

**STATISTICAL ANALYSES
OF 2007-2008 GAINS IN ACHIEVEMENT
ON THE IOWA TEST OF BASIC SKILLS,
CORE/SURVEY BATTERY,
FOR STUDENTS SERVED
BY BRAIN HURRICANE**



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EXECUTIVE SUMMARY

As part of an organizational self-study, Brain Hurricane, LLC, contracted with the Center for Research in Educational Policy (CREP) at The University of Memphis for an independent analysis of potential student achievement gains enabled by the supplementary educational services it provides. To this end, Brain Hurricane provided CREP personnel with its complete 2007-2008 database of student scores that were obtained on pre- and posttest administrations of age-appropriate *Iowa Tests of Basic Skills* (ITBS) assessments.

Across all Brain Hurricane students tested, average gains of about 14% were observed when the percent correct on pre- and posttest ITBS assessments were compared. Via a series of dependent *t*-tests, statistical analysis of these gains revealed systematic and highly significant differences for nearly all ITBS subject matter assessments, at nearly all grade/test levels. Associated with such gains were robust effect sizes that averaged about four-tenths of a standard deviation overall ($d = 0.40$) and that were particularly strong in the lower grade levels, where they approached and often exceeding over one-half of a standard deviation.

Because many of the students served by Brain Hurricane scored at or below the 22nd percentile in Reading and Mathematics on the pretest, their achievement on the corresponding posttests is noteworthy, as students typically gained between 8 and 16 percentile ranks, generally about a full stanine or more above their pretest scores.

Introduction

As part of an organizational self-study, Brain Hurricane, LLC, contracted with the Center for Research in Educational Policy (CREP) at The University of Memphis for an independent analysis of potential student achievement gains enabled by the supplementary educational services it provides. To this end, Brain Hurricane provided CREP personnel with its complete 2007-2008 database of student raw scores that were obtained on pre- and posttest administrations of age-appropriate assessments taken from the *Iowa Tests of Basic Skills* (ITBS).

In the early elementary grades—Kindergarten, Grade 1, and Grade 2—students served by Brain Hurricane took tests drawn from the *ITBS Complete/Core Battery* at Levels 5, 6, and 7, respectively. Both prior to and immediately after the tutoring interval, Kindergarten/ITBS Level 5 students were administered the same form of either a 30-item Word Analysis test, a 29-item Mathematics test, or, as appropriate, both. Similarly, grade 1/ITBS Level Six students were administered identical forms of a 35-item Word Analysis test, a 35-item Mathematics test, and/or a 19-item Reading Comprehension test, while grade 2/ITBS Level 7 students were administered identical forms of a 35-item Word Analysis test, a 34-item Reading test, and/or a 29-item test in Mathematics Concepts.

In Grades 3 through 8, Brain Hurricane students were pre- and post- assessed in Reading and Mathematics on subtests taken from the *ITBS Survey Battery*. At ITBS Level 9, students who were served in grades 3 and 4 took identical versions of a 27-item Reading subtest and/or 31-item Mathematics subtest. Similarly, at ITBS Level 11, students who were served in grades 5 and 6 took identical versions of a 32-item Reading subtest and/or 37-item Mathematics subtest. At ITBS Level 12, 7th and 8th grade students served by Brain Hurricane were administered identical versions a 34-item test in Reading and/or a 40-item test in Mathematics.

Within the Brain Hurricane database, inclusion of the state, district, and school within which students were served permitted analyses of the data with respect to a number of relevant subgroups. Besides an initial presentation of the overall results by grade/test level, tables in the following report provide breakouts of the data where Brain Hurricane's services were most concentrated. In addition, Brain Hurricane's provision of the *ITBS Norms and Score Conversions*

Manuals for both the Core/Complete and Survey Test batteries facilitated group-level representation of students' average raw scores as median Grade Equivalents (GEs) and National Percentile Ranks (NPRs), so that—in addition to any statistical significance observed—the educational significance of any pre-to posttest differences could be more readily understood.

