

Longitudinal/Cross-Sectional Study of the Impact of *Mathematics in Context* on Student Performance

*Standardized Test Gain Score Data
for the Eight Grade-Level-by-Year Studies
in 1997-1998, 1998-1999, and 1999-2000*
(Technical Report #47)

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Romberg, T. A., Webb, D.C., & Folgert, L. (2004) *Standardized test gain score data for the eight grade-level-by-year studies in 1997-1998, 1998-1999, 1999-2000. (Mathematics in Context Longitudinal/Cross-Sectional Study Tech. Rep. No. 47)*. Madison, WI: University of Wisconsin, Wisconsin Center for Education Research

The research reported in this paper was supported in part by the National Science Foundation #REC-9553889 and #REC-0087511 and by the Wisconsin Center for Education Research, School of Education, University of Wisconsin-Madison and the Northern Illinois University. The views expressed here are those of the authors and do not necessarily reflect the views of the funding agency.

Introduction

The purposes of the longitudinal/cross-sectional study of the impact of *Mathematics in Context* (MiC; National Center for Research in Mathematical Sciences Education & Freudenthal Institute, 1997–1998) on student performance are (a) to determine the mathematical knowledge, understanding, attitudes, and levels of student performance as a consequence of studying MiC for over three years; and (b) to compare student knowledge, understanding, attitudes, and levels of performance of students using MiC with those using conventional mathematics curricula. The research model for this study is an adaptation of a structural model for monitoring changes in school mathematics (Romberg, 1987). For this study, information is being gathered on 14 variables over a 3-year period for three groups of students (those in Grades 5, 6, and 7 in 1997). The variables have been organized in five categories (prior, independent, intervening, outcome, and consequent). (See Figure 1 for variables and hypothesized relationships.)

