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APPENDICES

Appendix A Supplemental Statistical Analyses

Appendix B Diagrams of the Eight Thinking Maps®

Appendix C Examples of Student-Constructed Thinking Maps®

APPENDIX A
SUPPLEMENTARY STATISTICAL ANALYSES

Table A 1

Group Statistics for t-test on Previous Achievement in Reading, Mathematics, and Language

	<u>School</u>	N	M	SD	t
Preachr ^a	School A ^d	41	607.24	36.40	.41
	School B ^e	37	608.73	28.32	
Preachm ^b	School A	41	593.22	33.57	.92
	School B	37	87.78	28.01	
Preachl ^c	School A	41	587.15	34.95	.29
	School B	37	587.03	39.61	

^a Preachr = pretest score mean for reading, ^bPreachm = pretest score mean for mathematics,

^cPreachl = pretest score mean for language, ^dSchool A = treatment school, ^eSchool B = control school

Table A2

Tests of Between-Subjects Effects for Post-Achievement Reading with Previous Achievement in Reading as a Covariate

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Corrected model	8	62467.66	7808.46	15.09	.00
Intercept	1	1838.46	1838.46	3.55	.06
Preachr ^a	1	57294.71	57294.71	110.70	.00
School	1	1386.84	1386.84	2.69	.11
Gender	1	1309.15	1309.15	2.53	.12
Race	1	114.23	114.23	.22	.64
School x gender	1	1007.20	1007.20	1.95	.17
School x race	1	268.34	268.34	.52	.47
Gender x race	1	698.84	698.84	1.35	.25
School x gender x Race	1	1130.06	1130.06	2.18	.14
Error	69	35711.18	35711.18		
Total	78	30876461.00			

^aPreachr = previous achievement reading.

Table A 3
Tests of Between-Subjects Effects for Post-Achievement Mathematics with Previous
 Achievement in Mathematics as a Covariate

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Corrected model	8	35806.38	4475.80	9.67	.00
Intercept	1	9451.14	9451.14	20.42	.00
Preachm ^a	1	30782.60	30782.60	66.52	.00
School	1	1162.90	1162.90	2.51	.18
Gender	1	2.73	2.73	.01	.94
Race	1	5.90	5.90	.01	.96
School x gender	1	202.80	202.80	.44	.51
School x race	1	59.54	59.54	.13	.72
Gender x race	1	103.50	103.50	.22	.64
School x gender x race	1	.91	.91	.00	.97
Error	69	31931.17	462.77		
Total	78	29521337.00			

^aPreachr = previous achievement mathematics.

Table A 4

Tests of Between-Subject Effects for Post-Achievement Language with Previous Achievement in Language as a Covariate

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Corrected model	8	43429.71	5428.71	9.20	.00
Intercept	1	14696.78	14696.78	24.91	.00
Preachl ^a	1	40613.92	40613.92	68.83	.00
School	1	223.23	223.23	.38	.54
Gender	1	950.70	950.70	1.61	.21
Race	1	68.97	68.97	.18	.73
School x gender	1	181.73	181.73	.31	.59
School x race	1	861.31	861.31	1.46	.23
Gender x race	1	2241.91	2241.91	3.80	.06
School x gender x race	1	595.87	595.87	1.01	.32
Error	69	40713.64	590.06		
Total	78	28987289.00			

^a Preachl = previous achievement language.

APPENDIX B

DIAGRAMS OF THE EIGHT Thinking Maps®

In this section the eight Thinking Maps® used in the program are presented. Permission was granted by the owners of the Thinking Maps® program to use these diagrams.

Diagram B 1. Diagram of the circle map for defining in context.

Diagram B 2. Diagram of the bubble map for describing using adjectives and adjective phrases.

Diagram B 3. Diagram of the double bubble map for comparing and contrasting.

Diagram B 4. Diagram of the tree map for classifying and grouping main ideas, supporting ideas and details.

Diagram B 5. Diagram of the brace map for physical analysis of whole, parts, and subparts of objects.

Diagram B 6. Diagram of flow map for sequencing stages and substages of events.

Diagram B 7. Diagram of multi-flow map for causes and effects.

Diagram B 8. Diagram of bridge map for seeing analogies.

APPENDIX C

EXAMPLES OF STUDENT CONSTRUCTED Thinking Maps®

In this section examples of student constructed Thinking Maps® are presented. These were collected from the fourth-grade classes in School A.

Diagram C 1. Diagram of student constructed circle map.

Diagram C 2. Diagram of student constructed bubble map.

Diagram C 3. Diagram of student constructed tree map.

Diagram C 4. Diagram of student constructed brace map 1.

Diagram C 5. Diagram of student constructed brace map 2.

Diagram C 6. Diagram of student constructed flow map.

Diagram C 7. Diagram of student constructed multi-flow map.

Diagram C 8. Diagram of student constructed bridge map 1.

Diagram C 9. Diagram of student constructed bridge map 2.