dependent Variable | Measurement | How my DV is measured      | Type  | Continuous                 | <table border="1"><thead><tr><th colspan="2">Sample Size Required</th></tr></thead><tbody><tr><td>IV(A)</td><td>?</td></tr><tr><td>IV(B)</td><td>?</td></tr><tr><td>A*B</td><td>?</td></tr></tbody></table> |   | Sample Size Required |  | 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  | ?   |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| <table border="1"><thead><tr><th colspan="2">Hypotheses</th></tr></thead><tbody><tr><td>H1</td><td>Main effect of IV(A) on DV</td></tr><tr><td>H2</td><td>Main effect of IV(B) on DV</td></tr><tr><td>H3</td><td>Interaction effect of IV(A) * IV(B) on DV</td></tr></tbody></table> |   |                        |              |                    |         | 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 |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |
| 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 |                        |              |                    |         |            |                       |             |                            |   |                            |   |   |                      |  |       |   |                        |   |     |    |  |  |                        |    |              |              |    |              |              |   |  |                   |  |   |                |   |                   |   |       |

