Sensorial lessons: Analysis from Montessori Records Xpress (MRX)



Angela K. Murray, PhD, AMS Research Coordinator, University of Kansas



Background

Montessori Records Xpress ...

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

Research Initiative

- MRX scope offers researchers valuable information
- AMS/MRX collaboration
- Began with Early Childhood classrooms in 2010
 - 41 schools, 54 classrooms 997students
- Elementary level is under is piloting this year

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 2013.

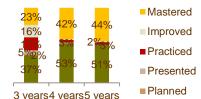
A total of 424 three, four and five year old children were included in this analysis, (163 3's, 119 4's, and 61 5's) These students represented 34 classrooms.



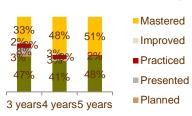
Results for Eight Common Sensorial Lessons

Knobless Red Cylinders 16% 35% 44% Improved Improved Practiced Presented 3 years4 years5 years

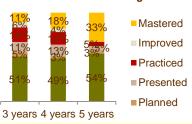
Pink Tower Centered Vertical

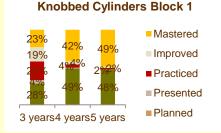


Color Tablet Box 1 Matching

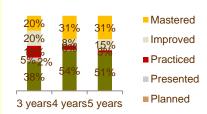


Binomial Cube Building on Lid

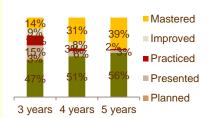




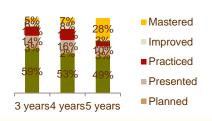
Brown Stair Horizontal



Red Rods Standard Formation



Geometric Solids Intro



Discussion

Three-year-olds are more likely than older children to be practicing or improving on most popular sensorial lessons.

Four-year-olds are similar to five-year-olds on most sensorial lessons except on color matching tablets, binomial cube and geometric solids.

Not surprisingly, five-year-olds are more likely than three-year-olds to have mastered most popular sensorial lessons. On the binomial cube and geometric solids, the oldest children are more likely than either three- or four-year olds to have mastered the lessons.

The quality of this analysis is limited by the accuracy of student data recorded by teachers and their recordkeeping practices. Out of 54 participating classrooms, only 34 had recorded data on any of the sensorial lessons being tracked for three, four and five year olds

Even these classrooms, however, had a limited amount of information available. One-third to one-half of the children had no status updates for even

Next Steps

- •Continue to explore ways to improve the data •Identify prospective classrooms for working closely to gather rich longitudinal data.
- •Encourage use of the data through:
 - ➤ AMS Website
 - ➤ Dissertations/Theses
 - ➤ Periodic updates on interesting findings
 - >AMS Mini Grant Program
 - ➤ Outside organizations
- •Conduct preliminary analysis of Elementary database.

Contact information

Angela K. Murray

University of Kansas Lawrence, KS

akmurray@ku.edu research@amshq.org