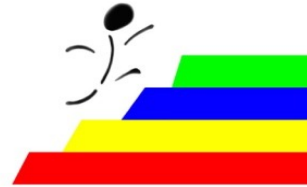


**MATH
TRACKS**



**Michiana Math Track
Program Evaluation
Year 5 Results
2010-2011 School Year**

Kindergarten Assessment 1 (Orange Assessment)

Only students who completed both pre and post tests were included in the analysis. There were 228 KG students in the control group and 374 in Michiana Math Tracks (MMT) schools who completed both assessments. Initial group means at the beginning of the year were statistically different based on treatment and control groupings, $F(1, 600) = .54, p = .463$. The control group and MMT students had similar scores on the KG1 pretest. At yearend MMT students demonstrate a statistically significant increase in achievement compared to the control group, $F(1,600) = 133.9, p < .000$. The MMT group scored 4 point higher on average than the control group. The average gain was approximately 4 points more for MMT students. This assessment has a total score of 26 point. The results of an Analysis of Covariance (ANCOVA) using September scores as a covariate, yearend test scores as the dependent variable, and the Michiana Math Tracks intervention as the independent variable suggest that this intervention did have an impact on student success on the year end assessment. The effect size (ES) calculations indicate that approximately 20% of the variance in final assessment could be attributed to the MMT program. However, the ability of the student was also a significant factor in students' achievement. Based on the effect size calculation 8% of the variance in math achievement could be attributed to students' previous or natural ability and effort as measured by the pretest.

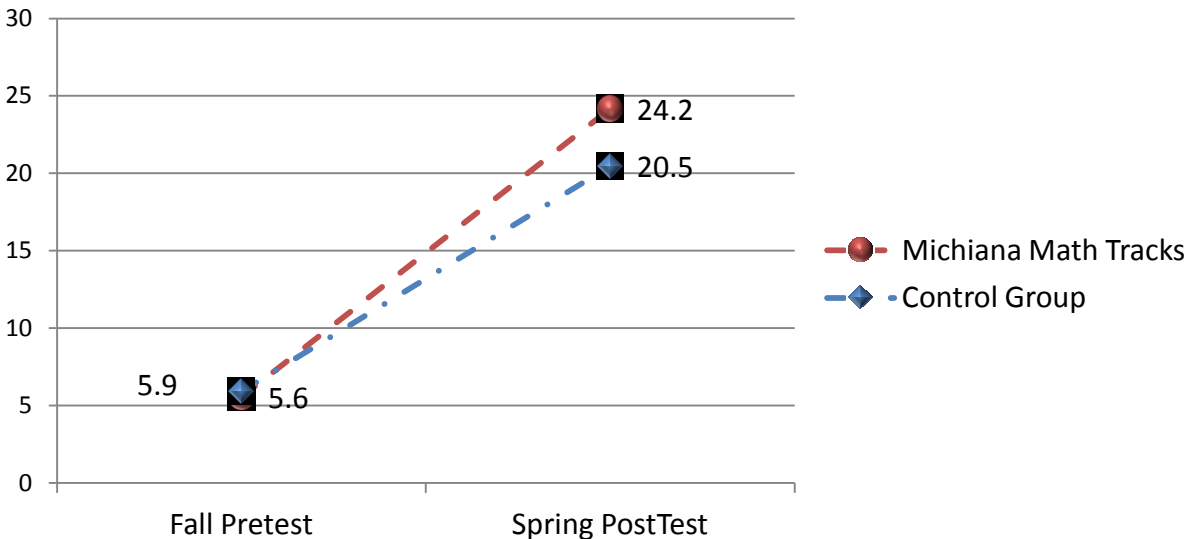


Figure 1. Kindergarten Achievement by Group for Kindergarten Assessment 1

Kindergarten Assessment 2 (Purple assessment)

Group means for assessment 2 were statistically different based on comparison grouping in September, $F(1, 600) = 2.87, p = .091$. Control group students achieved similar results compared to MMT students at the beginning of the year. By yearend MMT students demonstrate a statistically significant increase in achievement when compared to students in the control group, $F(1, 600) = 240.7, p < .000$. The MMT students mean on the final was 24 points higher. The averages gain for MMT students was approximately 25 point more that students in the control group. The results of an ANCOVA suggest that the MMT intervention did have an impact on student success on the year end assessment. The effect size (ES) calculations indicate that 39% of the variance in final assessment could be attributed to the MMT program. However, the ability of the student was also a significant contributing factor in students' achievement. Based on the effect size calculation about 29% of the variance in math achievement could be attributed to students' previous or natural ability and effort.