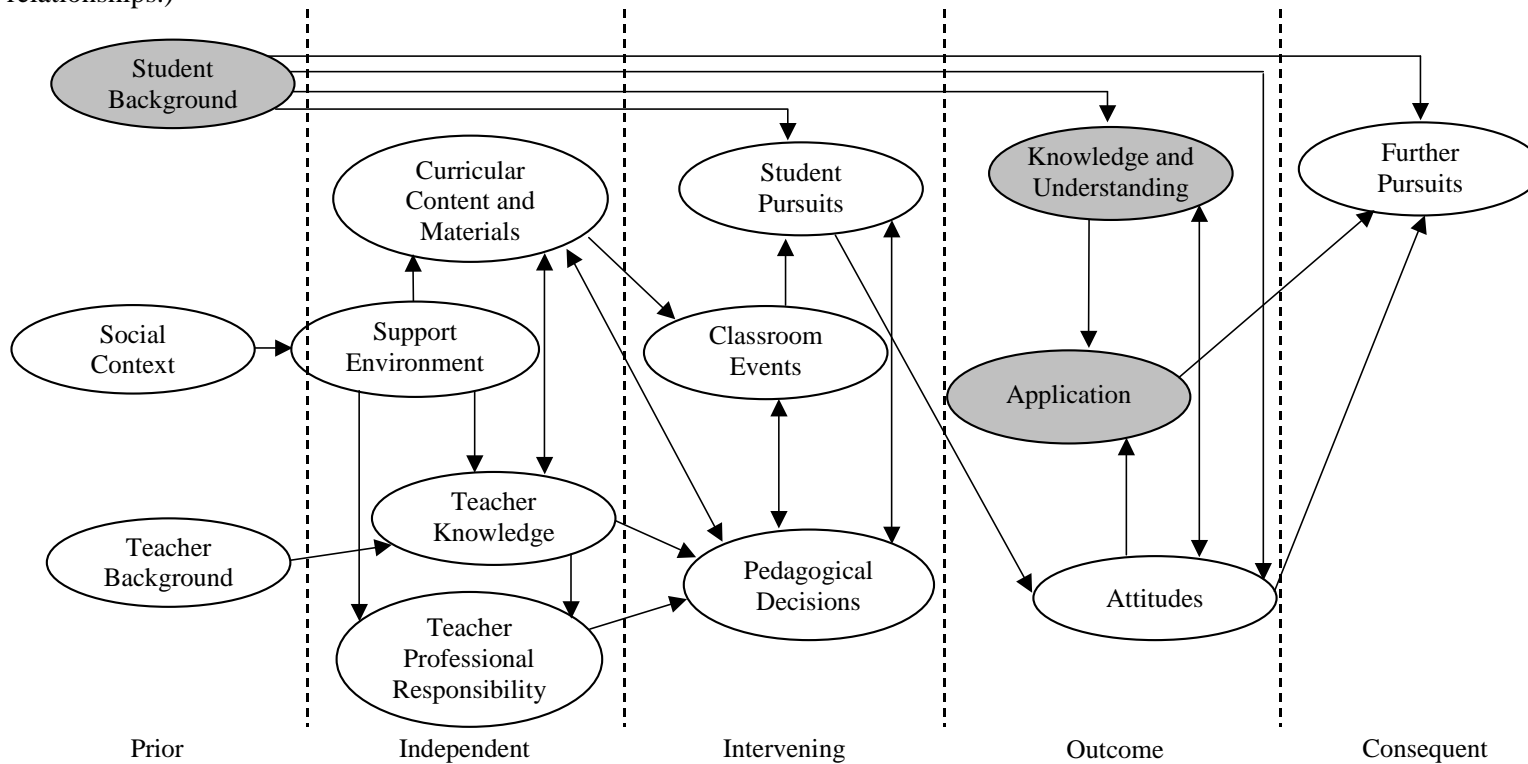


Figure 1. Revised model for the monitoring of school mathematics.

Overview

The data in this Technical Report contain the general results for the eight grade-level-by-year studies shown as white ellipses in Figure 2.

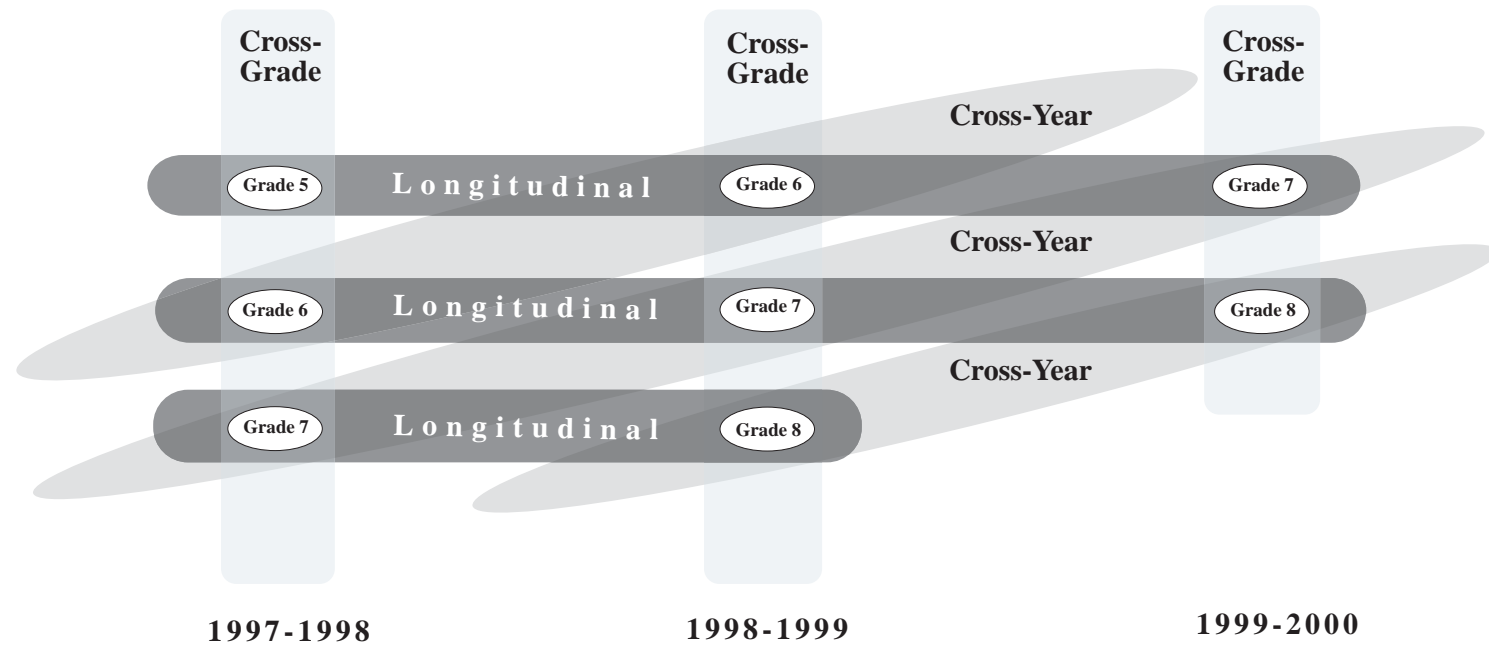


Figure 2. Sources of Data and Planned Comparisons of the MiC Longitudinal/Cross-Sectional Study

The tables in this report have been organized in terms of each of the eight year-by-grade studies. Within each study the data on student performance is then organized first across all districts, second for each district separately, and then by teachers within districts. The data uses only students who have **both** previous year and end of year standardized test scores.

