

Title: Help and Hesitation: Testing Executive Function in Children

Authors: Ehijie U. Aikhuele, Bethany MacDonald, Rebecca A. Williamson

Faculty Sponsor: Rebecca A. Williamson, Associate Professor, Department of Psychology

Introduction: Many children have difficulty carrying out executive functions, such as switching between different rules. The Dimensional Change Card Sort is a test of this ability. Children are asked to sort cards under one categorical rule (e.g., color or shape) and again by another sorting rule.

Purpose: In the current experiment, we test whether different cues from adults will impact children's performance on the task. We hope to uncover methods that may improve children's performance on this basic ability. In this poster, we focus on whether children show any signs of hesitation while placing the cards, in the hope that this may be a subtle measure related to their understanding of the task.

Method: The children ( $N = 46$ ,  $M = 37.7$  months) were first asked to sort two kinds of cards by one feature (e.g., color) in the pre-switch trials and then by a second feature (e.g., shape) for the post-switch trials. Some children received explicit cues for placing the cards before the post-switch trials. Children's behaviors were scored for any indication of indecision when placing cards during the post-switch trials.

Results: The adult's cues did influence children's performance in the task. However, children showed the same amount of hesitation regardless of which group they were in, and hesitating was unrelated to performance on the task.

Conclusion: Thus the help children received did not effect on the amount of hesitation shown. It is possible that hesitations may not be the best measure of understanding, because children may have difficulties assessing their own knowledge.

Keywords: Executive function, Dimensional Change Card Sort, Indecision, Hesitation, Preschool-aged children, Cognitive Development, Developmental Psychology