Early Childhood math lessons: Further analysis from Montessori Records Xpress (MRX)



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Background

Montessori Records Xpress ...

- · Online record keeping system for teachers.
- Specifically designed for Montessori educators.
- Allows teachers to monitor individual student progress on lessons.
- Over 700 Early Childhood classrooms.

Research Initiative

- MRX scope offers researchers valuable information.
- AMS and MRX collaboration to make data available for analysis.
- Began with Early Childhood classrooms in 2010.
 - 90 schools, 103 classrooms 666 students.
- Elementary level is under development to pilot in 2012.

Goals of Initiative

Understand complexity of Montessori education implementation:

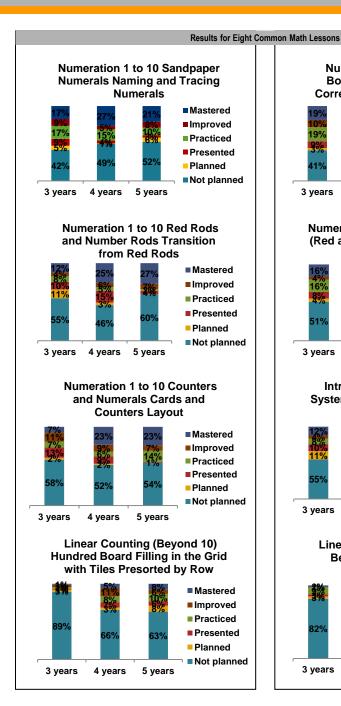
- Prevalence of lessons and work
- Relationship to school, classroom, teacher and student characteristics
- · Growth over time
- Other goals as identified by researchers
- Future possibilities for linking outcomes information

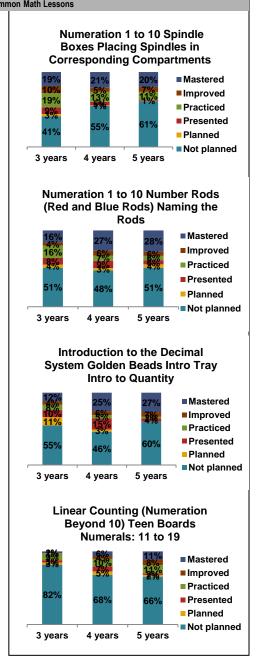
Research Methods

These results are based on a secondary analysis of math lessons recorded in MRX by participating Early Childhood teachers through January 20, 2012.

A total of 384 three, four and five year old children were included in this analysis, (166 3's, 128 4's and 90 5's) These students represented 32 classrooms with four public and 28 private schools.







Discussion

Teachers are most likely to be at least planning for three year olds to be working on tracing Sandpaper Numerals and placing Spindles in corresponding compartments 1 to 10. Not surprisingly, most three year olds have not been introduced to numeration beyond 10. Also as expected, five year olds are more likely than either threes or fours to have mastered almost all of these basic math lessons. What may be most surprising is that so many of them are still working on basic lessons. This may be due to the fact that many of the participating classrooms are new.

The quality of this analysis is limited by the accuracy of student data recorded by teachers and their recordkeeping practices. Out of 103 classrooms who signed up to participate in the AMS/MRX Early Childhood Research Initiative, only 32 included three, four and five year olds and had recorded data on any of the math lessons being tracked.

Even these classrooms, however, had a limited amount of information available. Roughly half of the children had no status updates for even the most popular lessons.

Next Steps

- Next phase of analysis will be understanding the recordkeeping process and finding ways to improve the data available for research.

 Fixed panel currently reviewing elementary.
- •Expert panel currently reviewing elementary lesson "list"
- •Application for researchers to access data to be released after the conference. Use will be encouraged through: AMS Website, Dissertations/Theses, Periodic updates on interesting findings, AMS Mini Grant Program, Outside organizations, Launch plans for Elementary Summer 2012.

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