

# **AN EVALUATION OF THE 2006-2007 REASONING MIND PROGRAM**

Submitted to  
**Reasoning Mind, Inc.**  
410 Pierce Street  
Houston, Texas 77002

Submitted by  
**Hersh C. Waxman**  
Professor and Executive Director,  
State of Texas Education Research Center at Texas A&M University  
Texas A&M University

**W. Robert Houston**  
John and Rebecca Moores Professor and Executive Director,  
Institute of Urban Education  
University of Houston

**January 2008**

# Evaluation of Reasoning Mind 2006-2007

## Executive Summary

The achievement results, teacher questionnaire, and student questionnaire corroborate the positive effects of the Reasoning Mind program. There were statistically and educationally significant achievement gains made by Reasoning Mind students in two schools (Angleton Middle School and Cornelius Elementary School) that used a pretest-posttest control group design with randomization. The effect size ( $d$ ) of .80 for Angleton Middle School suggests that students in the Reasoning Mind program scored approximately 29% higher than students in the control group on the Reasoning Mind achievement test. The effect size ( $d$ ) of .53 for Cornelius Elementary School suggests that students in the Reasoning Mind program scored approximately 20% higher than students in the control group on the Reasoning Mind achievement test.

Wilson Intermediate School students in the Reasoning Mind program scored higher on the adjusted Reasoning Mind posttest than control students at a probability level that approached statistical significance ( $p < .071$ ). The effect size ( $d$ ) of .43 suggests that students in the Reasoning Mind program scored approximately 17% higher than students in the control group on the Reasoning Mind achievement test.

Furthermore, teachers overwhelmingly viewed the program as positive. They especially thought that the Reasoning Mind program was very good for students because it: (a) would re-teach objectives that students missed, (b) provided immediate feedback to students, and (c) helped students develop problem-solving skills. All the teachers also said that it was a useful tool for them because it: (a) helped them learn new math skills, (b) showed them new ways to teach some objectives, and (c) provided them with immediate relevant information about student progress. Students similarly had very positive attitudes toward the Reasoning Mind program; over 75% of them indicated that they would prefer to learn math in a RM City in the future.

The lack of significant differences between the experimental and control students on TAKS achievement gains may be due to the lower stability and reliability of TAKS scores, especially from one year to the next. The lack of significant differences also may be due to the lower content validity of TAKS to the Reasoning Mind curriculum, which emphasizes problem solving and other higher-level thinking skills. The RM math achievement tests have been found to be very reliable and valid; consequently, it is more likely to show achievement differences between groups.

Overall, the findings from this evaluation suggest that the Reasoning Mind program has been highly effective and the mathematics achievement index for the two schools that employed “true” experimental designs were comparable or higher than other mathematics curricula and materials that are evaluated and listed on the Institute for Education Sciences’ *What Works Clearinghouse*.

## Table of Contents

1. Executive Summary	2
2. Evaluation of Reasoning Mind 2006-2007	4
3. Reasoning Mind Math Achievement Results	5
4. TAKS Achievement Test Results	9
5. Teacher Survey Results	12
6. Student Survey Results	14
7. Findings and Conclusions	16
Appendices	18
A. Teachers' Open-Ended Responses to Questionnaire Items	18
B. Students' Open-Ended Responses to Questionnaire Items	22
What did you like about learning math in RM City?	22
What did you dislike about learning math in RM City?	28
Is there anything else you'd like to say about RM?	33

## **Evaluation of Reasoning Mind 2006-2007**

This evaluation is organized into the following five major sections: (a) Reasoning Mind Math Achievement Results, (b) TAKS Achievement Test Results, (c) Teacher Questionnaire Results, (d) Student Questionnaire Results, and (e) Conclusions.

A true, randomized pretest-posttest control group experimental design was implemented in two schools, Angleton Middle School and Cornelius Elementary School. In those two schools, fifth-grade students were randomly assigned to the Reasoning Mind program or a traditional mathematics program. A true, randomized experimental design also was proposed for fifth-grade students at Wilson Intermediate School, but a non-randomized group of students were selected for the program. As will be discussed later, this non-randomized group of students had more variation in test scores than either the experimental or control group at Wilson Intermediate School.

Students from all three schools were administered the Reasoning Mind Math Pretest at the beginning of the year (Fall 2006) and the Reasoning Mind Posttest at the end of school year (Spring 2007). Students' 2006 math scores (pretest) on the Texas Assessment of Knowledge and Skills (TAKS) also were collected as were their TAKS 2007 math scores (posttest). An analysis of covariance (ANCOVA) approach was employed, using the students' posttest scores as the dependent variable, their pretest scores as the covariate, and their group assignment (i.e., experimental or control) as the main factor of interest. In the case of Wilson Intermediate School, three group differences (i.e., control, experimental, and non-experimental) were compared in the ANCOVA analyses.

Teachers and students in the Reasoning Mind program completed brief questionnaires examining their perceptions of the program. The descriptive findings from the questionnaires are reported and teacher and student open-ended comments are included in the appendices.

## Results of Analysis of Reasoning Mind, 2006-2007

The purpose of *Reasoning Mind* is to enhance student achievement in mathematics. It has been tested through three iterations involving fifth grade students. The current report summarizes data on the extent to which the Reasoning Mind program was effective in enhancing fifth-grade student achievement in mathematics in three schools during 2006-2007.

An Analysis of Covariance (ANCOVA) was used to maximize power in order to detect the treatment effect of Reasoning Mind. A one-way ANCOVA was conducted, using the treatment (i.e., experimental/control group) as the between-subject factor, the Reasoning Mind posttest as the dependent measure, and the Reasoning Mind pretest as the covariate. The results are reported separately by school in the following sections, and then summarized as Findings and Conclusions of this study.

### Reasoning Mind Math Achievement Test Results

#### Reasoning Mind Achievement Test Results for Angleton Middle School

Table 1 reports the ANCOVA results for Angleton Middle School. ANCOVA was used to examine the effects of the treatment (i.e., Reasoning Mind program) on students' post-achievement RM mathematics scores. The ANCOVA results, using RM posttest as the dependent measure, control/experimental group as the fixed effect, and the RM pretest as the covariate, indicated that the experimental group's posttest scores (adjusted mean=19.549) were significantly higher [ $F(1,360) = 35.223, p < .001$ ] than those of the control group (adjusted mean =16.589).