Mathematics in Context Classrooms

Table 1.1
Overall Standardized Test Gain Scores for the Eight MiC Grade-Level-by-Year Studies in 1997-1998, 1998-1999 and 1999-2000

| Year | Spring 1998 Grade | (N) | Previous Year Standardized Test Mean | End of Year Standardized Test Mean | Standardized Test Gain Score Mean | StDev |
|--------|----------------------|-----|--|--|---|-------|
| Year 1 | | | | | | |
| | Grade 5 | 387 | 58.36 | 57.30 | -1.06 | 17.39 |
| | Grade 6 | 389 | 52.15 | 50.84 | -1.31 | 16.68 |
| | Grade 7 | 305 | 55.14 | 53.58 | -1.56 | 17.32 |
| Year 2 | | | | | | |
| | Grade 6 | 306 | 56.24 | 53.64 | -2.60 | 19.35 |
| | Grade 7 | 371 | 44.17 | 40.23 | -3.94 | 16.69 |
| | Grade 8 | 157 | 47.19 | 53.68 | 6.49 | 16.32 |
| Year 3 | | | | | | |
| | Grade 7 | 222 | 61.87 | 59.87 | -2.00 | 17.31 |
| | Grade 8 | 224 | 36.84 | 46.22 | 9.38 | 20.81 |

Table 1.2
Standardized Test Gain Scores for Grade Five, Six, and Seven MiC Students in 1998-1999 by District

| District | (N) | Spring 1997 Standardized Test Score Mean | Spring 1998 Standardized Test Score Mean | Standardized Test Gain Score Mean | StDev |
|-------------------------------|-----|---|---|---|-------|
| <i>Grade 5 in Spring 1998</i> | | | | | |
| District 1 | 141 | 59.06 | 58.86 | -0.21 | 17.69 |
| District 2 | 132 | 59.12 | 55.16 | -3.96 | 15.66 |
| District 3 | 114 | 56.61 | 57.86 | 1.25 | 18.57 |
| District 4* | 0 | | | | |
| <i>Grade 6n Spring 1998</i> | | | | | |
| District 1 | 103 | 48.81 | 44 | -4.64 | 15.08 |
| District 2 | 138 | 54.53 | 45 | -9.69 | 16.67 |
| District 3 | 148 | 52.26 | 61 | 8.83 | 12.25 |
| District 4* | 0 | | | | |
| <i>Grade 7n Spring 1998</i> | | | | | |
| District 1 | 35 | 47.2 | 49 | 1.97 | 16.55 |
| District 2 | 152 | 44.59 | 45 | 0.17 | 18.26 |
| District 3 | 118 | 69.97 | 65 | -4.54 | 15.97 |
| District 4* | 0 | | | | |

* Standardized test national percentages were not available.

Table 1.3
Standardized Test Gain Scores for Grade Six, Seven, and Eight MiC Students in 1998-1999, by District

| District | (N) | Spring 1998 Standardized Test Score Mean | Spring 1999 Standardized Test Score Mean | Standardized Test Gain Score Mean | StDev |
|-------------------------------|-----|---|---|---|-------|
| <i>Grade 6 in Spring 1999</i> | | | | | |
| District 1 | 54 | 68.26 | 68.02 | -0.24 | 18.23 |
| District 2 | 148 | 51.90 | 42.25 | -9.65 | 19.61 |
| District 3 | 104 | 56.37 | 62.38 | 6.02 | 15.45 |
| District 4* | 0 | | | | |
| <i>Grade 7 in Spring 1999</i> | | | | | |
| District 1 | 69 | 44.71 | 31.72 | -12.99 | 17.67 |
| District 2 | 190 | 33.89 | 34.44 | 0.54 | 16.46 |
| District 3 | 112 | 61.27 | 55.29 | -5.97 | 13.59 |
| District 4* | 0 | | | | |
| <i>Grade 8 in Spring 1999</i> | | | | | |
| District 1 | 24 | 50.04 | 51.04 | 1.00 | 18.34 |
| District 2 | 74 | 40.31 | 47.72 | 7.41 | 16.59 |
| District 3 | 59 | 54.66 | 62.24 | 7.58 | 14.89 |
| District 4* | 0 | | | | |

* Standardized test national percentages were not available.

