



**Title of Resource** Exemplar Study: Mixed Design (Cuteness & Carefulness)

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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 mixed design. Discussion starters and in-class activities based on the referenced article are included.

**Keywords:** Experimental Designs; Mixed Design; 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.

<b>Design</b>	Mixed Design
<b>Subject Area(s)</b>	Developmental; Perception; Nurturance
<b>Statistical Analysis</b>	<i>t</i> test (paired sample); Correlation; Repeated Measures ANOVA
<b>Design Features</b>	Slideshow Presentation of Stimuli; Physiological Assessment (BioPac); Behavioral Measures (grip strength and skill at the game “Operation”)
<b>Citation</b>	Sherman, G. D., Haidt, J., & Coan, J. A. (2009). Viewing cute images increases behavioral carefulness. <i>Emotion, 9</i> , 282-286. doi:10.1037/a0014904
<b>Summary</b>	<p>This article examined how the perception of cuteness influences behavioral carefulness, enhancing people’s ability to care for infants. While researchers took physiological measures of heart activity and skin conductance, they exposed participants to a slide show of pictures of either infant animals (kittens and puppies) previously judged as very cute or adult animals (cats and dogs) judged to be less cute. Both before and after the slideshow, participants played the game “Operation” that required them to use tweezers to remove plastic body parts without touching the sides of the compartments. The game served as an assessment of behavioral carefulness. Participants exposed to cute infant animals displayed greater improvements in fine-motor control from before to after the slide show. Lack of consistent changes in physiological measures ruled out general physiological arousal as an explanation. Results indicated that cuteness not only motivates people to nurture, but also enhances their ability to do so.</p>
<b>Suggested Use(s)</b>	<p><u>Discussion Starters:</u></p> <ul style="list-style-type: none"> <li>• What are the design elements (IV, DV) and operational definitions?</li> <li>• What are the potential confounds?</li> <li>• What are the strengths and weaknesses of the study design?</li> <li>• How strong is the external validity of this research design? How effectively does the manipulation of cuteness used in the study relate to infant care? Does a participant’s performance in the game “Operation” really transfer to nurturing? Why or why not?</li> <li>• One element in this design was a pretest and posttest measure. What are the advantages of using this type of design? Was it necessary?</li> </ul> <p><u>In-class Activities:</u></p> <ul style="list-style-type: none"> <li>• Ask the class for other ways to manipulate cuteness. As a class or in small groups, generate and develop a new manipulation for cuteness. <ul style="list-style-type: none"> <li>○ Suggestions in case students get stuck: the sounds of babies cooing versus children playing; the smell of baby powder versus deodorant.</li> </ul> </li> <li>• This study used the game “Operation” to assess carefulness via fine motor control. In small groups ask the class to generate other ways to measure carefulness. <ul style="list-style-type: none"> <li>○ Suggestions in case students get stuck: walking a balance beam, carrying an egg on a spoon, playing a video game that takes dexterity, providing handwriting samples.</li> </ul> </li> </ul>