Analysis

In all of the tables following, reported by test are the number of students having *pairs* of scores (that is, pre- and posttest). Subsequently shown are a) the *mean percentage correct* on the pretest and b) the *standard deviation* (i.e., variability) associated with that average and c) the *mean percentage correct* on the posttest and d) the *standard deviation* associated with that average. As an indicator of the typical pre-to-posttest gains made by students, a figure called “% *Correct Increase*” was calculated from the difference between these two means divided by the percentage correct on the pretest.

In those instances where the number of pairs is greater than or equal to 10, the results of statistically testing the difference between those two means appears in a column marked *t*. Referred to as a “dependent” or “correlated” *t*-test because the two measures involved were made on the same student, this test indicates *how likely* it is that *systematic* rather than purely random difference exists between the measures on average. Where a *t*-value is “statistically significant,” it is accompanied by one or asterisks, the number of asterisks denoting the degree to which the observed difference is something other than chance (that is, due to the systematic influence of BH services).

As another indicator of the impact of treatment, also provided is a descriptive statistic called the “effect size” (*E.S./d*), the magnitude of which indicates *how large* a difference (in standard deviation units) exists between the two measures. According to commonly accepted benchmarks, positive or negative effect sizes smaller than 0.15 are considered *negligible*, those that are around 0.30 are thought *small*, those are about plus or minus 0.50 are regarded as *moderate*, and those that are equal to or surpass 0.80 are considered *large* and *very large*. More recently, statisticians have argued that an effect size should be interpreted in light of what is typically observed in the literature in similar studies. As a result, rather than interpreting an effect

size of 0.30 as merely *small*, many educational researchers would regard such as effect as at least *robust* (that is, moderate to strong), in light of the impacts shown by many instructional interventions.

Finally, appearing in the last columns are the pre- and posttest median raw scores obtained by the pairs of students and what such raw scores represent in terms of standardized Grade Level Equivalents (GEs) and National Percentile Ranks (NPRs). The median is the point at which half of the scores fall above, and half of the scores fall below, as opposed to the mean, which is the average score. The median (*Mdn*) was chosen rather than the mean (*M*) as the indicator of typical performance because neither GEs nor NPRs increase or decrease in the same orderly fashion as do other test score representations (such as raw scores, standard scores, and Normal Curve Equivalents), but rather proceed irregularly. Nevertheless, as previously stated, this information is included to give practitioners a better sense of what the scores mean educationally, in the terms of the normal curve model (see Figure 1) that underlies standardized testing.

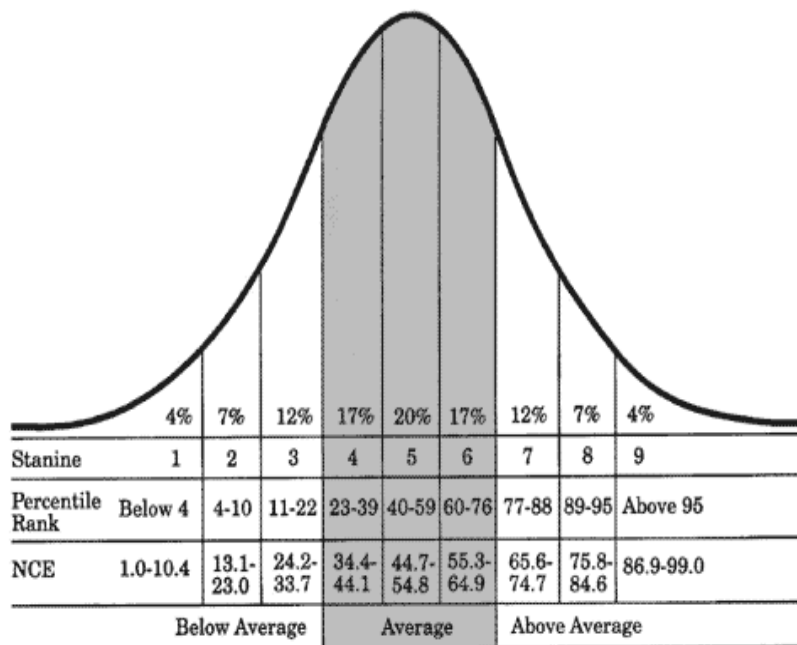


Figure 1. A Normal Distribution of Stanines, Percentile Ranks, Normal Curve Equivalents, and Performance Classifications.

