

# Research Processes, Choices & Validity Consequences

**Research Process**       $\longrightarrow$       **Choices Made**       $\longrightarrow$       **Validity Consequences**

<p><b>Participant Selection</b></p> <p>“Who participates in the Study”</p>	<p>Target Population </p> <p>Sampling Frame </p> <p>Selected Sample </p> <p>Data Sample </p>	<p><b>Complete or Purposive</b></p> <p><b>Researcher- or Self-selected</b></p> <p><b>Simple or Stratified</b></p> <p><b>Attrition</b></p>	<p><b>External → Population Validity</b></p>
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<p><b>Participant Assignment*</b></p> <p>“Who participates in what condition(s), when?”</p>	<p><b>Population</b> (Representative or easy to control)</p> <p><b>Setting</b> (Laboratory, Structured or Field)</p> <p><b>Assignment Procedure</b></p> <ul style="list-style-type: none"> <li>• random assignment of individuals by the researcher ☺</li> <li>• random assignment of groups ☺</li> <li>• random assignment – arbitrary conditions by researcher ☹</li> <li>• random assignment – conditions set by “administrator” ☹</li> <li>• self assignment ☹</li> <li>• non-assignment (e.g., natural or pre-existing groups) ☹</li> </ul>	<p><b>Internal → Initial Equivalence Validity</b> (Measured/Subject variables)</p> <p>Choices of “who” and “where” can influence ability to perform proper random assignment</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%; text-align: center;"> <p><b>Research Design</b></p> <table style="margin: auto;"> <tr> <td></td> <td><b>BG</b></td> <td><b>WG</b></td> </tr> <tr> <td><b>True Experiment</b></td> <td>☺</td> <td>☺</td> </tr> <tr> <td><b>Non-experiment</b></td> <td>☹</td> <td>☹</td> </tr> </table> </div>		<b>BG</b>	<b>WG</b>	<b>True Experiment</b>	☺	☺	<b>Non-experiment</b>	☹	☹
	<b>BG</b>	<b>WG</b>									
<b>True Experiment</b>	☺	☺									
<b>Non-experiment</b>	☹	☹									

<p><b>IV Manipulation, Task Completion &amp; Data Collection</b></p> <p>IV manipulation happens first. Sequence and timing of the others can vary greatly.</p>	<p><b>Population</b> (Representative or easy to control)</p> <p><b>Setting</b> (Laboratory, Structured or Field)</p> <p><b>Task/Stimulus</b> (Representative or easy to control)</p> <p><b>Length of manipulation</b> (shorter or longer)</p> <p><b>How IV is manipulated</b></p> <p><b>How DV is measured</b></p>	<p><b>Internal → Ongoing Equivalence Validity</b> (Manipulated/Procedural variables)</p> <p>Choices of “who”, “where”, “what doing”, and “for how long” can influence the ability to maintaining control &amp; get good measures</p> <p><b>External → Population, Setting, Task/Stimulus</b></p> <p>Choices of “who”, “where”, “what doing”, and “for how long” can influence the ability to generalize research findings</p> <p><b>Measurement Validity</b></p> <p>Not all IV manipulations and DV measures are “equally good” – should know “conventions” and “traditions”</p> <p>Choices of “who”, “where”, “what doing”, and “for how long” can influence the ability to perform proper IV manipulations and/or get good measurement of the DV</p>
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<p><b>Data Analysis</b></p>	<p><b>Statistical Conclusion Validity</b></p>
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