

July 30, 2001

## **Survey Report #4: Results from The MSIP Student Questionnaire, Spring 2001**

**Results from a spring administration of the MSIP Elementary Student Questionnaire show that fourth grade students enrolled in eMINTS classrooms rate their school climate and expectations for learning higher than students not in eMINTS classrooms. However, there were no statistically significant differences among third grade students. These results will be used in estimating the impact of the eMINTS experience on student performance on the MAP test.**

### **Administration of the MSIP Elementary Student Questionnaire**

In preparation for the analysis of the impact of the eMINTS classrooms on student MAP test scores, students in eMINTS grades in participating FY00 schools completed the Missouri School Improvement Program (MSIP) Elementary Student Questionnaire. All classroom teachers in the grades having FY00 eMINTS classrooms administered this questionnaire. Information from this questionnaire will be used to estimate the effect of aggregate student opinions on student achievement. This analysis compares opinions from students in eMINTS classrooms with the opinions of students not in eMINTS classrooms.

Based on information received from eMINTS schools, 306 teachers taught 6554 students in eMINTS grades. The administration of the questionnaires to students yielded 5537 responses from 282 teachers, resulting in a response rate of 84.5 percent.

The grade distribution of student responses is presented in Table 1. According to the first panel of Table 1, 96.8 percent of all responding students were in third or fourth grade. The results below summarize scale results for third and fourth graders, and compares students in eMINTS classes with students not in eMINTS classes within each grade.

The bulk of the MSIP Elementary Student Questionnaire is taken up with two additive scales, one measuring students' perspective of their school climate and another measuring students' perspective on their teachers' expectation for learning. All of the items in these scales were scored between 1 and 5. The resulting scales were adjusted to account for the number of items, so that their final scale has a range from 1 to 5.

After a brief discussion of the gender distribution among students in responding classrooms, the characteristics of these scales and the differences between eMINTS and non-eMINTS classrooms are discussed.

This report is one product of the eMINTS evaluation project. Other reports and their overall evaluation plan are available at <http://emints.more.net/evaluation>.

The eMINTS Evaluation focuses on student impacts, teacher impacts, changes in learning environments, and outcomes of project services.

**Table 1**  
**Student Grade-Level Distribution by Enrollment in eMINTS Classroom**  
**(by Percent)**

Grade Level	Enrollment in eMINTS Classroom?		
	No	Yes	All Students
	Column Percents		
3	34.6	25.5	31.9
4	62.6	70.4	64.9
5	2.8	4.0	3.2
Total	100.0	100.0	100.0
	Row Percents		
3	76.4	23.6	100.0
4	68.0	32.0	100.0
5	62.3	37.7	100.0
Total	70.5	29.5	100.0
Number of Students	3904	1633	5537
	Number of Classrooms		
	Non-eMINTS	eMINTS	All Classrooms
3	71	21	92
4	127	57	184
5	5	3	8
Total	203	81	284

### Student Gender Distribution

As seen in Table 2, there are no statistically significant differences in the gender distribution of responding students in the eMINTS grades. The gender distribution is approximately equal for both types of classrooms (i.e., eMINTS and non-eMINTS) in each grade.

**Table 2**  
**Student Gender by Enrollment in eMINTS Classroom, Grades 3 and 4**  
**(by Percent)**

	<u>Enrolled in eMINTS Classroom?</u>		
	No	Yes	All Students
<u>Grade 3</u>			
Male	50.7	48.9	50.3
Female	49.3	51.1	49.7
Total	100.0	100.0	100.0
Number of Students	1338	415	1753
<i>P-Value</i>	<i>0.5317</i>		
<u>Grade 4</u>			
Male	52.9	52.9	52.9
Female	47.1	47.1	47.1
Total	100.0	100.0	100.0
Number of Students	2408	1136	3544
<i>P-Value</i>	<i>0.9806</i>		
<u>Grades 3 and 4</u>			
Male	52.1	51.8	52.0
Female	47.9	48.2	48.0
Total	100.0	100.0	100.0
Number of Students	3746	1551	5297
<i>P-Value</i>	<i>0.8337</i>		