Results: All Brain Hurricane Students by Grade/ITBS Test Level

Results for all students served by Brain Hurricane who had pairs of scores on the ITBS subtest measures are presented in Table 1 by grade and test level, and in Figures 2, 3, and 4. Although gains appear to be somewhat stronger in the lower grades than the upper ones, students in all grades—with the possible exception of Grade 7—evidence convincing signs of growth. In terms of “% Correct Increase,” BH students tended on average to raise their scores between 14% and 15% in both Mathematics and Reading. Via dependent *t*-tests, analysis of such gains indicate that most are not just “statistically significant” (at probability levels of $p < .05$ and $p < .01$), but “highly statistically significant” (at probability levels of $p < .001$). Linked with such differences are generally robust effect sizes, tending on average to be to approach one-half of a standard deviation in Mathematics ($d = 0.44$) and to be slightly more than one-third of a standard deviation in Reading ($d = 0.36$).

Table 1

Comparison of Pretest and Posttest Performance for All Students Served by Brain Hurricane by Grade/ITBS Test Level

ITBS Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Kindergarten (Level 5)												
Word Analysis	93	57.5	17.7	69.2	19.2	21%	7.54 ***	0.64	17.0	K.3/40	22.0	1.1/73
Mathematics	83	61.1	19.6	71.9	17.7	18%	5.75 ***	0.58	18.0	K.4/29	22.0	K.8/56
Grade One (Level 6)												
Word Analysis	168	62.4	16.1	66.3	15.7	6%	3.24 **	0.25	22.0	1.2/32	24.0	1.5/46
Mathematics	167	55.2	16.2	63.7	16.3	15%	7.13 ***	0.53	19.0	1.1/20	23.0	1.5/35
Reading	112	55.2	24.1	64.1	22.9	16%	4.21 ***	0.38	10.0	1.4/39	13.0	1.6/61
Grade Two (Level 7)												
Word Analysis	186	65.3	17.9	71.8	17.7	10%	5.70 ***	0.36	23.0	1.7/20	26.0	2.2/32
Math Concepts	182	65.5	13.6	75.4	13.8	15%	11.77 ***	0.72	19.0	1.5/12	22.0	2.0/25
Reading	185	65.8	22.0	74.8	19.5	14%	8.53 ***	0.43	23.0	1.9/19	27.0	2.1/30
Grade Three (Level 9)												
Mathematics	202	44.4	18.6	55.2	19.0	24%	9.28 ***	0.57	14.0	2.7/20	18.0	3.3/36
Reading	208	36.5	16.2	48.6	19.2	33%	11.58 ***	0.68	9.0	2.5/17	13.0	3.0/32
Grade Four (Level 9)												
Mathematics	144	57.1	20.1	66.6	18.3	17%	6.50 ***	0.49	18.0	3.3/14	21.0	3.7/24
Reading	148	48.1	20.1	57.0	19.9	18%	6.42 ***	0.44	13.0	3.0/14	15.0	3.5/22
Grade Five (Level 11)												
Mathematics	110	43.8	16.2	50.1	16.6	14%	4.44 ***	0.38	16.0	4.4/22	20.0	5.1/38
Reading	111	44.2	16.6	49.0	19.0	11%	3.27 ***	0.27	14.0	4.1/19	16.0	4.5/26
Grade Six (Level 11)												
Mathematics	123	50.1	18.9	55.0	21.7	10%	3.52 **	0.24	19.0	4.9/19	21.0	5.4/26
Reading	122	48.3	16.5	53.8	20.1	11%	3.62 ***	0.30	15.0	4.3/12	17.0	4.8/19
Grade Seven (Level 12)												
Mathematics	75	51.6	19.2	55.0	21.1	7%	2.09 *	0.17	21.0	5.5/18	22.0	4.7/21
Reading	76	41.6	14.5	42.9	17.2	3%	1.02	0.09	14.0	4.6/12	15.0	4.8/14
Grade Eight (Level 12)												
Mathematics	66	58.0	18.2	63.7	21.2	10%	3.00 **	0.29	23.0	6.0/16	28.0	6.7/32
Reading	67	52.0	18.3	56.8	17.2	9%	2.93 **	0.27	17.0	5.3/13	19.0	6.0/19