Table 1.4
Standardized Test Gain Scores for Grade Six, Seven, and Eight MiC Students in 1999-2000, by District

| District | (N) | Spring 1999 Standardized Test Score Mean | Spring 2000 Standardized Test Score Mean | Standardized Test Gain Score Mean | StDev |
|-------------------------------|-----|---|---|---|-------|
| <i>Grade 7 in Spring 2000</i> | | | | | |
| District 1 | 68 | 68.21 | 63.69 | -4.51 | 18.66 |
| District 2 | 59 | 55.98 | 57.34 | 1.36 | 18.36 |
| District 3 | 95 | 60.60 | 58.94 | -1.66 | 14.29 |
| District 4* | 0 | | | | |
| <i>Grade 8 in Spring 2000</i> | | | | | |
| District 1 | 84 | 36.18 | 47.18 | 11.00 | 19.28 |
| District 2 | 90 | 38.07 | 45.19 | 7.12 | 23.46 |
| District 3 | 50 | 35.74 | 46.46 | 10.72 | 18.04 |
| District 4* | 0 | | | | |

* Standardized test national percentages were not available.

Table 1.5

Standardized Test Gain Score Means for 1997-1998 Grade Five, Six, and Seven MiC Students in, by Teacher in District 1

| Grade/ Teacher ID | (N) | Spring 1997 Standardized Test Score Mean | Spring 1997 Standardized Test Score St Dev | Spring 1998 Standardized Test Score Mean | Spring 1998 Standardized Test Score St Dev | Standardized Test Gain Score Mean | Standardized Test Gain Score St Dev | Correlation Coefficient |
|-------------------------------|-----|---|---|---|---|---|---|----------------------------|
| <i>Grade 5 in Spring 1998</i> | | | | | | | | |
| 4 | 17 | 49.18 | 18.05 | 48.47 | 25.53 | -0.71 | 17.97 | 0.71 |
| 14 | 46 | 43.04 | 22.34 | 43.46 | 26.84 | 0.41 | 18.78 | 0.72 |
| 19 | 25 | 70.76 | 14.27 | 79.08 | 17.95 | 8.32 | 16.40 | 0.50 |
| 27 | 14 | 53.29 | 18.96 | 44.14 | 29.71 | -9.14 | 25.08 | 0.54 |
| 31 | 30 | 92.37 | 5.88 | 89.23 | 11.41 | -3.13 | 12.22 | 0.11 |
| 49 | 9 | 25.11 | 13.34 | 22.67 | 13.81 | -2.44 | 8.43 | 0.81 |
| <i>Grade 6 in Spring 1998</i> | | | | | | | | |
| 30 | 36 | 52.36 | 19.56 | 43.44 | 18.03 | -8.92 | 14.37 | 0.71 |
| 33 | 37 | 45.92 | 26.18 | 44.57 | 22.37 | -1.35 | 11.54 | 0.90 |
| 38 | 30 | 48.10 | 21.60 | 44.53 | 25.83 | -3.57 | 17.28 | 0.75 |
| <i>Grade 7 in Spring 1998</i> | | | | | | | | |
| 8 | 21 | 48.81 | 25.8 | 46.76 | 20.58 | -2.05 | 16.60 | 0.77 |
| 44 | 14 | 54.36 | 28.29 | 59.86 | 23.58 | 5.50 | 15.98 | 0.83 |

Table 1.6

Standardized Test Gain Score Means for 1997-1998 Grade Five, Six, and Seven MiC Students in, by Teacher in District 2

| Grade/ Teacher ID | (N) | Spring 1997 Standardized Test Score Mean | Spring 1997 Standardized Test Score St Dev | Spring 1998 Standardized Test Score Mean | Spring 1998 Standardized Test Score St Dev | Standardized Test Gain Score Mean | Standardized Test Gain Score St Dev | Correlation Coefficient |
|-------------------------------|-----|---|---|---|---|---|---|----------------------------|
| <i>Grade 5 in Spring 1998</i> | | | | | | | | |
| 2 | 22 | 67.14 | 22.72 | 61.91 | 25.62 | -5.23 | 17.10 | 0.76 |
| 12 | 29 | 50.72 | 28.02 | 45.38 | 28.24 | -5.34 | 16.20 | 0.83 |
| 22 | 19 | 67.00 | 21.62 | 62.37 | 25.60 | -4.63 | 18.43 | 0.71 |
| 26 | 62 | 57.79 | 28.73 | 55.13 | 29.19 | -2.66 | 14.20 | 0.88 |
| <i>Grade 6 in Spring 1998</i> | | | | | | | | |
| 37 | 38 | 55.92 | 25.53 | 43.61 | 25.92 | -12.32 | 15.86 | 0.81 |
| 45 | 36 | 71.94 | 22.08 | 58.33 | 25.76 | -13.61 | 14.03 | 0.84 |
| 51 | 37 | 51.27 | 25.9 | 44.86 | 24.87 | -6.41 | 16.80 | 0.78 |
| 52 | 27 | 33.81 | 25.45 | 28.56 | 22.88 | -5.26 | 19.59 | 0.68 |
| <i>Grade 7 in Spring 1998</i> | | | | | | | | |
| 11 | 36 | 43.61 | 21.91 | 38.14 | 21.28 | -5.47 | 15.47 | 0.74 |
| 20 | 41 | 49.22 | 23.38 | 53.32 | 22.01 | 4.10 | 19.27 | 0.64 |
| 35 | 34 | 46.35 | 27.02 | 51.47 | 27.29 | 5.12 | 18.93 | 0.76 |
| 47 | 41 | 39.34 | 23.62 | 36.44 | 20.4 | -2.90 | 17.53 | 0.69 |