**Table 3**  
**Overall Characteristics of MSIP Scale Scores**

Scale	Mean	Standard Deviation	Number of Items	Alpha
<u>Grade 3</u>				
School Climate Scale	4.44	0.59	11	0.870
Learning Expectations Scale	4.77	0.44	3	0.543
<u>Grade 4</u>				
School Climate Scale	4.30	0.66	11	0.893
Learning Expectations Scale	4.72	0.45	3	0.550

**Table 4**  
**Scale Differences by Grade and eMINTS Status**

	<u>Students Enrolled in eMINTS Classroom?</u>			P-Value
	No	Yes	All Students	
<i>Grade 3</i>				
<u>School Climate Scale</u>				
Mean	4.45	4.40	4.44	0.1431
Standard Deviation	0.59	0.61	0.59	
Number of Observations	1350	417	1767	
 <u>Learning Expectations Scale</u>				
Mean	4.78	4.74	4.77	0.1718
Standard Deviation	0.43	0.45	0.44	
Number of Observations	1350	417	1767	
 <i>Grade 4</i>				
<u>School Climate Scale</u>				
Mean	4.26	4.38	4.30	<0.0001
Standard Deviation	0.70	0.55	0.66	
Number of Observations	2438	1148	3586	
 <u>Learning Expectations Scale</u>				
Mean	4.71	4.76	4.72	0.0004
Standard Deviation	0.47	0.40	0.45	
Number of Observations	2438	1148	3586	

### **Scale Characteristics**

The MSIP Elementary Student Questionnaire contains two additive scales, one measuring student perspectives on school climate and another measuring student perception of learning expectations. The overall characteristics of the scales are presented in Table 3. These scales are internally consistent; for both grades the alpha for the school climate scale is nearly 0.90 while the alpha for the learning expectation scale is 0.543 for students in the third grade and 0.550 for students in the fourth grade.

Table 4 compares scale differences by their eMINTS status for each grade. The first panel compares the scale scores for students in the third grade. These differences are not statistically significant.

The second panel of Table 4 compares scores for students in the fourth grade. Here, the differences are statistically significant. On average, fourth grade students in eMINTS classrooms rated their school climate higher and learning expectations higher than did students not in eMINTS classrooms.

This overall pattern seen in Table 4, i.e., no significant differences among third grade students but statistically significant improvements among fourth graders, is reported in the individual items in Tables A.1 and A.2 in the appendix. Only a few individual items differ from this pattern. For example, among third graders three items: “This school is a good place to learn”, “Teachers in my school care about me” and “I feel safe at school” show statistically significant differences, with students in the eMINTS classrooms rating these items lower than students in non-eMINTS classrooms.

Among fourth graders, all but two items show a statistically significant difference. All students rated the items “Discipline is handled fairly in my school” and “My teachers expect very good work from me” equally. All other items showed a statistically significant difference, with eMINTS students rating the items higher than non-eMINTS students.

### **Conclusion**

These results show a set of consistent differences within third and fourth grade students enrolled in eMINTS schools, although these results are different between grades. The ratings of third grade students in eMINTS classrooms did not differ significantly from students not in eMINTS classrooms. In contrast, the ratings of fourth grade students in eMINTS classrooms are significantly higher than students not in eMINTS classrooms. That is, fourth graders in eMINTS classrooms rate their school climate higher and perceive higher expectations for their learning than do students not in eMINTS classrooms.

The ratings of school climate and learning expectation from the MSIP Elementary Student Questionnaire have been compiled at the classroom level and are being stored in the eMINTS evaluation database. These variables will be used to estimate classroom-level effects in the analysis of MAP scores to be conducted in the Fall of 2001.