*** $p < .001$, ** $p < .01$, * $p < .05$

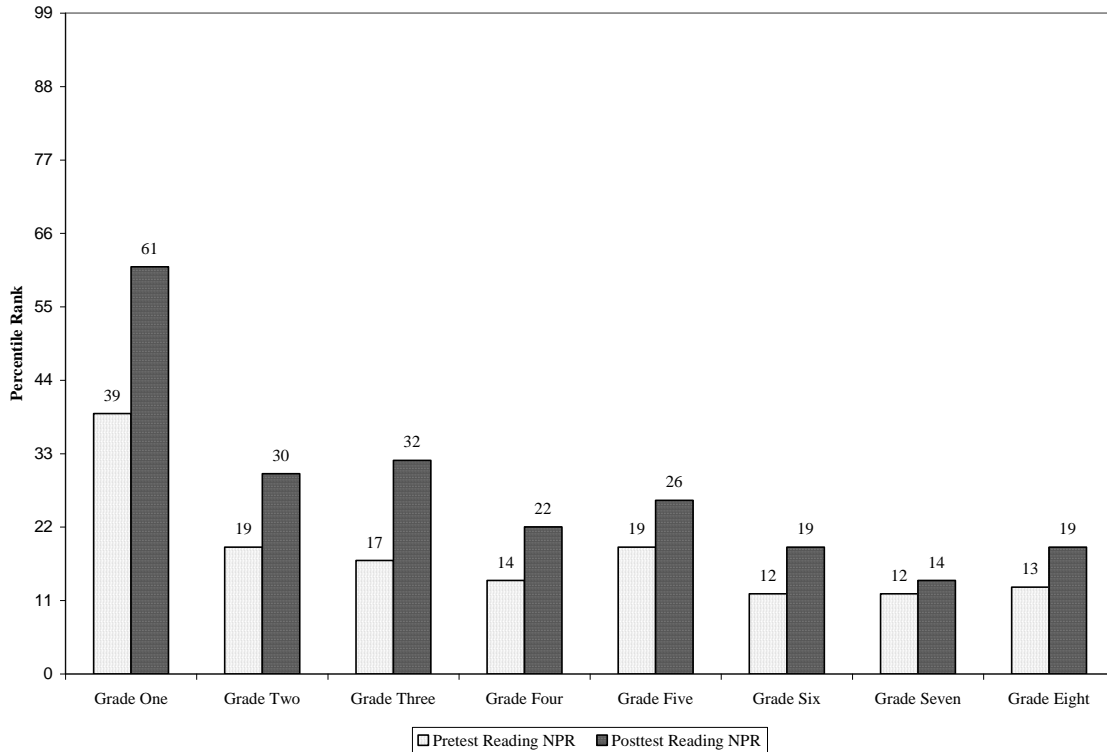


Figure 2. Pre- and Posttest Median National Percentile Ranks (NPR) in ITBS Reading.

When these raw score gains are examined in a normative context (see Figure 1), the differences typically tend to represent gains of what amounts to a full stanine or more. As suggested in Figures 2 and 3, the typical student served by Brain Hurricane begins with a percentile rank that, in terms of the normal distribution of standardized scores shown in Figure 1, would be labeled “below average”, being at or below a NPR of 22 and a stanine of 4. By the conclusion of treatment, however, most students served by Brain Hurricane appear to cross that divide and achieve NPRs and associated stanines conventionally linked to the “average” range. These increases may be observed in the median pretest and posttest percentile ranks observed for Grades 2, 3, and 5 in Reading (see Figure 2), for all grades except Grade Seven in Mathematics (see Figure 3), and for Grade Two in Word Analysis (see Figure 4).