Table 1.7

Standardized Test Gain Score Means for 1997-1998 Grade Five, Six, and Seven MiC Students in, by Teacher in District 3

| Grade/ Teacher ID | (N) | Spring 1997 Standardized Test Score Mean | Spring 1997 Standardized Test Score St Dev | Spring 1998 Standardized Test Score Mean | Spring 1998 Standardized Test Score St Dev | Standardized Test Gain Score Mean | Standardized Test Gain Score St Dev | Correlation Coefficient |
|-------------------------------|-----|---|---|---|---|---|---|----------------------------|
| <i>Grade 5 in Spring 1998</i> | | | | | | | | |
| 3 | 16 | 61.44 | 23.48 | 63.63 | 26.69 | 2.19 | 20.01 | 0.69 |
| 7 | 20 | 64.05 | 23.42 | 62.25 | 25.65 | -1.80 | 21.97 | 0.60 |
| 23 | 21 | 46.00 | 24.83 | 53.10 | 21.48 | 7.10 | 15.01 | 0.80 |
| 25 | 18 | 58.22 | 21.76 | 58.56 | 28.03 | 0.33 | 20.06 | 0.70 |
| 41 | 18 | 52.44 | 24.92 | 46.5 | 27.58 | -5.94 | 18.85 | 0.75 |
| 48 | 21 | 58.67 | 27.38 | 63.19 | 27.98 | 4.52 | 14.67 | 0.86 |
| <i>Grade 6 in Spring 1998</i> | | | | | | | | |
| 6 | 22 | 59.68 | 24.25 | 70.73 | 23.91 | 11.05 | 12.72 | 0.86 |
| 15 | 40 | 53.7 | 20.12 | 64.13 | 22.57 | 10.43 | 11.67 | 0.86 |
| 39 | 40 | 58.55 | 22.68 | 64.23 | 20.89 | 5.68 | 12.80 | 0.83 |
| 40 | 39 | 47.82 | 25.07 | 56.59 | 22.32 | 8.77 | 12.27 | 0.87 |
| 50 | 7 | 9.43 | 6.55 | 20.54 | 10.74 | 11.14 | 9.94 | 0.42 |
| <i>Grade 7 in Spring 1998</i> | | | | | | | | |
| 16 | 118 | 69.97 | 2.85 | 65.42 | 14.18 | -4.54 | 15.97 | 0.73 |

Table 1.8
Standardized Test Gain Score Means for 1998-1999 Grade Six, Seven, and Eight MiC Students in District 1

| Grade/ Teacher ID | (N) | Spring 1998 Standardized Test Score Mean | Spring 1998 Standardized Test Score St Dev | Spring 1999 Standardized Test Score Mean | Spring 1999 Standardized Test Score St Dev | Standardized Test Gain Score Mean | Standardized Test Gain Score St Dev | Correlation Coefficient |
|-------------------------------|-----|---|---|---|---|---|---|----------------------------|
| <i>Grade 6 in Spring 1999</i> | | | | | | | | |
| 33 | 17 | 68.47 | 68.47 | 65.35 | 29.96 | -3.12 | 18.66 | 0.79 |
| 38 | 11 | 63.45 | 6.45 | 76.91 | 30.23 | 13.45 | 9.52 | 0.95 |
| 67 | 14 | 54.00 | 32.00 | 47.79 | 31.76 | -6.21 | 15.38 | 0.88 |
| 73 | 9 | 89.44 | 8.09 | 86.44 | 21.59 | -3.00 | 24.25 | -0.16 |
| 78 | 3 | 81.00 | 3.46 | 89.67 | 14.43 | 8.67 | 13.05 | 0.50 |
| <i>Grade 7 in Spring 1999</i> | | | | | | | | |
| 8 | 19 | 41.58 | 21.44 | 24.95 | 24.95 | -16.63 | 15.63 | 0.69 |
| 64 | 1 | 57.00 | -- | 35.00 | -- | -22.00 | -- | -- |
| 74 | 17 | 49.29 | 20.35 | 39.59 | 25.43 | -9.71 | 20.77 | 0.61 |
| 88 | 32 | 43.75 | 20.33 | 31.47 | 20.19 | -12.28 | 17.42 | 0.63 |
| <i>Grade 8 in Spring 1999</i> | | | | | | | | |
| 75 | 6 | 58.00 | 22.12 | 47.50 | 23.72 | -10.50 | 10.88 | 0.89 |
| 87 | 18 | 47.39 | 20.59 | 52.22 | 27.37 | 4.83 | 18.92 | 0.72 |

