

Evaluating an Assessment Tool for Montessori Fidelity: Preliminary Findings II

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Introduction

Despite an increase in Montessori research in recent years, rigorous evidence of the method's effectiveness is still extremely limited. Robust research is needed to establish a strong evidence base for the method. A high quality, efficient fidelity instrument would potentially improve the quality of future Montessori research.

Background

To draw conclusions Montessori researchers must establish the authenticity of the environments they study. Doing so is essential given research showing higher fidelity programs are associated with better student outcomes¹.

Montessori fidelity in research typically is established using in-person observations^{1,2}. For most projects, a less labor-intensive method would be valuable. While Montessori organizations agree on the essential elements for successful programs^{3,4}, no widely accepted instrument exists for assessing these elements. This questionnaire represents the first step in creating such an instrument.

The purpose of this study was to examine the suitability and validity of items included in an instrument assessing Montessori early childhood and elementary teachers' classroom practices.

Research Questions

1. How consistent are teachers' reported practices with those deemed both *critical* as well as *detrimental* by Montessori experts to high fidelity implementation?
2. Is there expert consensus on most practices? If not, how consistent are teacher's practices with items lacking expert consensus?

Methods

Participants

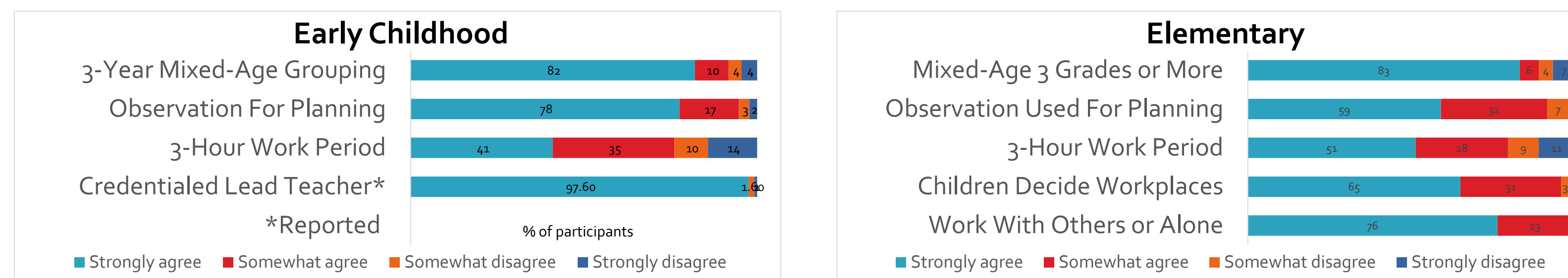
	Early Childhood	Elementary
Expert Panelists	N = 10	N = 13
Montessori Teachers	N = 134	N = 117
AMS Credentialed	67%	73%
AMI Credentialed	14%	10%
MA or above	45%	93%
Public School	26%	53%

Procedure

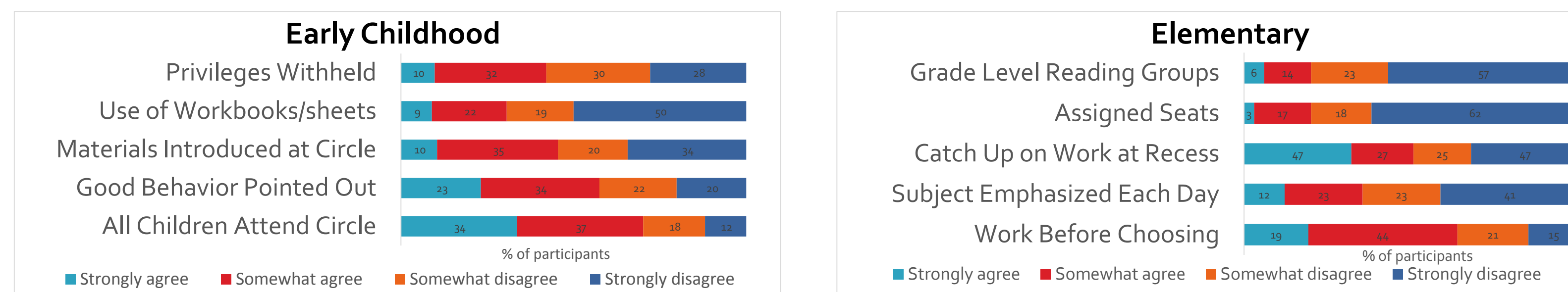
Montessori expert panelist electronically sorted survey items into 5 categories: **Critical, Very important, Nice to have, Not important/possibly detrimental, Detrimental**. Survey participants completed the Teacher Questionnaire of Classroom Practices (TQ), and their responses were ranked according to perceived importance. Teacher responses were then compared to those of Montessori expert panelists.