**Table 1**  
**ANCOVA RM Achievement Test Results**  
**for Angleton Middle School**

Dependent Variable: RM Posttest

Source	Type III Sum of Squares	df	Mean Square	F	<i>p</i>	Partial <i>Eta squared</i>
Corrected Model	5096.657 <sup>a</sup>	2	2548.329	187.464	.000	.510
Intercept	619.003	1	619.003	45.536	.000	.112
RM Pretest	4634.176	1	4634.176	340.906	.000	.486
Experimental/Control	478.807	1	478.807	35.223	.000	.089
Error	4893.729	360	13.594			
Total	116570.000	363				
Corrected Total	9990.386	362				

<sup>a</sup> R Squared = .510 (Adjusted R Squared = .507)

The adjusted means for the control and experimental groups are reported as 16.589 and 19.549 in Table 2. The standard error was .214 for the control group and .450 for the experimental group. The partial *eta squared* of .089 indicates a moderate to strong relationship between the RM

posttest and the treatment, controlling for the RM pretest. The effect size  $d = .802$  also indicates that the treatment had a large effect on the RM posttest. ( $d = M_1 - M_2 / \sigma_{pooled}$ ).

**Table 2**  
***Adjusted Means for the Control and Experimental Groups***  
***at Angleton Middle School***

Dependent Variable: RM Posttest

Experimental/Control	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	16.589 <sup>a</sup>	.214	16.167	17.010
Experimental	19.549 <sup>a</sup>	.450	18.663	20.435

<sup>a</sup> Covariates appearing in the model are evaluated at the following values: RM Pretest = 15.38.

### **Reasoning Mind Achievement Test Results** **for Cornelius Elementary School**

Table 3 reports the ANCOVA results for Cornelius Elementary School. ANCOVA was used to examine the effects of the treatment (i.e., Reasoning Mind program) on students' RM post-achievement Reasoning Mind mathematics scores. The ANCOVA results indicate that the experimental group's posttest scores (adjusted mean=17.326) were significantly higher [ $F(1,110) = 7.944, p = .006$ ] than those of the control group (adjusted mean =14.979).

**Table 3**  
**ANCOVA Reasoning Mind Achievement Test Results**  
**for Cornelius Elementary School**

Dependent Variable: RM Post-test

Source	Type III Sum of Squares	df	Mean Square	F	<i>p</i>	Partial <i>Eta squared</i>
Corrected Model	2625.271 <sup>a</sup>	2	1312.636	68.086	.000	.553
Intercept	4.961	1	4.961	.257	.613	.002
RM Pretest	2400.735	1	2400.735	124.526	.000	.531
Experimental/Control	153.154	1	153.154	7.944	.006	.067
Error	2120.693	110	19.279			
Total	33738.000	113				
Corrected Total	4745.965	112				

<sup>a</sup> *R-Squared* = .553 (Adjusted *R-Squared* = .545)

The adjusted means for the control and experimental groups are reported as 14.979 and 17.326 in Table 4. The standard errors for both groups are roughly the same. The partial *eta squared* of .067 suggested a moderate relationship between RM posttest and the treatment, controlling for the RM pretest. Effect size  $d = .534$  also suggested treatment had a medium effect on the RM posttest. ( $d = M_1 - M_2 / \sigma_{pooled}$ ).

**Table 4**  
**Adjusted Means for the Control and Experimental Groups**

Dependent Variable: RM Posttest

Experimental/ Control	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	14.979 <sup>a</sup>	.554	13.882	16.076
Experimental	17.326 <sup>a</sup>	.621	16.095	18.558

<sup>a</sup> Covariates appearing in the model are evaluated at the following values: RM Pretest = 14.70.

### **Reasoning Mind Achievement Test Results** **for Wilson Intermediate School**

Table 5 reports the ANCOVA results for Wilson Intermediate School. ANCOVA was used to examine the effects of the treatment (i.e., Reasoning Mind program) on students' RM post-

achievement mathematics scores. A one-way ANCOVA was conducted, treating the control and experimental groups as the between-subjects factor, RM posttest as the dependent variable, and RM pretest as the covariate.

**Table 5**  
**ANCOVA Reasoning Mind Achievement Test Results**  
**for Wilson Intermediate School**

Dependent Variable: RM Posttest

Source	Type III Sum of Squares	df	Mean Square	F	<i>p</i>	Partial <i>Eta squared</i>
Corrected Model	539.056 <sup>a</sup>	2	269.528	13.970	.000	.282
Intercept	73.258	1	73.258	3.797	.055	.051
RM Pretest	501.195	1	501.195	25.978	.000	.268
Group	64.736	1	64.736	3.355	.071	.045
Error	1369.822	71	19.293			
Total	18469.000	74				
Corrected Total	19080.878	73				

<sup>a</sup> *R-Squared* = .282 (Adjusted *R-Squared* = .262)

The two adjusted means were 14.094 and 15.978 for the control and experimental groups as shown in Table 6. Their standard errors were .696 and .755 respectively. The ANCOVA results indicate that the experimental group scored higher than the control group at a probability level that approaches statistical significance [ $F(1,71) = 3.355, p = .071$ ]. The partial *eta squared* was .045. The effect size  $d = .429$  suggests that the treatment had a medium effect on the RM posttest. ( $d = M_1 - M_2 / \sigma_{pooled}$ ).

**Table 6**  
**Adjusted Means for the Control**  
**and Experimental Groups**

Dependent Variable: RM Posttest

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	14.094 <sup>a</sup>	.696	12.707	15.481
Experimental	15.978 <sup>a</sup>	.755	14.473	17.483

<sup>a</sup> Covariates appearing in the model are evaluated at the following values: RM Pretest = 13.42.



## TAKS Achievement Test Results

### ANCOVA TAKS Achievement Test Results for Angleton Middle School

Table 7 reports the TAKS results for Angleton Middle School. A one-way ANCOVA was conducted to detect the effect of control/experimental group on 2007 Math TAKS score using 2006 Math TAKS score as a covariate. The small F value, .003 with degrees of freedom 1 and 129, indicated that the adjusted means for the control and experimental groups were not statistically different ( $p=.956$ ).

**Table 7**  
**ANCOVA TAKS Achievement Test Results for Angleton Middle School**

Dependent Variable: 2007 Math TAKS Raw Score

Source	Type III Sum of Squares	df	Mean Square	F	<i>p</i>	Partial <i>Eta squared</i>
Corrected Model	720.892 <sup>a</sup>	2	360.446	50.982	.000	.441
Intercept	193.372	1	193.372	27.351	.000	.175
RM Pretest	720.884	1	720.884	101.963	.000	.441
Group	.022	1	.022	.003	.956	.000
Error	912.040	129	7.070			
Total	207823.000	132				
Corrected Total	1632.932	131				

<sup>a</sup> *R-Squared* = .441 (*Adjusted R-Squared* = .433)

The two adjusted means for control and experimental groups were 39.536 and 39.510 as reported in Table 8. Both groups had standard errors of .327.

**Table 8**  
**Adjusted Means for Experimental and Control Groups**

Dependent Variable: 2007 Math TAKS Raw Score

Experimental/Control	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	39.536 <sup>a</sup>	.327	38.888	40.183
Experimental	39.510 <sup>a</sup>	.327	38.862	40.158

<sup>a</sup> Covariates appearing in the model are evaluated at the following values: 2006 Math TAKS Raw Score = 37.90.