Table 1.9

Standardized Test Gain Score Means for 1998-1999 Grade Six, Seven, and Eight MiC Students in District 2

| Grade/ Teacher ID | (N) | Spring 1998 Standardized Test Score Mean | Spring 1998 Standardized Test Score St Dev | Spring 1999 Standardized Test Score Mean | Spring 1999 Standardized Test Score St Dev | Standardized Test Gain Score Mean | Standardized Test Gain Score St Dev | Correlation Coefficient |
|-------------------------------|-----|---|---|---|---|---|---|----------------------------|
| <i>Grade 6 in Spring 1999</i> | | | | | | | | |
| 52 | 33 | 32.82 | 21.73 | 35.12 | 18.45 | 2.30 | 19.56 | 0.54 |
| 69 | 39 | 75.85 | 20.02 | 68.13 | 22.17 | -7.72 | 16.56 | 0.70 |
| 83 | 37 | 40.08 | 26.09 | 27.59 | 20.57 | -12.49 | 16.04 | 0.79 |
| 85 | 39 | 55.31 | 26.04 | 36.31 | 22.62 | -19.00 | 20.56 | 0.65 |
| <i>Grade 7 in Spring 1999</i> | | | | | | | | |
| 45 | 29 | 48.55 | 20.99 | 42.97 | 23.18 | -5.59 | 15.40 | 0.76 |
| 62 | 49 | 32.45 | 23.45 | 34.96 | 23.09 | 2.51 | 16.03 | 0.76 |
| 70 | 64 | 24.39 | 19.85 | 28.34 | 21.30 | 3.95 | 18.72 | 0.59 |
| 80 | 48 | 39.19 | 24.90 | 36.88 | 23.93 | -2.31 | 12.97 | 0.86 |
| <i>Grade 8 in Spring 1999</i> | | | | | | | | |
| 20 | 33 | 51.00 | 20.86 | 57.94 | 21.18 | 6.94 | 17.91 | 0.64 |
| 47 | 41 | 31.71 | 19.19 | 39.49 | 21.78 | 7.78 | 15.67 | 0.71 |

Table 1. 10
Standardized Test Gain Score Means for 1998-1999 Grade Six, Seven, and Eight MiC Students in District 3

| Grade/ Teacher ID | (N) | Spring 1998 Standardized Test Score Mean | Spring 1998 Standardized Test Score St Dev | Spring 1999 Standardized Test Score Mean | Spring 1999 Standardized Test Score St Dev | Standardized Test Gain Score Mean | Standardized Test Gain Score St Dev | Correlation Coefficient |
|-------------------------------|-------|---|---|---|---|---|---|----------------------------|
| <i>Grade 6 in Spring 1999</i> | | | | | | | | |
| 6 | 35 | 59.60 | 25.61 | 70.51 | 25.21 | 10.91 | 13.73 | 0.85 |
| 15 | 37 | 57.65 | 28.36 | 59.81 | 22.58 | 2.16 | 15.96 | 0.83 |
| 40 | 30 | 53.93 | 27.54 | 58.83 | 26.62 | 4.90 | 16.17 | 0.82 |
| 50 | 2 | 12.50 | 0.71 | 21.00 | 1.41 | 8.50 | 0.71 | 1.00 |
| <i>Grade 7 in Spring 1999</i> | | | | | | | | |
| 9 | 7 | 18.29 | 9.32 | 12.43 | 5.35 | -5.86 | 10.43 | 0.07 |
| 16 | 105 | 64.13 | 22.28 | 58.15 | 23.77 | -5.98 | 13.82 | 0.82 |
| <i>Grade 8 in Spring 1999</i> | | | | | | | | |
| 71 | 59.00 | 54.66 | 19.43 | 62.24 | 19.21 | 7.58 | 14.89 | 0.70 |

