Exemplar Study: Two-group Design (Simple Experiment) (Tipping in Restaurants)

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Brief Description: To be used as a supplement to a traditional lecture, this activity makes use of published research to illustrate the two-group design. Discussion starters and in-class activities based on the referenced article are included.

Keywords: Experimental Designs; Two-Group Design (Simple Experiment); Identifying Independent and Dependent Variables

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Instructors:
Instructors should assign the identified article (referenced below) as supplementary readings to provide a foundation for the provided in-class discussions starters and activities.
<table>
<thead>
<tr>
<th><strong>Design</strong></th>
<th>Two-group Design; Between-subjects; Field experiment</th>
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</thead>
<tbody>
<tr>
<td><strong>Subject Area(s)</strong></td>
<td>Social Psychology; Social Influence; Reciprocity</td>
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<tr>
<td><strong>Statistical Analysis</strong></td>
<td>$t$ test; Correlation</td>
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<td><strong>Design Features</strong></td>
<td>Field Experiment</td>
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<tr>
<td><strong>Summary</strong></td>
<td>To evaluate the effect that a helpful message from a server might have on restaurant tips, the server either wrote a message about an upcoming dinner special on the back of the dining check or left it blank. Dining parties who received a check with the helpful message tipped a higher percentage of the final bill than those who did not have this message on the back of their check.</td>
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</tbody>
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| **Suggested Use(s)** | Discussion Starters:  
- What are the design elements (IV, DV) and operational definitions?  
- What are the potential confounds?  
- What are the strengths and weaknesses of the study design?  
- The message written on the back of the check concerned an upcoming special dinner at the restaurant. Is it possible that it was the content of the message rather than simply a personalized message from the server that accounts for the results? How might the authors have evaluated this possibility?  
- Researchers used index cards to randomly assign the dining parties to the experimental and control conditions. What other strategies could they have used for random assignment in this field experiment?  
- Why did the researchers instruct the server to behave in the same way when delivering the check at the end of the meal? What possible threats to internal validity might be created if the server’s behavior varied when delivering the check?  
- How might the following aspects of this study limit the study’s external validity?  
  - A young female adult was the authors’ accomplice.  
  - The study was conducted at a private country club.  
  - The meal was buffet style.  

In-class Activities:  
- This study used only two groups. Have students suggest a third group the authors could have employed. What question(s) would this third group allow the authors to address in the study?  
- This study used an empty control group. Have students think of an additional control group to add to the study. What new question(s) would the authors address by having this extra control group?  
- The authors suggested that the increase in tips may have been due to reciprocity concerns rather than perceptions of friendliness. Have the class redesign this experiment to test these competing ideas.  
- Have students create a list of behaviors that may increase a server’s tips. Have them design an experiment that would scientifically evaluate the impact of those efforts on tips received.  
- Have students design an experiment that would scientifically evaluate tipping in another context (e.g., a tip jar at a coffee or ice cream shop). |