**ANCOVA TAKS Achievement Test Results for Cornelius Elementary School**

Table 9 reports the TAKS results for Cornelius Elementary School. A one-way ANCOVA was conducted to detect the effect of control/experimental group on 2007 Math TAKS score using 2006 Math TAKS scores as a covariate. The ANCOVA result, using 2007 Math TAKS scores as the dependent measure, control/experimental group as the fixed effect, and 2006 Math TAKS scores as the covariate, indicate that the mean difference between the control and experimental group were not statistically different from zero.

**Table 9**  
**ANCOVA TAKS Achievement Test Results for Cornelius Elementary School**

Dependent Variable: 2007 Math TAKS Raw Score

Source	Type III Sum of Squares	df	Mean Square	F	p	Partial <i>Eta squared</i>
Corrected Model	1237.203 <sup>a</sup>	2	618.601	45.591	.000	.492
Intercept	358.113	1	358.113	26.393	.000	.219
2006 Math TAKS Raw Score	1229.812	1	1229.812	90.637	.000	.491
Group	3.160	1	3.160	.233	.631	.002
Error	1275.437	94	13.568			
Total	137983.000	97				
Corrected Total	2512.639	96				

<sup>a</sup> *R-Squared* = .492 (*Adjusted R-Squared* = .482)

The adjusted means for control and experimental groups were 37.543 and 37.183 as reported in Table 10. Standard errors for the two groups were roughly the same, .507 and .556 respectively.

**Table 10**  
**Adjusted Means for Experimental and Control Groups**

Dependent Variable: 2007 Math TAKS Raw Score

Experimental/Control	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	37.543 <sup>a</sup>	.507	36.536	38.549
Experimental	37.183 <sup>a</sup>	.556	36.079	38.288

<sup>a</sup> Covariates appearing in the model are evaluated at the following values: 2006 Math TAKS Raw Score = 34.54.

**ANCOVA TAKS Achievement Test Results  
for Wilson Intermediate School**

Table 11 reports the TAKS results for Wilson Intermediate School. A one-way ANCOVA, treating control/experimental as the between-subjects factor, 2007 TAKS Math score as the dependent variable, and 2006 TAKS Math score as the covariate, was conducted. The ANCOVA results indicate that the mean difference between the control and experimental group were not statistically different from zero [ $F_{(1, 91)}=1.553$  and  $p=.216$ ].

**Table 11**  
***ANCOVA TAKS Achievement Test Results for Wilson Intermediate School***

Dependent Variable: 2007 Math TAKS Raw Score

Source	Type III Sum of Squares	df	Mean Square	F	<i>p</i>	Partial <i>Eta squared</i>
Corrected Model	1710.489 <sup>a</sup>	2	855.245	40.846	.000	.473
Intercept	149.887	1	149.887	7.159	.009	.073
2006 Math TAKS Raw Score	1682.825	1	1828.825	80.371	.000	.469
Group	32.525	1	32.525	1.553	.216	.017
Error	1905.383	91	20.938			
Total	113918.000	94				
Corrected Total	3615.872	93				

<sup>a</sup> *R-Squared* = .473 (Adjusted *R-Squared* = .461)

The two adjusted means were 33.731 and 34.964 for the control and experimental groups as reported in Table 12. Their corresponding standard errors were .632 and .739.

**Table 12**  
***Adjusted Means for Experimental, Non-experimental, and Control Groups.***

Dependent Variable: 2007 Math TAKS Raw Score

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	33.731 <sup>a</sup>	.632	32.474	34.987
Experimental	34.964 <sup>a</sup>	.739	33.496	36.431

<sup>a</sup> Covariates appearing in the model are evaluated at the following values: 2006 Math TAKS Raw Score = 32.73.

## Results from Teacher Questionnaire

### Descriptive Results from Teacher Questionnaire

A teacher questionnaire was completed by four teachers who were responsible for teaching the Reasoning Mind program. One teacher from Angleton and Cornelius responded and two teachers at Wilson completed the questionnaire. Table 13 includes the descriptive results from the questionnaire. Overall, all four teachers *strongly agreed* that their students were interested and engaged in RM (Item 1) and that the program's individualized instruction benefited their students mathematically (Item 3). In terms of the curriculum, all four teachers thought RM's curriculum was of high quality and that it taught both math concepts and computational skills (Item 4).

All teachers *strongly agreed* that the RM support staff was helpful (Item 7) and half of the teachers *strongly agreed* that they had been prepared and received enough training to implement RM in their classrooms, while the other half (2 teachers) *agreed* with that statement (Item 8). Two teachers (50%) thought it was more difficult to teach a RM class than a traditional class, while the other two teachers disagreed with the statement (Item 9).

All the teachers *strongly agreed* that students with good reading skills and mathematically strong benefited from RM (Item 6), and all teachers *agreed* or *strongly agreed* that students with good reading skills but mathematically weak benefited from RM (Item 5). Two of the teachers (50%) thought that students with weak reading skills benefited with RM, while two teachers disagreed with the statement (Item 4).

All four teachers either *agreed* or *strongly agreed* that as a tool, RM allowed them to teach their students better (Item 10). Two of the teachers *strongly agreed* that they would like to continue using RM in their classroom, while the other two teachers *agreed* to that statement (Item 11).

**Table 13**  
**Results from RM Teacher Questionnaire (n = 4)**

	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>
1. My students were interested and engaged in RM					100%
2. RM's curriculum is of high quality; it teaches both math concepts and computational skills					100%
3. RM's individualized instruction method benefited my students mathematically					100%
4. Students with weak reading skills benefited from RM		50%		50%	
5. Students with good reading skills but mathematically weak benefited from RM				50%	50%
6. Students with good reading skills and mathematically strong benefited from RM					100%
7. RM support staff were helpful					100%
8. I felt that I had been prepared and had received enough training to implement RM in my classroom				50%	50%
9. It is more difficult to teach an RM class than a traditional one		50%		50%	
10. As a tool, RM allowed me to teach my students better				75%	25%
11. I would like to continue using RM in my classroom				50%	50%

### **Results from Teachers' Open-Ended Questions**

The results from the open-ended questions also revealed teachers' positive experiences with the program. All the teachers indicated that their students were very engaged and interested in the RM class and they specifically mentioned that the (a) animation, (b) pictorial representations of the problems, and (c) the immediate feedback and support of the genie were aspects of the program that held students' attention.

All the teachers thought that Reasoning Mind was very good for students because it: (a) would re-teach objectives that students missed, provided immediate feedback to students, and helped students develop problem-solving skills. All the teachers also wrote that it was a useful tool for teachers because it: (a) helped them learn new math skills, (b) showed them new ways to teach

some objectives, and (c) provided them with immediate relevant information about student progress.

