

CHILDREN WHO ENTER MONTESSORI AS FIRST-GRADERS: THE ROLE OF EXECUTIVE FUNCTION IN ADJUSTMENT



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WHAT WE LEARNED

Does prior Montessori experience help with the adjustment to first-grade in Lower Elementary? Montessori charter schools may not have a Children's House, and this may be related to differential outcomes for entering first-graders. This study tracks adjustment across the first grade year for students entering Montessori for the first time. It is hypothesized that students with lower executive function scores at the start of first grade will gravitate towards works from practical life and sensorial and will require more time to adjust to the Lower Elementary classroom environment.

The executive function levels were measured through the direct assessment and parent report for 12 students. Twenty-five percent of the students demonstrated extremely high scores on the parent report, indicating overall challenges with executive function. Three children's profiles indicated relatively few challenges with executive function. To measure adjustment, we will text analyze the monthly conference forms completed by the children and the guides. The primary themes for analysis include the types of work completed and behavioral concerns in the classroom.

Children with lower executive function skills at the start of first grade may need scaffolding to be successful in typically unstructured situations. They may or may not benefit from additional practical life and sensorial, but should benefit from instruction in the hidden curriculum of Montessori. Children with higher executive function appeared to feel successful in the classroom but were still challenged by the social aspects of Lower Elementary.

BACKGROUND

Montessori charter schools that do not have a Children's House may face unique normalization challenges. Behaviors learned in early childhood and movements perfected through practical life and sensorial works should help children adjust to the additional freedom and rigor of Lower Elementary. Including sensorial and practical life works in the Lower Elementary classroom may help entering students master behaviors typically taught in early childhood.

OBJECTIVES

- Measure executive function at entering first grade
- Relate executive function scores to works completed
- Relate executive function scores behaviors related to adjustment or maladjustment in Lower Elementary

METHODS

Children were assessed with the Minnesota Executive Function Scale (MEFS) and parents were asked to complete the Behavior Rating Inventory of Executive Function (BRIEF) prior to the start of the 2018-2019 school year. Monthly conferences with children were recorded by the guides to assess work completion and adjustment. Additional videos of classrooms, interviews with teachers, discipline data, and administrator walk-thru forms will be analyzed at a later date.

RESULTS

Average Scores on Measures

	MEFS (z score)	BRIEF-2 (T scores)			
		BRI	CRI	ERI	Composite
Higher Profiles	-0.50	45	41	43	42
Lower Profiles	-0.04	50	69	48	61

Entering first graders were assessed and divided into two groups according to the BRIEF executive function scores: higher profile and lower profile. The majority of students scores between -0.50 and 0.50 (z score) on the MEFS, but scores on the BRIEF showed more variability and these scores were used to form the profile groups. The composite T score averages for the two groups, as shown above, were significantly different at the beginning of the school year. Students will be reassessed this spring.



MAJOR THEMES

1. Children with lower executive function were challenged by situations with lesser structure (recess; the bus; lunch; snack).
2. Behavior statements for the lower executive function group were directives about how to behave appropriately while statements for the higher group focused on social skills and friendship.
3. Children with higher executive function may choose fewer practical life or sensorial works, but this may be an artifact of the type of data collection used.

Additional Waves of Data Collection

- Additional MEFS and BRIEF assessments at the end of the year
- The next phase includes a new cohort of first-grade children and several design changes:
 - Introduce practical life and sensorial at the beginning of school
 - Collect video data of classroom interactions every two weeks
 - Conduct MEFS beginning, middle and end of year