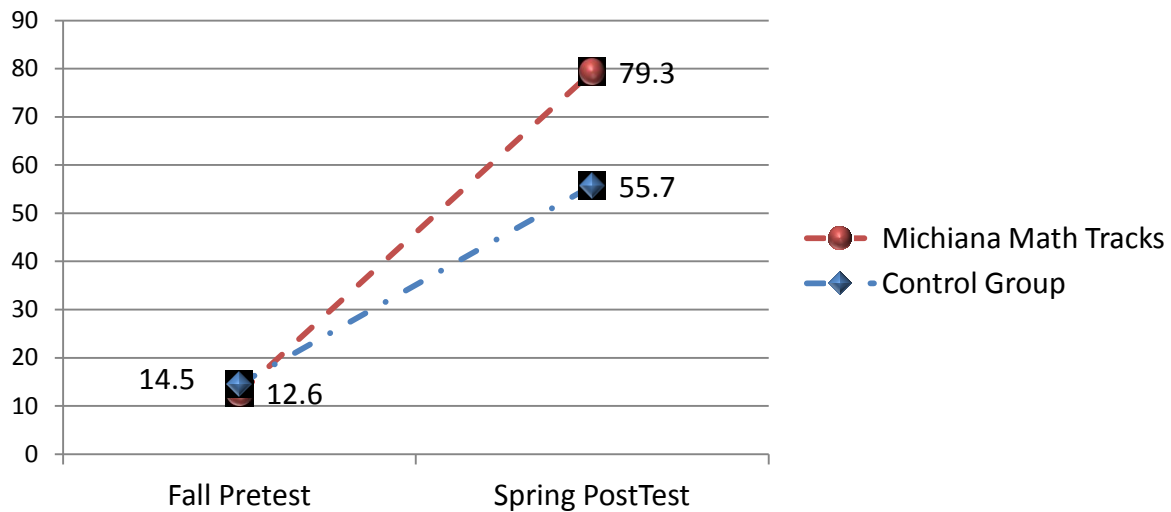


Figure 2. Kindergarten Achievement by Group for Kindergarten Assessment 2

First Grade Assessment

Only student how completed both assessments were included in this analysis. This consisted of 132 MMT students and 203 control group students. Overall the group means for first grade students were statistically different at the beginning of the year. In September, MMT students performed better than control group students, $F(1, 333) = 9.5, p = .002$. Average scores on the pretest were about 5 point higher for students in the MMT group. At yearend MMT students also did significantly better in terms of gain compared to control group students, $F(1,333) = 59.7, p < .000$. Average scores on the final were 18 point higher on average for MMT students. The averages gain for MMT students was approximately 13 point more that students in the control group. The results of an ANCOVA suggest that this intervention had a significant impact on student success as measured by this assessment. The effect size (ES) calculations indicate that approximately 14% of the variance in final assessment could be attributed to the MMT program. The ability of the students again was a significant factor in students' achievement. Based on the effect size calculation 37% of the variance in math achievement could be attributed to students' previous or natural ability and effort.