All of the teachers indicated that their experiences with Reasoning Mind were very positive. Several teachers specifically mentioned the great support they received from RM staff and how the program ran very smoothly. They mentioned that the major difference between Reasoning Mind and traditional instruction is that RM was individualized and work is done at the student pace. They said that traditional instruction often does not allow for differentiated instruction and addressing individual student needs, while RM incorporates those aspects.

The specific strengths of Reasoning Mind that teachers mentioned were: (a) immediate feedback to students, (b) genie solution to problems, (c) available resources to students, (d) available resources to teachers, (e) reward incentives, and (f) self-paced program. There were only a few major weaknesses of Reasoning Mind that were mentioned by teachers. These included: (a) lack of audio for poor readers, (b) small glitches in the system, and (c) the time it took to get through the theoretical material. Some of the suggested changes for Reasoning Mind included: (a) generating worksheets from missed problems, (b) running reports by date, (c) printing homework for the entire class, and (d) shortening the theory section slightly.

Several teachers provided short testimonials to their experiences in Reasoning Mind that again highlighted their very positive attitudes toward the program. One teacher, for example, stated, *“I have truly enjoyed teaching in a RM classroom. The students are working at their level, which lets the more advanced student excel and the lower student not feel rushed or discouraged. The individualized genie messages motivated the students as well as class competitions. All RM students greatly benefited from the program. I look forward to teaching in a RM classroom again. And my students look forward to coming back next school year.”* Another teacher had a similar positive attitude about the program and its effects on students, *“RM City was a fantastic addition to our campus this year. Students loved the program and even complained when the time on it had to be cut short for testing purposes. I found students who were struggling with problem solving blossom into some of the greatest thinkers! I was also blessed to have a child as a student of this program as well. From a parent’s point of view...superb! I didn’t mind letting him spend more time on the computer at home because I knew he was motivated to take his learning to the next level!!”*

## **Student Questionnaire Results**

### **Student Descriptive Results**

Students in the Reasoning Mind program from each of the two middle or intermediate schools and the one elementary school completed a survey that asked them about learning math in RM City. Table 14 reports students’ perceptions by school. Over 80% of the students at Angleton Middle School and Cornelius Elementary School indicated that they liked learning math in RM City a whole lot or that they liked it (Item 1). Over 60% of the students from Wilson Intermediate School indicated that they liked learning math in RM City a *whole lot* or that they *liked it*. Only 4% of the students from Cornelius and 1% of the students from Wilson indicated that they didn’t like learning in RM City at all.

Over 70% of the students from all three schools indicated that they either *liked math a whole lot more* or *more than* they did previously (before the RM Class) (Item 4). Only 4% of the students from Cornelius indicated that they liked math a *whole lot less* than before they took the RM class.

Over 75% of the students from all three schools indicated that they would prefer to learn math in a RM City in the future (Item 5). Only about 10% of the students from all three schools indicated that they would prefer to learn math in a regular math classroom in the future.

**Table 14**  
**Results from Student Questionnaire by School**

**1. Did you like learning math in RM City?**

	I liked it a whole lot	I liked it	It was OK	I didn't like it at all
Angleton	60%	23%	17%	0%
Cornelius	56%	25%	15%	4%
Wilson	33%	30%	36%	1%

**4. How did your liking of math change after the RM class?**

	Now, I like math <u>a whole lot more than</u> before	Now I like math more than before	I like math the same as before	Now, I like math less than before	Now, I like math <u>a whole lot less than</u> before
Angleton	46%	33%	20%	1%	0%
Cornelius	44%	35%	17%	0%	4%
Wilson	30%	43%	19%	7%	0%

**5. In the future, where would you like to learn math most?**

	In RM City	In a regular math class	It doesn't matter
Angleton	80%	11%	9%
Cornelius	75%	12%	13%
Wilson	78%	6%	16%

**Results from Students' Open-Ended Comments**

Student comments from the open-ended questions revealed that they had very positive attitudes toward the Reasoning Mind program. When asked about what they liked about learning math in RM City (Item 2), many students said: (a) it was fun, (b) it was easier, (c) they got to work on computers, (d) they got to work at their own pace, (e) they liked the Genie who encouraged them, tutored them, and showed them solutions, (f) they liked getting prizes, and (g) they liked various aspects of the curriculum such as the problems, activities, and games.

When students were asked about aspects they disliked about the program (Item 3), most said that there was *nothing that they disliked about RM*. A few responses, however, mentioned that they did not like (a) the theory component, (b) the Genie's hints, and (c) the hard problems.

The final open-ended question asked students if they had anything else they wanted to say about Reasoning Mind (Item 6). Most students indicated that they didn't have anything else to say, but many students mentioned that they (a) loved the program, (b) thought it was "cool" and fun, and (c) wished that they could always learn math in RM City.

## Findings and Conclusions

### Findings

1. Fifth grade students in the experimental group at Angleton Middle School outperformed the control group on the Reasoning Mind Achievement Test at  $p < .000$  (adjusted mean = 19.55 compared with 16.59). The partial *eta squared* of .089 indicated a moderate to strong relationship between the RM posttest and the treatment, controlling for the RM pretest. The effect size (*d*) of .80 suggests that students in the Reasoning Mind program scored approximately 29% higher than students in the control group on the Reasoning Mind achievement test.
2. Fifth grade students in the experimental group at Cornelius Elementary School outperformed the Control Group on the Reasoning Mind Achievement Test at  $p < .000$  (adjusted mean = 17.33 compared with 14.98). The partial *eta squared* of .067 suggested a moderate relationship between RM posttest and the treatment, controlling for the RM pretest. The effect size (*d*) of .53 suggests that students in the Reasoning Mind program scored approximately 20% higher than students in the control group on the Reasoning Mind achievement test.
3. No significant differences were found in the fifth grade students in the control and experimental groups at Wilson Intermediate School. Students in the RM group, however, had higher adjusted RM posttest scores than the control group at a probability level that approaches statistical significance ( $p = .071$ ). The effect size (*d*) of .43 suggests that Wilson students in the Reasoning Mind program scored approximately 17% higher than students in the control group on the Reasoning Mind achievement test.
4. No significant differences were found between the fifth grade students in the experimental group and the control group at Angleton Middle School on the Texas mandated TAKS Achievement Test (adjusted mean = 39.54 compared with 39.51).
5. No significant differences were found between the fifth grade students in the experimental group and the control group at Cornelius Elementary School on the Texas mandated TAKS Achievement Test (adjusted mean = 37.54 compared with 37.18).
6. No significant differences were found between the fifth grade students in the experimental group and the control group at Wilson Intermediate School on the Texas mandated TAKS Achievement Test (adjusted means = 34.96 and 33.71).