Results

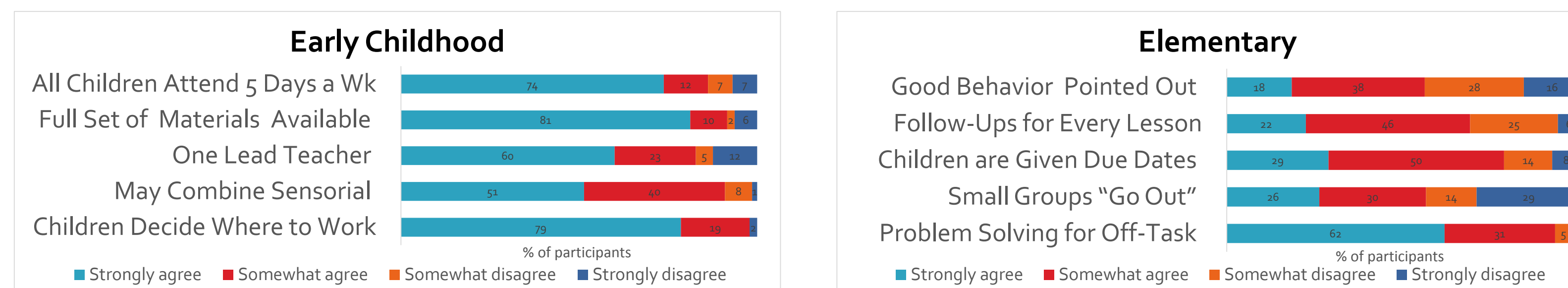
Practices Experts Deem *Critical* to High Fidelity Montessori And Teachers' Reported Practices



Practices Experts Deem *Detrimental* to High Fidelity Montessori And Teachers' Reported Practices



Practices with a Lack of Expert Consensus* and Teachers' Reported Practices



* Practices experts classified into 4 categories

Note: The early childhood item "28-35 children in each classroom" lacked expert consensus across all 5 levels (ranging from *critical* to *detrimental*), and was not included as an agreement question in the survey. Instead, teachers were asked for their class size. The average class size was 22 children ($sd=5.020$), with 88% indicating there were less than 28 children typically in their classrooms.

Instrument

1. Survey Questions: Based on Montessori/Montessori expert writings and prior Montessori research
2. Feedback from experienced psychometricians
3. Items: 39 EC, 48 EL rated on a 4-pt Likert scale
4. Administered through Qualtrics survey platform; 15-20 minutes to complete

Discussion

Teachers participating in this pilot study reported a range of agreement on questions about their classroom practices deemed both critical and detrimental to high fidelity Montessori by the panel of experts selected for this project. Of the critical practices, the 3-hour work period was least consistent for both age groups. Of the practices considered detrimental, all EC children attending circle time and elementary children completing required work before choosing their own showed least consistency.

In the areas where experts lacked consensus, teacher practices were fairly consistent at the early childhood level. At the elementary level, however, teachers were also inconsistent in their practices except in the area of implementing problem solving strategies to address off-task behavior.

Lack of expert consensus on the number of children per classroom and the small percentage of teachers (12%) who reported meeting this goal suggests that there are either obstacles to implementation or disagreement on the benefits of this practice.

Future Directions

This instrument is currently being pilot tested with another group of teachers after revisions based on initial Rasch analysis. Continued analysis with experts in the field and psychometricians from the national research working group and KU Center for Montessori Research are planned before designing a final version for use in research and evaluation projects.

References

1. Lillard, A. S. (2012). Preschool children's development in classic Montessori, supplemented Montessori, and conventional programs. *Journal of School Psychology, 50*, 379-401.
2. Riley Institute for Education Policy. (2016). The S.C. Public Montessori Study: Classroom Observation Data.
3. National Center for Montessori in the Public Sector (n.d.). Essential elements of successful Montessori schools in the public sector.
4. Montessori Public Policy Initiative. (2015). Montessori essentials. Retrieved October 10, 2016, from <http://www.montessoripublicpolicy.org/resources>

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