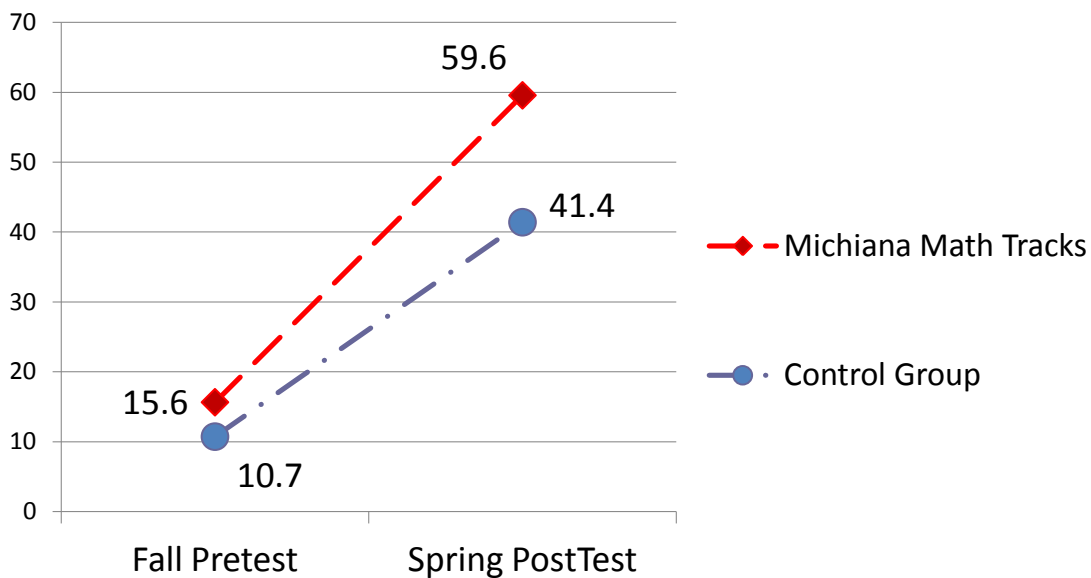


Figure 3. First Grade Achievement by Group

Second Grade Assessment

Only student how completed both assessments were included in this analysis. There were 67 MMT students and 45 control group students used in this analysis. Overall the group means for second grade students were statistically similar at the beginning of the year, $F(1, 110) = 2.7$, $p = .104$. Average scores on the pretest were about 3 point higher for students in the MMT group. However, by yearend MMT students did significantly better compared to control group students, $F(1,110) = 28.0$, $p < .000$. Average scores on the final were 23 point higher on average for MMT students. The averages gain for MMT students was approximately 20 point more that students in the control group. The results of an ANCOVA suggest that this intervention had a significant impact on student success as measured by this assessment. The effect size (ES) calculations indicate that approximately 21% of the variance in final assessment could be attributed to the MMT program. The ability of the students again was a significant factor in students' achievement. Based on the effect size calculation 36% of the variance in math achievement could be attributed to students' previous or natural ability and effort.