7. All four teachers indicated that their students were very engaged and interested in the RM class and they specifically mentioned that the (a) animation, (b) pictorial representations of the problems, and (c) the immediate feedback and support of the genie were aspects of the program that held students' attention.
8. Teachers thought that the Reasoning Mind program was very good for students because it would: (a) re-teach objectives that students missed, (b) provided immediate feedback to students, and (c) helped students develop problem-solving skills.
9. The teachers indicated that RM was a useful for them because it: (a) helped them learn new math skills, (b) showed them new ways to teach some objectives, and (c) provided immediate relevant information about student progress.
10. Students had very positive attitudes toward the Reasoning Mind program; over 75% of them indicated that they would prefer to learn math in a RM City in the future.

### **Conclusions**

The achievement results, teacher questionnaire, and student questionnaire corroborate the positive effects of the Reasoning Mind program.

Angleton Middle School and Cornelius Elementary School students in the Reasoning Mind experimental group made statistically and educationally significant achievement gains over those in control groups. Wilson Intermediate School students in the Reasoning Mind experimental group also scored higher than students in the control group at a probability level that approaches statistical significance ( $p = .071$ ).

No differences between experimental and control groups were found when the TAKS test was used as the criterion measure. The lack of significant differences between the experimental and control students on TAKS achievement gains may be due to the lower stability and reliability of TAKS scores, especially from one year to the next. The lack of significant differences also may be due to the lower content validity of TAKS to the Reasoning Mind curriculum that emphasizes problem solving and other higher-level thinking skills.

Teachers and their students positively described RM. Teachers appreciated the program because it would re-teach objectives that students missed, provide immediate feedback to students, and help students develop problem-solving skills. RM was useful for them because it helped them learn new math skills, showed them new ways to teach some objectives, and provided them with immediate relevant information about student progress. Over 75% of students indicated they would prefer to learn math in a RM City.

Overall, the findings from this evaluation suggest that the Reasoning Mind program has been highly effective and the mathematics achievement index for the two schools that employed "true" experimental designs were comparable or higher than other mathematics curricula and materials that are evaluated and listed on the Institute for Education Sciences' *What Works Clearinghouse*.

## Appendices

### Appendix A

#### Teachers' Open-Ended Responses to Questionnaire Items

**1. In your opinion, were the students engaged and interested in the RM class? If so, what engaged them? If not, why not? Please explain.**

- *The students were very interested and engaged in the RM City program. They loved the immediate feedback and support of the genie and the ability to compete with points.*
- *My students were engaged. The solutions and hints helped students to better answer questions (even though they could have paid more attention to the hints.) Genie points and genie race motivated the kids to work hard.*
- *Also, the genie encouraged the students with his compliments. Some kids thought he was childish, but liked him.*
- *My students were very engaged in the program. Many aspects of the program held my students attention, but the obvious were the animation, the pictorial representation of the problems and anticipating the Genie's solutions.*

**2. Do you think RM is good for the students? Do you believe it could be a useful tool for teachers like you? Please explain why or why not.**

- *RM was good for the students, it would re-teach objectives they missed. On some theory more detail or more examples would be beneficial. I personally learned a lot of new math skills from teaching RM. It showed me new ways to teach some objectives.*
- *RM was a good tool to use to teach math. Teachers will find it to be teacher friendly, very organized, and provides immediate relevant information about student progress.*
- *I think RM City is excellent for the students. It addresses the needs of each student and allows them to work at their own pace. I was very pleased with the support my students got from the program and to see how effective it proved to be. I like to make sure each child gets what he/she needs so this program was great for me.*
- *RM was a good tool to use to teach math. RM allows students to develop problem solving skills, become critical thinkers, and it gives immediate feedback to the students. Teachers will find it to be teacher friendly very organized and provides immediate and relevant information about student progress.*

**3. What have your experiences been like teaching with RM? How is teaching with RM different from teaching a traditional class?**

- *I have enjoyed teaching RM. I would like to continue with the program. It keeps you busy during classroom hours. The reports help to monitor each student's strengths and weaknesses. Teaching RM than the traditional classroom is more work during the day*

*(working with 25 kids at once in different lessons)but less work in grading and planning (unless a student is diagnosed).*

- *My experience teaching with RM was successful this year. I enjoyed the program, my students were successful on their test, and my special students made lots of progress and felt successful. The support from the RM staff was great and the program ran smoothly with hardly any difficulties.*
- *Teaching with RM verses traditional classroom, the major difference is that the instruction is individualized and it is student pace.*
- *At first I was leery about not having a class of direct instruction but after a week or so I became very confident and comfortable with RM City. Traditional classrooms are not differentiated as much as they should to address individual needs. RM City has so many reports and diagnostics that it makes teaching math to strugglers a whole lot easier.*
- *My experience teaching with RM was great. I really enjoyed the program; my students were successful on their test and with learning the 5<sup>th</sup> grade math objectives. My co-teach students made lots of progress and felt successful. The support from the RM staff was great and the program ran smoothly with hardly any difficulties.*
- *Teaching with RM verses traditional classroom: the major difference was that the instruction was individualized and done at the student's pace.*

#### **4. In your opinion, what are the major strengths of RM?**

- *Self paced and motivation to the students.*
- *Immediate feedback to the students (2)*
- *Genie solution to problems (2)*
- *Available resources to students (2)*
- *Available resources to teachers (2)*
- *Reward incentives (2)*
- *Its immediate feedback and student tools (conversion tables and math textbook/glossary). I also feel that the individualized pacing is a major benefit.*

#### **5. In your opinion, what are the major weaknesses of RM?**

- *For poor readers, no audio.*
- *Small glitches in the system for example, a problem that was scored incorrectly when the student really got it correct, the game room rarely worked, and the homework did not work.*

- *The only weakness I found with the program was the time it took to get through the theory material.*

**6. If you could change anything about RM, what would it be?**

- *It would be nice to generate worksheets from missed problems for a specific student and objective when they are diagnosed or fixing to be diagnosed.*
- *Also if the tutors before the kids accept the lesson you know what lesson they will help the kids with.*
- *Run reports by date.*
- *Print homework for entire class at once instead of individual students.*
- *I would change the homework feature, and I would change the printing to make it possible to print more items from the program.*
- *Shortening the theory section a little bit would be my only change.*

**7. If it were made available to you next year as a resource, would you utilize brief classroom videos that focus on classroom strategies specific to Reasoning Mind? (for example, how to prepare for a small group instruction, how to conduct a small group instruction, or how to run a math race tournament?)**

- *I would watch the videos to see if it would help me in the classroom.*
- *Most likely not.*

**8. Additional comments:**

- *Thanks for all the support during the year it made for a smooth and productive year.*
- *I truly enjoyed using this program for the first time on my campus this past year. I feel is a wonderful way to integrate technology and fun into math so children learn at a higher level with what they feel is less effort.*
- *I really enjoyed working with Reasoning Mind. It's a wonderful program that students and I greatly benefited from. Thanks for all the support during the year, it made for a smooth and productive year.*