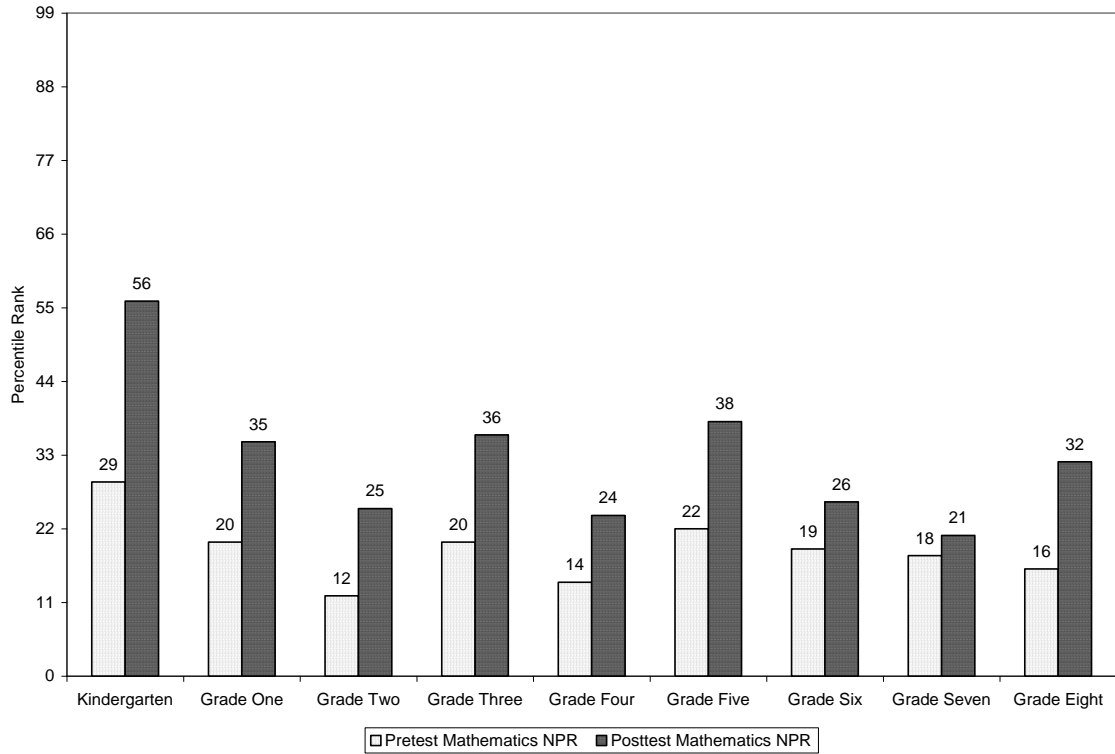


Figure 3. Pre- and Posttest Median National Percentile Ranks (NPR) in ITBS Mathematics.