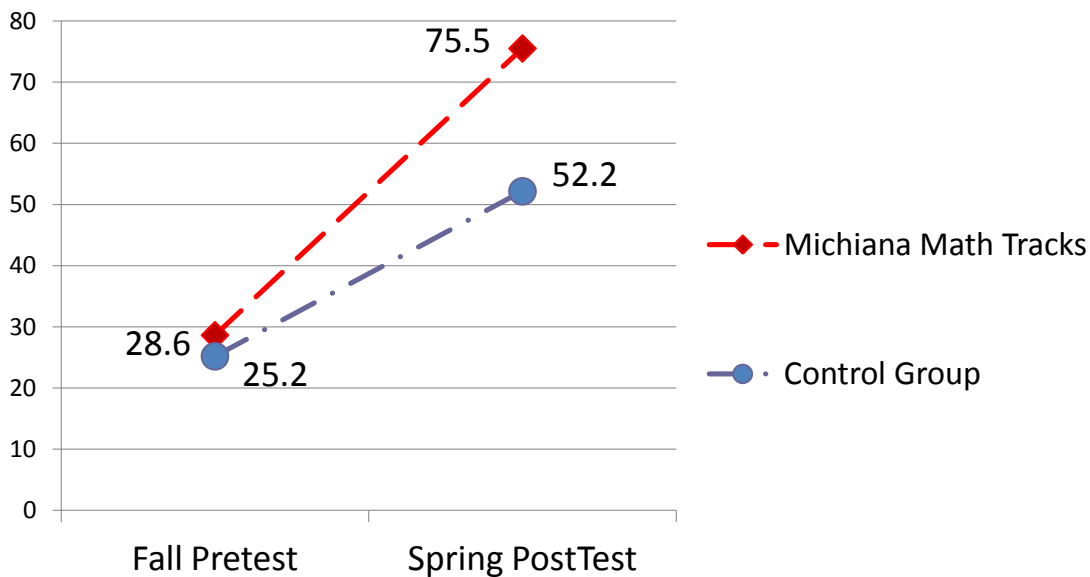


Figure 4. Second Grade Achievement by Group

Average Gain Comparison by Assessment and School

This analysis included all students who completed the pre and post assessments for each test. Looking at the average gains by treatment group, MMT students consistently made greater gains compared to control group students. Gains for Kindergarten Assessment 1 were approximately 4 points greater than control group students indicating a significant difference, $F(1, 600) = 65.1, p < .000$. Gains in the Kindergarten Assessment 2 was also statistically significant and represents an average difference in gain of 26 points, $F(1, 600) = 375.0, p < .000$. The gains on the first grade assessment were also statistically different, $F(1, 333) = 49.7, p < .000$. MMT students showed an average gain of about 13 points more than students in the control group. Gains in the second grade assessment was likewise statistically significant and represents an average difference in gain of 20 points, $F(1, 110) = 31.1, p < .000$.