**9. Could you please give a short testimonial to your experiences in RM? If published in our project report and other RM informational materials, the testimonial will be the only section of this questionnaire that will show your name.**

- *I have truly enjoyed teaching in a RM classroom. The students are working at their level, which lets the more advanced student excel and the lower student not feel rushed or discouraged. The individualized genie messages motivated the students as well as class competitions. All RM students greatly benefited from the program. I look forward to*

*teaching in a RM classroom again. And my students look forward to coming back next school year.*

- *Reasoning mind was a successful mathematics curriculum I have used this year. It was challenging but effective, my students were engaged in meaningful math activity and in the end were successful.*
- *RM City was a fantastic addition to our campus this year. Students loved the program and even complained when the time on it had to be cut short for testing purposes. I found students who were struggling with problem solving blossom into some of the greatest thinkers! I was also blessed to have a child as a student of this program as well. From a parent's point of view...superb! I didn't mind letting him spend more time on the computer at home because I knew he was motivated to take his learning to the next level!!*

**Appendix B**  
**Students' Open-Ended Responses to Questionnaire Items**

**2. What did you like about learning math in RM City?**

(Responses alphabetized with exact duplicates listed first)

- Fractions (4 responses)*
- Everything (3 responses)*
- It was fun (3 responses)*
- Riddle (2 responses)*
- Working on the computer (2 responses)*
- A tutor*
- About the circle and disk, it really helped me*
- All the different questions they gave*
- Because it is fun*
- Because it was on the CPU and the lessons were cool when you were learning them*
- Because you get awards with you points. And it helps me with my grades. And most of all it help me pass the TAKS*
- Buying stuff with our points*
- Different subjects*
- Division*
- fun*
- Geometry*
- Geometry, math. Everything!*
- Getting hard questions and letting myself learn hard objectives*
- Getting prizes and explains everything*
- Getting the questions right*
- How it can help me more in math so that when I got to sixth grade it can be easier for me.*
- How it teaches me things*
- How the genie awards us*
- How the tutors explained the problems to us*
- I didn't like learn from a teacher because it's boring but RM City is better and is in computer*

- I don't have to listen to the teacher talk*
- I got to work on the computer*
- I have kind of fun in RM City*
- I learn a whole lot because you can get points and get prize*
- I learn about to divide and a lot and how to do fractions*
- I learned adding and subtracting fraction, how to do a problem in order ( $37+15/8-10 \times 5$ ), how to make a fraction into decimals or decimals into fractions, and I learned how to read decimals and fractions*
- I learned how to change an improper fraction to a mixed fraction*
- I learned new things I didn't know before such as how to multiply 3 digit numbers, and I learned to add and subtract fractions.*
- I like everything about it because it explain the answer why you got it wrong or right*
- I like it because it was like a teacher teaches you something*
- I like learning math in RM City because it fun and the genie is silly*
- I like learning math on the computer*
- I like learning math with the game because it's fun and interesting*
- I like learning much more stuff I didn't know*
- I like RM City because when you get it wrong you get a solution that will help you with the next one.*
- I like that the Genie is always cheering us up. It is helping us having fun.*
- I like the games, the problem solving, and having to get help from genie and tutor*
- I like the math game*
- I like the Please Excuse My Dear Aunt Sally*
- I like to talk to the genie and learn new things about the genie and math.*
- I like when they give you hints while you are learning math*
- I like when we get helped by the tutors*
- I liked about learning math in RM City is that you get points and with the points you buy things in RM City*
- I liked going at my own pace, not having to wait, on other or feeling left behind*
- I liked Guided Study and genie who was there whole time the problems were easy and difficult at the same time. It is awesome*

- I liked how it went back when we missed too much problems it show us how to do the problem and we would get prizes for doing problems .*
- I liked how they teach us*
- I liked it because it's better than book work*
- I liked it because the genie helps you if you have problems and it gives you hints if you don't understand it. It goes over the work before you start answering the questions. It has a glossary and multiplication chart.*
- I liked it when I get something wrong it tells me and it tells me what I need to do next time*
- I liked learning about fractions and games*
- I liked learning about fractions I liked learning about fractions because fractions are fun to do.*
- I liked learning new things*
- I liked learning the fractions*
- I liked Math in RM City because it will give you a solution*
- I liked RM because it was fun to learn with the Genie*
- I liked that at the end of each lesson you had a chance to show what you learned*
- I liked that we didn't have to do our work out of books*
- I liked that we didn't have to read pages on a book. If I had read it, I would've been going to sleep*
- I liked that we got to learn RM City on a computer instead of math sheets*
- I liked that when you got 5 problems correct in a row you got 10 bonus points*
- I liked the Genie*
- I liked the math problems*
- I loved learning probability and geometry*
- I thought that it was a cool thing to work on the computer. Math is much funner to work on the computer because we don't have to write as much*
- I understand math a lot better*
- I will be hard in RM City in class OK!!*
- It challenges you on how good you are in math*
- It gives you another problem*



- It gives you the theory, and if you get one problem wrong it tells you why you got it wrong*
- It helped a lot*
- It helped me improve a lot because math used to be my worst subject and with RM City it turned to my best subject*
- It helped me with my math and it helped me pass my TAKS test*
- It is a lot better on the RM*
- It is a lot easier to understand then learn from a teacher*
- It is fun and I learning a lot*
- It is easier than on paper math*
- It is new and fun*
- It is really easy to do*
- It is way better than math on the desk*
- It makes it funner than being in a classroom*
- it really explained to you what to do step by step, and if you still didn't get it then they would give you a tutor to help you*
- It showed the right way to do it, even when you get it wrong*
- It taught me a lot now I know my timetables like the back of my hand and division.*
- it taught me more than I thought I was going to learn (it taught me long division, fractions, and a lot more stuff)*
- It teaches you things you didn't know*
- It was an easier way to learn math*
- It was cool*
- it was cool to learn math I didn't know that much math*
- It was easier than on paper math*
- It was fun and a lot of other things*
- It was fun and challenging to do and learn cool things*
- It was fun and easy for me and I got better grades*
- It was fun and outstanding*
- it was fun because the genie goes step by step with you*
- It was fun but some of the questions were too hard*
- It was funner because you got to get on a computer instead of writing things down*