Table 1.11

Standardized Test Gain Score Means for 1999-2000 Grade Seven and Eight MiC Students in District 1

| Grade/ Teacher ID | (N) | Spring 1999 Standardized Test Score Mean | Spring 1999 Standardized Test Score St Dev | Spring 2000 Standardized Test Score Mean | Spring 2000 Standardized Test Score St Dev | Standardized Test Gain Score Mean | Standardized Test Gain Score St Dev | Correlation Coefficient |
|-------------------------------|-----|---|---|---|---|---|---|----------------------------|
| <i>Grade 7 in Spring 2000</i> | | | | | | | | |
| 13 | 7 | 37.57 | 25.99 | 40.57 | 24.23 | 3.00 | 28.38 | 0.36 |
| 74 | 34 | 67.03 | 29.11 | 63.24 | 28.16 | -3.79 | 15.78 | 0.85 |
| 90 | 27 | 77.63 | 26.51 | 70.26 | 22.44 | -7.37 | 19.27 | 0.70 |
| <i>Grade 8 in Spring 2000</i> | | | | | | | | |
| 75 | 32 | 39.22 | 25.76 | 45.69 | 20.92 | 6.47 | 16.79 | 0.76 |
| 91 | 13 | 22.15 | 15.72 | 37.23 | 18.48 | 15.08 | 14.90 | 0.63 |
| 98 | 39 | 38.36 | 25.71 | 51.72 | 25.11 | -0.36 | 21.98 | 0.62 |

Table 1.12

Standardized Test Gain Score Means for 1999-2000 Grade Seven and Eight MiC Students in District 2

| Grade/ Teacher ID | (N) | Spring 1999 Standardized Test Score Mean | Spring 1999 Standardized Test Score St Dev | Spring 2000 Standardized Test Score Mean | Spring 2000 Standardized Test Score St Dev | Standardized Test Gain Score Mean | Standardized Test Gain Score St Dev | Correlation Coefficient |
|-------------------------------|-----|---|---|---|---|---|---|----------------------------|
| <i>Grade 7 in Spring 2000</i> | | | | | | | | |
| 52 | 15 | 37.47 | 14.57 | 29.47 | 20.51 | -8.00 | 17.30 | 0.89 |
| 69 | 28 | 71.61 | 22.74 | 75.93 | 18.96 | 4.32 | 17.93 | -0.66 |
| 94 | 16 | 46.00 | 26.85 | 50.94 | 21.74 | 4.94 | 18.12 | -0.04 |
| <i>Grade 8 in Spring 2000</i> | | | | | | | | |
| 45 | 15 | 54.07 | 23.04 | 58.00 | 20.03 | 5.93 | 16.39 | 0.91 |
| 62 | 20 | 49.60 | 28.51 | 57.30 | 25.57 | 7.70 | 21.98 | -0.83 |
| 70 | 43 | 32.09 | 23.38 | 40.12 | 22.09 | 8.02 | 26.84 | 0.57 |
| 95 | 12 | 22.75 | 19.30 | 27.17 | 18.58 | 4.42 | 22.67 | 0.51 |

Table 1.13

Standardized Test Gain Score Means for 1999-2000 Grade Seven and Eight MiC Students in District 3

| Grade/ Teacher ID | (N) | Spring 1999 Standardized Test Score Mean | Spring 1999 Standardized Test Score St Dev | Spring 2000 Standardized Test Score Mean | Spring 2000 Standardized Test Score St Dev | Standardized Test Gain Score Mean | Standardized Test Gain Score St Dev | Correlation Coefficient |
|-------------------------------|-----|---|---|---|---|---|---|----------------------------|
| <i>Grade 7 in Spring 2000</i> | | | | | | | | |
| 9 | 2 | 21.00 | 1.41 | 26.50 | 4.95 | 5.50 | 3.54 | 1.00 |
| 16 | 93 | 61.45 | 25.30 | 59.63 | 24.49 | -1.82 | 14.40 | 0.83 |
| <i>Grade 8 in Spring 2000</i> | | | | | | | | |
| 9 | 7 | 18.14 | 15.86 | 11.00 | 7.30 | -7.14 | 12.77 | 0.61 |
| 71 | 43 | 38.60 | 17.23 | 52.23 | 19.23 | 13.63 | 17.16 | 0.56 |

Conventional Classrooms

Table 2.1
Overall Standardized Test Gain Scores for the Eight Grade-Level-by-Year Studies in Conventional Classrooms in 1997-1998, 1998-1999 and 1999-2000

| Year | Grade | (N) | Previous Year Standardized Test Mean | End of Year Standardized Test Mean | Standardized Test Gain Score Mean | StDev |
|--------|---------|-----|--|--|---|-------|
| Year 1 | | | | | | |
| | Grade 5 | 79 | 80.05 | 80.91 | 0.86 | 13.19 |
| | Grade 6 | 57 | 50.56 | 40.16 | -10.40 | 20.22 |
| | Grade 7 | 78 | 43.22 | 39.56 | -3.65 | 17.68 |
| Year 2 | | | | | | |
| | Grade 6 | 48 | 72.56 | 65.85 | -6.71 | 18.86 |
| | Grade 7 | 29 | 34.45 | 34.38 | -0.07 | 18.42 |
| | Grade 8 | 59 | 41.22 | 38.86 | -2.36 | 21.89 |
| Year 3 | | | | | | |
| | Grade 7 | 25 | 52.76 | 61.16 | 8.40 | 16.43 |
| | Grade 8 | 40 | 66.43 | 59.88 | -6.55 | 22.77 |