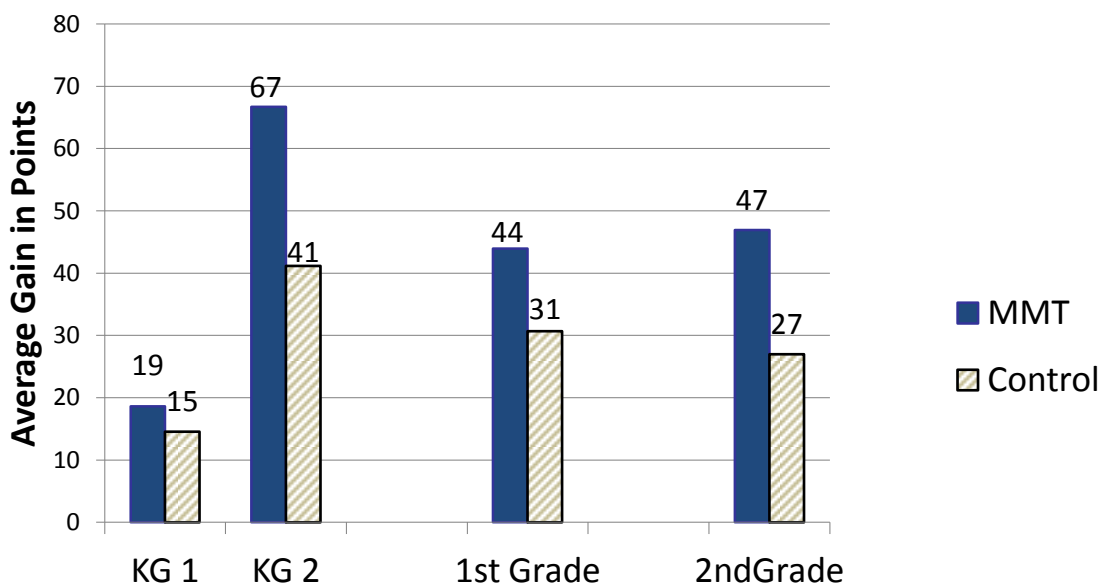


Figure 5. Average Gain in Achievement by Group and Assessment

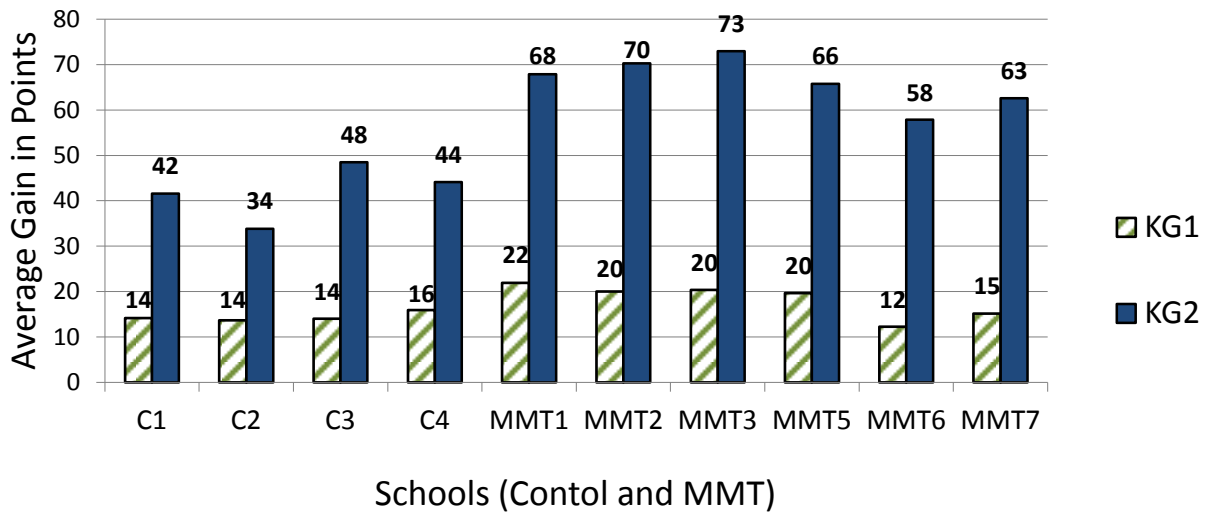


Figure 6. Average KG Gains in Achievement by School and Assessment

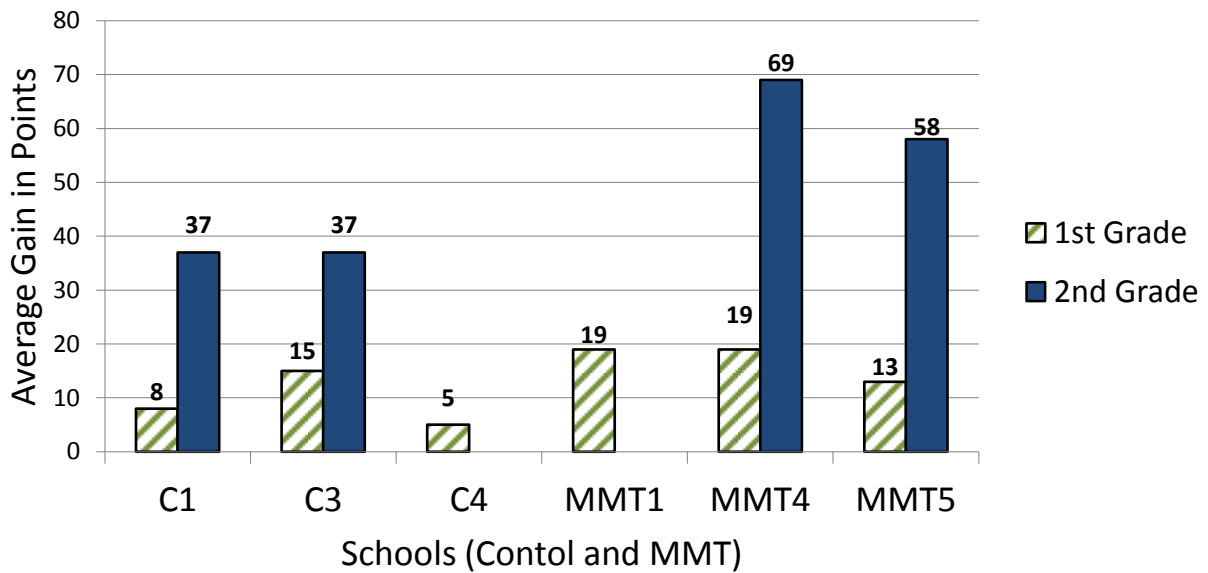


Figure 7. Average 1st and 2nd Grade Gains in Achievement by School and Assessment