- It was good is math RM City
- It was more fun learning math on a computer than a piece of paper 😊
- It was to learn on it you be happy to learn
- it wasn't boring like math in textbooks
- It wasn't usual and it was fun
- It's better than a teacher giving us a lecture
- It's fun and if you miss it gives you a solution
- Learning division, addition
- Long division
- Playing the games and that's it and learning to play the games
- Points it gives you
- Prizes
- Problems
- That after you answered a problem it told you if you were wrong or not and if you got it wrong it told you the way you work it
- That some people get tutors and the tutors help you a lot
- That some problems were so easy
- That the Genie helps us
- That the tutors really help a whole lot in some of the subjects and the genie
- That they make it fun like playing games and the genie showing us how to learn things by having fun
- That we can compete with our work and learning more.
- That we got to work on the computers
- That you get points for it and it helps you
- That you were rewarded for getting problems right
- The activities and games in RM City
- The computer made it fun because it wasn't ordinary math
- The different subjects
- The fractions and the decimals cause the problems were boring but they're easy
- The game room because it got the play the games
- The games and the fun of it
- The Genie

- The genie and working on the computer*
- The genie gave tips to us to help us through the lesson*
- The genie he was fun and that we could go over lessons from before and get a hint when we needed.*
- The Genie Solution helps you how to do a problem*
- The Genie was fun*
- The math problems and questions*
- The math problems, riddles*
- The measurements*
- the prizes*
- The review*
- The riddle*
- The riddle machine*
- The solution helped on the hard problems*
- The tutors are so sweet and patient with me and I like the way they teach me. I don't always get it but I do sometimes because the tutors and the genie help me to understand.*
- The way the Genie can help you learn more by Genie solutions and hints and also the theory*
- They helped us pass the TAKS test*
- To see how they work the problem and learn more*
- We can go to the game room*
- We didn't have to write a lot, we learned a lot better at our own speed.*
- we didn't have to write and we got prizes*
- Well last year my math teacher rushed through lessons and I couldn't understand any of it. But this year I've done a lot better because you work at your own pace*
- Well what I like about it was the Genie mall and games*
- What I like about RM City was that the Genie is there to help you, get tutors, and gives you hints*
- What I like about the RM City is that I love when you can go on the riddle and the guided study when you can click on a word and it will show you the definition*

- What I liked about learning math from RM City was that it was more fun than reading from a textbook*
- What I liked was the animations it helped me learn more*
- What learning in RM City is like*
- When doing addition multiplying*
- When the genie tells us what to do and he really helps us*
- When you get a question right you earn points and you get prizes with your points*
- whole number and fraction*
- Work at your own pace*
- You can go at your own pace*
- You can pace yourself. You get help from the genie solution if you get it wrong*
- You can play games*
- You can work independently and on your own pace*
- You could do math on the computer and they help you on the computer*
- You could get points and get prizes and also play games*
- You could learn as fast as you want*
- You didn't have homework every day*
- You didn't have to listen to the teacher talk all the time!!!*
- you didn't have to use books*
- you don't have to write*
- You earn points and get prizes*
- You got help when you have problems*
- You got rewards when you got a lot of points*
- You got to work at your own pace*
- You had the genie with you and it was very fun*

### **3. What did you dislike about learning math in RM City?**

(Responses alphabetized with exact duplicates listed first)

- Nothing (33 responses)*
- The theory (7 responses)*
- I liked everything (5 responses)*
- Nothing, I liked everything (3 responses)*

- Getting questions wrong (2 responses)*
- None (2 responses)*
- Review Mode (2 responses)*
- Some of the problems were hard (2 responses)*
- About the numerical and algebraic expression it is hard*
- Adding and Subtracting mix numbers*
- All the mistakes in the system*
- Because it was hard*
- Because there was hard problems*
- Fractions*
- Fractions and some other math problems*
- Fun to do math*
- Getting 100 points*
- Getting bonus points it was hard getting bonus points*
- Getting problems wrong and genie saying take another look. And stuff like that*
- Give me hard problems*
- Going back*
- having to learn it on the computer*
- How the problems didn't make that much sense to me*
- I did not dislike anything*
- I didn't dislike anything about RM City*
- I didn't dislike nothing because it's all just learning*
- I didn't like RM because we had to read all the lessons*
- I didn't like the fact that some problems were hard*
- I didn't like the fact that the tutors always take long to come up*
- I didn't like when it would take you back*
- I didn't like when they give you hard problems*
- I didn't really dislike anything*
- I dislike getting my problems wrong*
- I dislike how long it took to finish the theory*
- I dislike nothing except when I got something wrong*
- I dislike that you need to read the theory*

*-I dislike the part where sometimes the computer marks some problems wrong and they were right.*

*-I disliked about learning math in RM City is that there was hard problems on it*

*-I disliked that when we got the problems wrong it might have took us back. But they take us back so we could understand*

*-I disliked the hard math problems*

*-I do not dislike anything*

*-I don't actually but is just that I don't like being on "review mode" it s hard, and that sometimes the RM make mistakes*

*-I don't dislike anything*

*-I don't dislike anything about it*

*-I don't like the classroom*

*-I don't like the moth*

*-I got a little tired of sitting at the end of the year*

*-I hated looking at the theory*

*-I like writing*

*-I liked it I really didn't not like anything about it*

*-I never win something*

*-I really didn't dislike anything about RM City*

*-I really liked everything*

*-I would say the only thing I hated was that the tutors never came to help us*

*-If I got my answer correct and it counts it wrong and so I don't get points*

*-In the regular classes they don't have hints. So they learn to be independent and they end up learning their mistakes. I mean don't get me wrong I like the hints but the truth is on the TAKS there isn't a hint*

*-is on the computer*

*-Is the objects are too long*

*-It got too hard*

*-It hurts your eyes*

*-It starts getting hard and boring (sometimes gets me mad)*

*-It takes a long time to finish it*

*-It took too long to load*

- It took too long to read*
- It was boring and I didn't buy a lot of stuff because it was too much*
- It was good learn math on RM City*
- It was on a CPU*
- It was so boring*
- Its slow*
- Lesson*
- Long word problems*
- multiplying 6 numbers by 6*
- n/a*
- Not being in regular math class*
- Nothing because it was good*
- Nothing because we when we told kids that we did math on the computer and they were jealous*
- Nothing or test*
- Nothing, because I know more when I learn, and I have fun with it*
- Number line*
- Number Ray*
- Numerical expression*
- On the review mode I dislike that it never ends and it's so hard*
- Really nothing but the genie did distract me a little*
- Some answers are hard*
- Some of the problems were hard and I didn't know some of them*
- Some of the solutions are not always right*
- Something you could do and others did not work*
- Sometimes when you're right it says you're wrong*
- Teachers couldn't explain it to you*
- Test on the RM City!*
- that each time you passed a subject and an answer correct they got harder and harder*
- That sometimes I don't get the hint that the genie gave me*
- That sometimes it would mess up*
- That sometimes the answer for some questions were wrong when they were right*