## Appendix

**Table A.1**  
**MSIP Scale and Item Scores, Grade 3**

	Student Enrollment Status			P-Value
	Non-eMINTS Classroom	eMINTS Classroom	All Students	
<i>School Climate Scale</i>				
Mean	4.45	4.40	4.44	0.1431
Standard Deviation	0.59	0.61	0.59	
Number of Observations	1350	417	1767	
<u>I am treated fairly at school.</u>				
Mean	4.16	4.15	4.16	0.8610
Standard Deviation	1.02	1.01	1.02	
Number of Observations	1346	417	1763	
<u>Discipline is handled fairly in my school.</u>				
Mean	4.24	4.15	4.22	0.1265
Standard Deviation	1.04	1.07	1.04	
Number of Observations	1347	417	1764	
<u>I have fun learning.</u>				
Mean	4.29	4.33	4.30	0.3813
Standard Deviation	0.99	0.93	0.98	
Number of Observations	1346	416	1762	
<u>My teachers are good teachers.</u>				
Mean	4.71	4.71	4.71	0.8808
Standard Deviation	0.70	0.69	0.70	
Number of Observations	1343	415	1758	
<u>This school is a good place to learn.</u>				
Mean	4.59	4.50	4.57	0.0496
Standard Deviation	0.78	0.86	0.80	
Number of Observations	1346	417	1763	
<u>My teachers make learning interesting.</u>				
Mean	4.43	4.40	4.42	0.6072
Standard Deviation	0.88	0.88	0.88	
Number of Observations	1340	417	1757	
<u>Teachers in my school really care about me.</u>				
Mean	4.62	4.50	4.59	0.0134
Standard Deviation	0.75	0.89	0.79	
Number of Observations	1343	417	1760	

**(Continued.)**

**Table A.1 (Continued.)**

	Student Enrollment Status			P-Value
	Non-eMINTS Classroom	eMINTS Classroom	All Students	
<u>If a student has a problem there are teachers who will listen and help.</u>				
Mean	4.54	4.50	4.53	0.4140
Standard Deviation	0.82	0.87	0.83	
Number of Observations	1343	416	1759	
<u>Teachers treat me with respect.</u>				
Mean	4.55	4.47	4.53	0.1156
Standard Deviation	0.78	0.90	0.81	
Number of Observations	1343	417	1760	
<u>My teachers make clear what I am supposed to learn</u>				
Mean	4.42	4.39	4.41	0.4465
Standard Deviation	0.83	0.84	0.83	
Number of Observations	1344	416	1760	
<u>I feel safe at school.</u>				
Mean	4.41	4.28	4.38	0.0359
Standard Deviation	1.04	1.10	1.05	
Number of Observations	1334	414	1748	
<i>Learning Expectations Scale</i>				
Mean	4.78	4.74	4.77	0.1718
Standard Deviation	0.43	0.45	0.44	
Number of Observations	1350	417	1767	
<u>My teachers think I can learn.</u>				
Mean	4.74	4.73	4.74	0.7476
Standard Deviation	0.65	0.64	0.65	
Number of Observations	1345	413	1758	
<u>My family believes that I can do well in school</u>				
Mean	4.85	4.81	4.84	0.1770
Standard Deviation	0.48	0.59	0.50	
Number of Observations	1339	411	1750	
<u>My teachers expect very good work from me.</u>				
Mean	4.74	4.70	4.73	0.2813
Standard Deviation	0.62	0.65	0.63	
Number of Observations	1332	414	1746	

**(Continued.)**

**Table A.1 (Continued.)**

	Student Enrollment Status			P-Value
	Non-eMINTS Classroom	eMINTS Classroom	All Students	
<i>Not in Scale</i>				
<u>Students behave well in this school.</u>				
Mean	3.29	3.31	3.30	0.7250
Standard Deviation	1.09	1.07	1.09	
Number of Observations	1340	416	1756	
<u>The community is proud of this school.</u>				
Mean	4.39	4.31	4.37	0.1192
Standard Deviation	0.87	0.86	0.87	
Number of Observations	1336	416	1752	
<u>I like going to this school.</u>				
Mean	4.40	4.33	4.38	0.2615
Standard Deviation	1.04	1.16	1.07	
Number of Observations	1333	413	1746	
<u>Students at my school are friendly.</u>				
Mean	3.65	3.64	3.65	0.8155
Standard Deviation	1.08	1.07	1.08	
Number of Observations	1341	413	1754	

