

## ABSTRACT

**DISSERTATION/THESIS/RESEARCH PAPER/CREATIVE PROJECT:** Evaluating the Relationship between the WISC-IV and Executive Functioning On the NEPSY-II in a Clinical Sample

**STUDENT:** Jesse J. Piehl

**DEGREE:** Doctor of Philosophy

**COLLEGE:** Teachers College

**DATE:** July 2015

**PAGES:** 110

The current study used the *Wechsler Intelligence Scale for Children – Fourth Edition* (WISC-IV) and the *NEPSY – Second Edition* (NEPSY-2) to examine the relationship between intellectual functioning and executive functioning in a clinical pediatric population. Prior research has found at least modest relationships between these areas of functioning in healthy populations. However, the current study revealed mixed findings using canonical correlation to examine the relationship between two sets of variables: The WISC-IV composites and subtests and the NEPSY-2 Inhibition task. Most canonical correlations revealed no significant relationship between these two sets of variables, suggesting clinically-referred children have less relationship between intellectual and executive functioning when compared to previous research studying healthy individuals. This was likely due to the high rate of attention-deficit/hyperactivity disorder (ADHD) and other clinical conditions in the current sample. However, one significant canonical correlation suggests that some level of interrelatedness does remain, likely due to task-impurity of executive functioning measures. While the working memory and processing speed tasks of the WISC-IV alone were significantly related to the

Combined scores of the Inhibition-Naming and Inhibition-Switching tasks of the NEPSY-2, further research is needed to determine if the Working Memory Index and Processing Speed Index can be used to infer estimates of executive functioning, especially as it relates to cognitive flexibility and set-shifting. The results of this study underscore the importance of measuring executive functioning during the course of neuropsychological and school psychological evaluations to avoid errors in extrapolation of intellectual functioning performance to estimate executive functioning.