- That the genie keeps on popping out when you're trying to answer a problem*
- that there was no noise it was a little bit boring and we hardly got a chance to play the games in RM City*
- That whenever you miss 5 in a row you lose points*
- that you couldn't go to the genies house*
- The competitions about the points*
- The division problems*
- The explanations*
- The genie doesn't help us. Some hints don't tell you anything*
- The Genie popping up a lot*
- The genie's hints aren't very good*
- The hard problems*
- The hard thinking*
- The hints*
- The levels and work*
- The number line*
- the only problem is when it's having problems*
- the only thing I dislike about learning math in RM City is that the put hard problem in review*
- The people help me*
- The questions were hard*
- The reading of lesson (I would like the computer to have earphones, this helps me better because the lesson is told NOT read)*
- the review mode*
- The review part of RM City*
- The very hard questions*
- The work*
- They have different level*
- They never have me a tutor and when it was always cut off*
- They would give you hard problems*
- We did not play games like the other math classes on Friday*
- Well is when I get things wrong you can't re do it*



- well of course I don't like getting them wrong but other than that I love RM City
- well what I didn't like was the hard problems
- What I dislike about learning math in RM City was that it was keep skipping questions and I dislike that I am keep getting some questions wrong
- What I dislike was that when you get a tutor they take a long time to answer
- What I disliked about RM City is that if you get a problem right they give you point, but if you don't get it right you don't get point
- What I disliked was the hard problems
- When I get something wrong you can't just go on if you already know your mistake
- When I got a problem wrong
- When I got problems wrong and had to go back.
- When I got problems wrong when I was right
- When it send me back
- When the people have time with you and help with problem they did listen to us
- When we do the difficulty levels
- You couldn't email your friend in class
- You gotta use the computer all the time
- you have to get homework

## **6. Is there anything else you'd like to say about RM?**

(Responses alphabetized with exact duplicates listed first)

- No (44 responses)
- I love RM City (4 responses)
- It's awesome (4 responses)
- It is fun!! (4 responses)
- Nope (4 responses)
- Not really (3 responses)
- Add more games
- At first I didn't really like it bout now I love it
- Boo yaa
- Genie is funny
- I also liked getting prizes and the games I could play.

- I hope there is RM City in the school I am going to next year because it's fun*
- I like it the whole time*
- I like RM City (where I learn)*
- I like RM City now because it helped me learn more about math so when I get to middle school I would know it*
- I like the riddle machine*
- I like to say that I will miss the RM and I love ya!*
- I like your program*
- I liked it is just I want to be in a regular class in 6h grade*
- I liked the prizes*
- I love this website, because it is so much fun*
- I think RM City is the best thing to learn math easier*
- I think that RM City is a great website*
- I think that RM City was good for us. It helped understand math more*
- I want sound effects and the genie to speak*
- I will like to say to the people that created RM City thank you because they are giving kids a better and fun way of learning math. Thank you!!!*
- I wish the Genie's house and the shopping mall was open*
- I wish we can have it again.*
- I wish you can get point even though you is wrong*
- I would like it to stay*
- I would say that it help me a lot because before I ever been in this program I used to get 50 in math. But now I make 80 and 90 in math. Thanks RM City for all the help. I improved a lot.*
- I'd like to say that it is in my experience of RM that it is the most exciting and best way of learning math in a whole new way.*
- It has taught me more than what I have already known*
- It helps me pass my TAKS and that's why I like RM City*
- It is a fun easier way to learn math*
- It is a great program for kids it helps a whole lot*
- It is a very good for our minds and get changes it helps kids*
- It is better place to learn and it is awesome and easy*

- it is cool*
- It is cool and challenging*
- It is cool. I passed the math test because of it*
- It is the best*
- It is the best way to learn*
- It is the best way to learn math*
- It is the best. Please try to have it in every grade.*
- it is the bomb!*
- It is very fun*
- It more learning and learn more and math*
- It needs to be a little bit more fun*
- It rocks*
- It rocks and rolls*
- It rules!!!*
- It should have more games*
- It should stay the same*
- It was a good experience*
- It was a great program*
- It was a great time and I enjoy it, Thanks*
- It was alright*
- It was boring but O.K.*
- It was fun, interesting and educated*
- It was good but I did get to learn some*
- It was really fun and taught me a lot*
- It would be funnier if you guys would put more activities in RM City*
- It's a good program*
- It's cool and fun*
- It's cool and the genie*
- It's cool but they should give it better graphics and cool games*
- It's fun to do and you get to learn more on your own and it's a race to see who has the most points*
- It's great*

- It's ok*
- Its fun for learning*
- My grade has improved a lot since I started RM City*
- No because I loved it*
- No except thank you*
- No except that it is the greatest*
- No it was good ☺*
- No just that is fun to learn in*
- No not really but when are y'all going to open the trophy room and the mall?*
- No, I just wish genie and the program good luck!*
- No, I think I've said everything I love RM City and I want it to stay for as long as possible and thank you for this wonderful program RM City people*
- No, Not at all*
- Nothing*
- Please make my game room work*
- RM City is a really fun and enjoyable program and the genie is a good friend*
- RM City is cool and I'm going go on it almost every day*
- RM City is the best math class I have been in because we don't have to listen to the teacher talk all day*
- RM City was the best math I ever did*
- RM is alright can't complain but it need something added to it! I don't know what!*
- RM is better than any original math class*
- RM is great place to learn*
- RM is great!*
- RM is the best place to learn math I want to do that next year*
- RM rocks when will the Genie's house be open?*
- RM was so cool*
- RM City it's a fun thing to learn Math with the Genie so I love RM City!*
- RM City rocks*
- Thank you for all the help!*
- Thank you for everything include the prizes*
- Thank you for giving us prizes and that I had fun*

- Thank you for letting us use the RM City it was fun to learn math that way.*
- Thank you genie*
- Thank you Genie, Ms. Edwards, Mr. Armstrong and Michael*
- Thanks for the opportunity in RM City. It was fun!*
- Thanks for the prizes that the people from RM City gave us for points and that RM City helped me succeed and learn more about math problems*
- That Genie, I would like you to keep up the good work because you are making math better for me. And you are fun for teaching me. RM City should also belong in different schools*
- That I love doing math in it*
- That I love it*
- That students around the world should be on RM City!!!*
- That they got games*
- That, it's a cool educational program*
- The games need to be open like every Friday.*
- The genie*
- The only thing I want to say is that RM should go to higher curriculum*
- The program still need to be improved a little about if you put the right answer the count it wrong*
- They rock*
- U Rock Dudes!*
- Well I do have a question: will you beat Marcella?*
- Well it's very, very entertaining and I like it when they bring us the prizes because of the work*
- Well its fun to learn from, it's not hard because you have a genie!*
- When I go to middle school will I be able to still get on RM City?*
- That I'm glad that these program existed and you learn with having fun. Thanks!!! For helping everyone*
- Why haven't the Genies house haven't open?*
- Yes, RM made this year fun*
- Yes it is very interesting and fun it has games too*
- Yes, RM City helps you learn math better and I understand everything now*