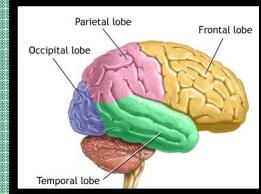


Examining Executive Function in School-Aged Children

Janet Bagby, Lucy Barnard-Brak, Tracey Sulak & Natalie Jones
Department of Educational Psychology
Baylor University
janet_bagby@baylor.edu

Background Rationale:

- Executive function
 - What is it?
 - How do we measure it?



Purpose of the Current Study:

- Examine executive function of elementary students, grades 4-6, enrolled in three private schools, each with a different educational philosophy



Montessori School Catholic School Classical School

Research Questions:

- Do scores on the BRIEF differ among participants from different educational settings?
- What is the relationship between parental ratings and teacher ratings of participants?

? **?** **?** **?** **?**

Method: Participants

- 128 parents of students in elementary school
 - Catholic
 - Montessori
 - Classical
- Teachers of the students included in the study
- Incentives for participation – monetary and instructional in-service for parents and teachers

Method: Measures

- Behavior Rating Inventory of Executive Function (BRIEF)
 - Parent Scale and Teacher Scale
- Interviews

Behavior Rating Inventory of Executive Function (BRIEF)

Scales

- Inhibit – Control impulses, appropriately stop own behavior at the proper time
- Shift – Move freely from one situation to another
- Emotional Control –Regulate emotional responses
- Initiate – Begin a task or activity, generate ideas

Behavior Rating Inventory of Executive Function (BRIEF)

Scales

- Working Memory – Hold information in mind for the purpose of completing a task; stay with a task
- Plan/Organize – Set goals; anticipate future events; carry out tasks in a systematic manner
- Organization of Materials – Keep work-space, home-space in an orderly manner
- Monitor – Check work; assess performance during or after finishing a task

Method: Procedure

- Meet with schools to ensure participation
 - Compensation if both forms are returned
- Distribute BRIEF forms for parents and teachers
 - 60 of each form for each school

Method: Analysis

- Must include both forms to be a part of the analysis
- Analyses:
 - Correlations between parent and teacher ratings
 - Analysis of Variance
 - Controlling for age, number of years in the school, and diagnosis of learning disabilities

Results

Reliability:
 Parent form $\alpha = .947$
 Teacher form $\alpha = .971$

Results

- Correlation between parent and teacher forms was $r = .371$, $p < .05$.
- Similar to correlations reported by test manual.

Results

- No significant difference between Montessori and Classical school environments in executive functions (EF).
- Both Montessori and Classical schools EF were significantly better than Catholic school, $F(2, 90) = 3.824, p = .026$.

Conclusions

- Students in Montessori and Classical school settings appear to have better EF.
- Future research should further examine these similarities and differences in EF according to school curriculum.