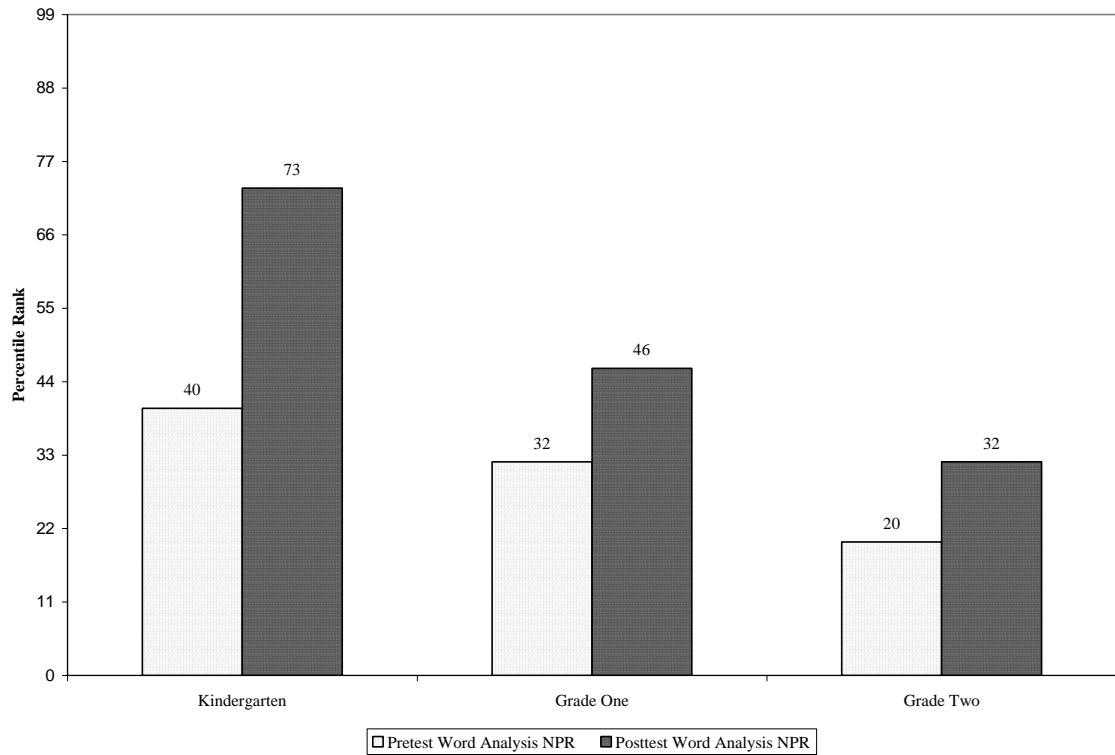


Figure 4. Pre- and Posttest Median Percentile Ranks in ITBS Word Analysis.

Because the pretest percentile ranks for Kindergarten Mathematics (*Mdn* NPR = 29), for Grade One Reading (*Mdn* NPR = 39) and for both grades in Word Analysis (*Mdn* NPRs = 40 and 32, respectively) may be classified as “average” to begin with, they tend not to represent a potential increase in performance. Nevertheless, what they do tend to exemplify is the increase of about a stanine or more—one that roughly translates into gains varying between 8 NPRs and 16 NPRs—that characterizes the typical gains made by most students served by Brain Hurricane.

Results: Additional Breakouts of Brain Hurricane Students by Grade/ITBS Test Level

As previously noted in the Introduction, the inclusion of student-level identifiers by state, district, and school facilitated analysis of other relevant ways to group and present student results. Although Brain Hurricane is headquartered in Chicago and provides supplemental educational services to a number of schools in the Chicago Public Schools, it also serves students in districts and schools across the state of Illinois as well in the states of California, Indiana, Michigan, and Virginia.

In breaking out the previous results by grade/test levels into smaller units, the purpose of the attached supplementary tables is to present empirical results that will assist Brain Hurricane in its self study. In a fashion similar to Table 1, the appended series of tables that follow highlight student performance by grade/test level in those states where the supplementary educational services provided by BH are most concentrated. Appended next is a table focused solely on student performance in the Chicago Public Schools.

Two final series of tables concern smaller units of analysis. In those districts and schools where the number of paired student scores equals or exceeds 10, grade/test level tables that, like Table 1, present both descriptive and inferential statistics are provided. However, in those districts in which fewer than ten pairs of student scores were observed, only descriptive statistics are provided and no inferential testing of student results is conducted. Whether or not a result is considered “statistically significant” is to a great extent a function on the number of observations under consideration. For this reason, CREP avoids statistical testing of groups smaller than 10. However, because computation of the effect size is almost completely independent of the number

of observations, effect size results have been retained as an indicator of the level of progress being made in districts where smaller numbers of BH students are being served.

Table 2

Comparison of Pretest and Posttest Performance for Kindergarten Students Served by Brain Hurricane: State Level Results