Table 2.2
Standardized Test Gain Scores for Grade Five, Six, and Seven Students in Conventional Classrooms in 1998-1999 by District

| District | Standardized Test Gain Score | | | | | |
|------------|------------------------------|-------|---------|--------|---------|-------|
| | Grade 5 | | Grade 6 | | Grade 7 | |
| | (N) | Mean | (N) | Mean | (N) | Mean |
| District 1 | 40 | 2.00 | 19 | -1.26 | 52 | -3.29 |
| District 2 | 39 | -0.31 | 38 | -14.97 | 26 | -4.38 |

Table 2.3
Standardized Test Gain Scores for Grade Six, Seven, and Eight Students in Conventional Classrooms in 1998-1999, by District

| District | Standardized Test Gain Score | | | | | |
|------------|------------------------------|--------|---------|-------|---------|-------|
| | Grade 6 | | Grade 7 | | Grade 8 | |
| | (N) | Mean | (N) | Mean | (N) | Mean |
| District 1 | 1 | -15.00 | 17 | -2.18 | 29 | -5.38 |
| District 2 | 47 | -6.53 | 12 | 2.92 | 30 | 0.57 |

Table 2.4
Standardized Test Gain Scores for Grade Six, Seven, and Eight Students in Conventional Classrooms in 1999-2000, by District

| District | Standardized Test Gain Score Means | | | |
|------------|------------------------------------|-------|---------|-------|
| | Grade 7 | | Grade 8 | |
| | (N) | Mean | (N) | Mean |
| District 1 | 6 | -2.83 | 40 | -6.55 |
| District 2 | 19 | 11.95 | 0 | |

Table 2.5
*Standardized Test Gain Score Means for 1997-1998 Grade Five, Six,
 and Seven Students in Conventional Classrooms, by Teacher in
 Districts 1 and 2*

| District 1 | | | District 2 | | |
|----------------------|-----|---|----------------------|-----|---|
| Grade/ Teacher ID | (N) | Standardized Test Gain Score Mean | Grade/ Teacher ID | (N) | Standardized Test Gain Score Mean |
| Grade 5 | | | | | |
| 17 | 11 | 4.55 | 43 | 39 | -0.31 |
| 42 | 29 | 1.03 | | | |
| Grade 6 | | | | | |
| 18 | 5 | -5.60 | 10 | 20 | -11.90 |
| 32 | 14 | 0.29 | 21 | 18 | -18.39 |
| Grade 7 | | | | | |
| 13 | 28 | -0.18 | 5 | 24 | -4.33 |
| 53 | 24 | -6.92 | 24 | 2 | -5.00 |

Table 2.6
Standardized Test Gain Score Means for 1998-1999 Grade Six, Seven, and Eight Students in Conventional Classrooms in Districts 1 and 2

| District 1 | | | District 2 | | |
|----------------------|-----|---|----------------------|-----|---|
| Grade/ Teacher ID | (N) | Standardized Test Gain Score Mean | Grade/ Teacher ID | (N) | Standardized Test Gain Score Mean |
| Grade 6 | | | | | |
| 79 | 1 | -15.00 | 21 | 20 | -13.15 |
| | | | 82 | 27 | -1.63 |
| Grade 7 | | | | | |
| 13 | 3 | 9.00 | 5 | 12 | 2.92 |
| 76 | 7 | -17.29 | | | |
| 77 | 7 | 8.14 | | | |
| Grade 8 | | | | | |
| 60 | 3 | 17.00 | 5 | 26 | -0.04 |
| 86 | 26 | -7.96 | 24 | 4 | 4.50 |

Table 2.7
Standardized Test Gain Score Means for 1999-2000 Grade Seven and Eight Students in Conventional Classrooms in Districts 1 and 2

| District 1 | | | District 2 | | |
|----------------------|-----|---|----------------------|-----|---|
| Grade/ Teacher ID | (N) | Standardized Test Gain Score Mean | Grade/ Teacher ID | (N) | Standardized Test Gain Score Mean |
| Grade 7 | | | | | |
| 77 | 6 | -2.83 | 82 | 19 | 11.95 |
| Grade 8 | | | | | |
| 86 | 37 | -6.76 | (none) | | |
| 92 | 3 | -4.00 | | | |