**Table A.2**  
**MSIP Scale and Item Scores, Grade 4**

	Student Enrollment Status			P-Value
	Non-eMINTS Classroom	eMINTS Classroom	All Students	
<i>School Climate Scale</i>				
Mean	4.26	4.38	4.30	<0.0001
Standard Deviation	0.70	0.55	0.66	
Number of Observations	2438	1148	3586	
<u>I am treated fairly at school.</u>				
Mean	4.03	4.13	4.06	0.0060
Standard Deviation	1.02	0.93	1.00	
Number of Observations	2431	1147	3578	
<u>Discipline is handled fairly in my school.</u>				
Mean	4.08	4.10	4.08	0.4817
Standard Deviation	1.07	1.03	1.05	
Number of Observations	2429	1143	3572	
<u>I have fun learning.</u>				
Mean	4.05	4.23	4.11	<0.0001
Standard Deviation	1.08	0.96	1.04	
Number of Observations	2427	1144	3571	
<u>My teachers are good teachers.</u>				
Mean	4.60	4.71	4.63	<0.0001
Standard Deviation	0.79	0.63	0.74	
Number of Observations	2426	1147	3573	
<u>This school is a good place to learn.</u>				
Mean	4.39	4.52	4.43	<0.0001
Standard Deviation	0.89	0.72	0.84	
Number of Observations	2424	1143	3567	
<u>My teachers make learning interesting.</u>				
Mean	4.24	4.42	4.30	<0.0001
Standard Deviation	0.99	0.81	0.94	
Number of Observations	2408	1138	3546	
<u>Teachers in my school really care about me.</u>				
Mean	4.41	4.48	4.43	0.0157
Standard Deviation	0.92	0.82	0.89	
Number of Observations	2423	1145	3568	

**(Continued.)**

**Table A.2 (Continued.)**

	Student Enrollment Status			P-Value
	Non-eMINTS Classroom	eMINTS Classroom	All Students	
<u>If a student has a problem there are teachers who will listen and help.</u>				
Mean	4.39	4.50	4.42	0.0002
Standard Deviation	0.96	0.77	0.90	
Number of Observations	2414	1145	3559	
<u>Teachers treat me with respect.</u>				
Mean	4.32	4.43	4.35	0.0003
Standard Deviation	0.97	0.80	0.92	
Number of Observations	2428	1144	3572	
<u>My teachers make clear what I am supposed to learn</u>				
Mean	4.28	4.35	4.30	0.0162
Standard Deviation	0.89	0.81	0.86	
Number of Observations	2416	1139	3555	
<u>I feel safe at school.</u>				
Mean	4.13	4.29	4.18	<0.0001
Standard Deviation	1.19	1.06	1.15	
Number of Observations	2408	1137	3545	
<i>Learning Expectations Scale</i>				
Mean	4.71	4.76	4.72	0.0004
Standard Deviation	0.47	0.40	0.45	
Number of Observations	2438	1148	3586	
<u>My teachers think I can learn.</u>				
Mean	4.68	4.77	4.71	<0.0001
Standard Deviation	0.69	0.56	0.65	
Number of Observations	2408	1143	3551	
<u>My family believes that I can do well in school</u>				
Mean	4.81	4.86	4.83	0.0022
Standard Deviation	0.54	0.44	0.51	
Number of Observations	2411	1137	3548	
<u>My teachers expect very good work from me.</u>				
Mean	4.63	4.65	4.64	0.5217
Standard Deviation	0.69	0.65	0.68	
Number of Observations	2419	1143	3562	

**(Continued.)**

**Table A.2 (Continued.)**

	Student Enrollment Status			P-Value
	Non-eMINTS Classroom	eMINTS Classroom	All Students	
<i>Not in Scale</i>				
<u>Students behave well in this school.</u>				
Mean	3.24	3.32	3.27	0.0333
Standard Deviation	1.03	0.93	1.00	
Number of Observations	2428	1143	3571	
<u>The community is proud of this school.</u>				
Mean	4.20	4.36	4.25	<0.0001
Standard Deviation	0.95	0.83	0.91	
Number of Observations	2432	1144	3576	
<u>I like going to this school.</u>				
Mean	4.12	4.33	4.19	<0.0001
Standard Deviation	1.17	1.02	1.13	
Number of Observations	2408	1143	3551	
<u>Students at my school are friendly.</u>				
Mean	3.52	3.69	3.57	<0.0001
Standard Deviation	1.05	0.97	1.03	
Number of Observations	2414	1145	3559	