ITBS Core Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E. S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Kindergarten: All (Level 5)												
Word Analysis	93	57.5	17.7	69.2	19.2	21%	7.54 ***	0.64	17.0	K.3/40	22.0	1.1/73
Mathematics	83	61.1	19.6	71.9	17.7	18%	5.75 ***	0.58	18.0	K.4/29	22.0	K.8/56
Kindergarten: California (Level 5)												
Word Analysis	38	57.2	15.0	67.1	19.2	17%	3.99 ***	0.57	17.0	K.3/40	21.5	1.0/70
Mathematics	32	64.8	18.0	75.8	18.0	17%	3.02 **	0.60	19.0	K.5/37	23.5	1.0/68
Kindergarten: Illinois (Level 5)												
Word Analysis	4	33.3	5.4	43.3	11.2	30%	1.90	0.98	10.0	P.7/7	13.0	P.9/18
Mathematics	4	31.0	2.8	44.0	3.3	42%	15.00 ***	3.66	9.0	P.6/2	12.5	P.9/7
Kindergarten: Indiana (Level 5)												
Word Analysis	48	58.1	18.3	71.3	17.4	23%	5.82 ***	0.73	16.5	K.2/36	23.0	1.2/78
Mathematics	47	61.1	19.3	71.6	16.2	17%	4.68 ***	0.58	18.0	K.4/29	21.0	K.8/46
Kindergarten: Virginia (Level 5)												
Word Analysis	3	83.3	5.8	98.9	1.9	19%	5.29 ***	2.88	24.0	1.4/83	30.0	3.2/99

*** $p < .001$, ** $p < .01$

Table 3

Comparison of Pretest and Posttest Performance for Grade One Students Served by Brain Hurricane: State Level Results

ITBS Core Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E. S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Grade One: All (Level 6)												
Word Analysis	168	62.4	16.1	66.3	15.7	6%	3.24 **	0.25	22.0	1.2/32	24.0	1.5/46
Mathematics	167	55.2	16.2	63.7	16.3	15%	7.13 ***	0.53	19.0	1.1/20	23.0	1.5/35
Reading	112	55.2	24.1	64.1	22.9	16%	4.21 ***	0.38	10.0	1.4/39	13.0	1.6/61
Grade One: California (Level 6)												
Word Analysis	51	61.7	12.7	67.1	16.2	9%	2.62 *	0.37	22.0	1.2/32	25.0	1.6/55
Mathematics	50	56.9	13.9	65.0	17.3	14%	3.72 **	0.51	20.0	1.2/22	23.0	1.5/35
Reading	29	61.7	23.9	73.5	21.0	19%	3.20 **	0.52	13.0	1.6/61	15.0	1.8/72
Grade One: Illinois (Level 6)												
Word Analysis	82	62.2	19.3	63.7	16.3	2%	0.77	0.08	22.0	1.2/32	22.0	1.2/32
Mathematics	82	53.4	18.3	60.7	16.4	14%	4.11 ***	0.42	19.0	1.1/20	22.0	1.4/29
Reading	59	53.8	24.0	59.9	23.7	11%	1.99	0.26	9.0	1.4/30	11.0	1.5/50
Grade One: Indiana (Level 6)												
Word Analysis	31	62.3	12.1	71.1	12.3	14%	4.01 ***	0.71	23.0	1.3/39	25.0	1.6/55
Mathematics	31	54.7	12.2	68.2	13.4	25%	5.40 ***	1.03	19.0	1.1/20	25.0	1.7/47
Reading	20	43.2	17.5	60.5	20.6	40%	4.62 ***	0.89	7.5	1.3/19	12.5	1.6/57

*** $p < .001$, ** $p < .01$, * $p < .05$

Table 4

Comparison of Pretest and Posttest Performance for Grade Two Students Served by Brain Hurricane: State Level Results

