

Research Methods

Single Subject Designs



What We Will Cover in This Section

- Overview.
- Issues and Benefits.
- Designs.
- Requirements and assumptions.



What Are They?

Experimental research designs
where $N=1$.



Terminology

- **Baseline (A)**
The preliminary assessment the participant's behavior on the dependent variable. This is usually done over a specific time period.
- **Treatment (B, C, D)**
Assessment of the person's behavior during treatment condition. This is usually done over a specific time period.

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4



Designs



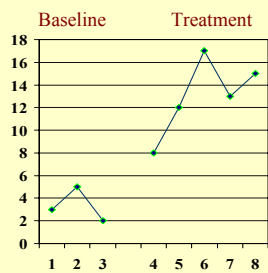
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5

A-B Design

- **Baseline then treatment.**



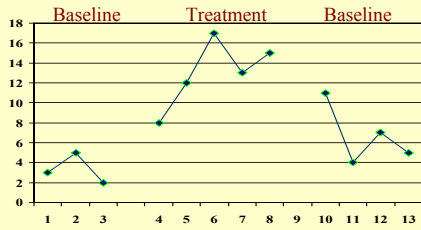
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6



Simple Reversal: A-B-A



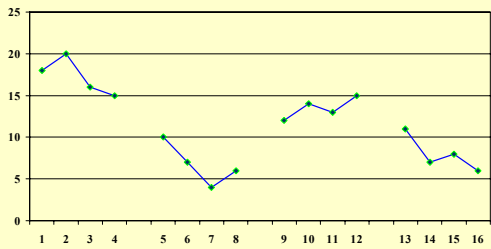
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7



Multiple Independent Variables: A-B-A-C



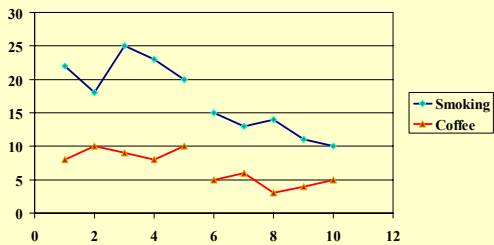
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8



Multiple Baseline



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9



Benefits

1. Ethics of withholding treatment from control groups.
2. Where to find large samples.
3. Individual data may be lost in a group...treated as error.
4. Develop in depth information.

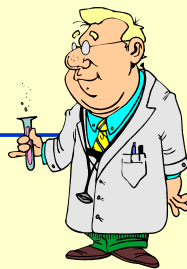


Problems

1. Lack of generalizability.
2. Lack of experimenter control.
3. Time to conduct.



Issues and Considerations



Issue #1: Stable Baseline

- It is important that there be no trend in the baseline otherwise the treatment effect may be obscured.
 - Low variability.
 - Baseline trends.

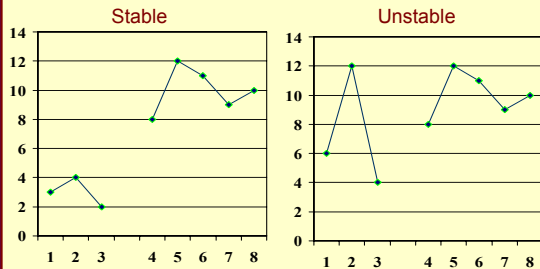
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13



Baseline Variability



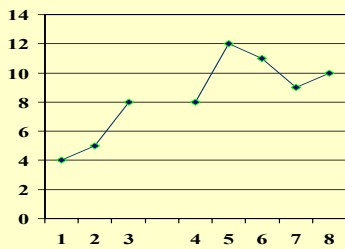
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14



Baseline Trends



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Issue #2: Quantitative Data Analysis

- Eyeball statistics
 - Inspect the graph.
- Issue.
 - How to quantify some data?
- Statistical analysis.

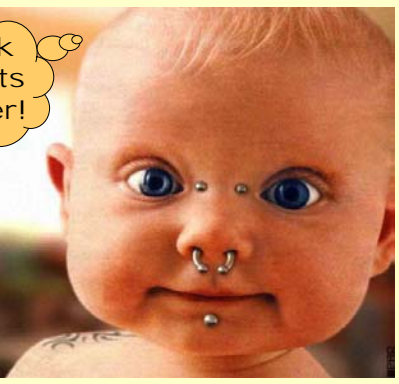
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16



Thank
God, its
all over!



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17





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18