ITBS Core Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Grade Two: All (Level 7)												
Word Analysis	186	65.3	17.9	71.8	17.7	10%	5.70 ***	0.36	23.0	1.7/20	26.0	2.2/32
Math Concepts	182	65.5	13.6	75.4	13.8	15%	11.77 ***	0.72	19.0	1.5/12	22.0	2.0/25
Reading	185	65.8	22.0	74.8	19.5	14%	8.53 ***	0.43	23.0	1.9/19	27.0	2.1/30
Grade Two: California (Level 7)												
Word Analysis	50	69.1	17.8	77.1	14.5	11%	4.13 ***	0.49	25.0	1.9/27	28.0	2.3/44
Math Concepts	48	70.8	14.2	78.9	12.5	11%	4.86 ***	0.60	21.0	1.8/19	23.0	2.1/31
Reading	49	68.3	22.2	75.8	19.3	11%	4.40 ***	0.36	25.0	2.0/26	28.0	2.2/34
Grade Two: Illinois (Level 7)												
Word Analysis	83	58.8	18.3	66.2	20.0	13%	3.75 ***	0.38	21.0	1.5/15	24.0	1.8/24
Math Concepts	83	60.9	13.1	73.0	15.5	20%	8.88 ***	0.84	18.0	1.3/8	21.0	1.8/19
Reading	83	60.2	21.6	71.3	20.2	19%	6.49 ***	0.53	19.0	1.6/13	26.0	2.0/28
Grade Two: Indiana (Level 7)												
Word Analysis	52	72.3	13.6	75.6	14.1	5%	1.89	0.24	25.0	1.9/27	27.0	2.2/37
Math Concepts	51	68.0	11.3	75.9	11.6	12%	6.73 ***	0.69	20.0	1.7/14	23.0	2.1/31
Reading	52	71.8	20.4	79.4	17.9	11%	3.93 ***	0.39	27.0	2.1/30	29.0	2.3/39

*** $p < .001$

Table 5

Comparison of Pretest and Posttest Performance for Grade Three Students Served by Brain Hurricane: State Level Results

ITBS Survey Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Grade Three: All (Level 9)												
Mathematics	202	44.4	18.6	55.2	19.0	24%	9.28 ***	0.57	14.0	2.7/20	18.0	3.3/36
Reading	208	36.5	16.2	48.6	19.2	33%	11.58 ***	0.68	9.0	2.5/17	13.0	3.0/32
Grade Three: California (Level 9)												
Mathematics	56	52.1	16.4	58.3	18.9	12%	2.86 **	0.34	16.0	3.0/28	18.0	3.3/36
Reading	55	36.9	14.8	46.1	17.9	25%	5.42 ***	0.56	9.0	2.5/17	13.0	3.0/32
Grade Three: Illinois (Level 9)												
Mathematics	95	37.6	17.3	53.1	19.1	41%	8.74 ***	0.84	12.0	2.4/12	17.0	3.2/32
Reading	100	35.7	16.7	49.7	20.0	39%	9.03 ***	0.76	9.0	2.5/17	14.0	3.2/37
Grade Three: Indiana (Level 9)												
Mathematics	51	48.6	19.0	55.9	18.8	15%	3.84 ***	0.39	16.0	3.0/28	18.0	3.3/36
Reading	51	38.3	17.0	48.0	18.7	25%	4.89 ***	0.54	9.0	2.5/17	14.0	3.2/37

*** $p < .001$, ** $p < .01$

Table 6

Comparison of Pretest and Posttest Performance for Grade Four Students Served by Brain Hurricane: State Level Results

ITBS Survey Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Grade Four: All (Level 9)												
Mathematics	144	57.1	20.1	66.6	18.3	17%	6.50 ***	0.49	18.0	3.3/14	21.0	3.7/24
Reading	148	48.1	20.1	57.0	19.9	18%	6.42 ***	0.44	13.0	3.0/14	15.0	3.5/22
Grade Four: California (Level 9)												
Mathematics	55	36.9	14.8	46.1	17.9	25%	5.42 ***	0.56	16.0	3.0/9	18.0	3.3/14
Reading	56	52.1	16.4	58.3	18.9	12%	2.86 **	0.34	9.0	2.5/6	13.0	3.0/14
Grade Four: Illinois (Level 9)												
Mathematics	100	35.7	16.7	49.7	20.0	39%	9.03 ***	0.76	12.0	2.4/3	17.0	3.2/11
Reading	95	37.6	17.3	53.1	19.1	41%	8.74 ***	0.84	9.0	2.5/6	14.0	3.2/18
Grade Four: Indiana (Level 9)												
Mathematics	51	38.3	17.0	48.0	18.7	25%	4.89 ***	0.54	16.0	3.0/9	18.0	3.3/14
Reading	51	48.6	19.0	55.9	18.8	15%	3.84 ***	0.39	9.0	2.5/6	14.0	3.2/18

*** $p < .001$, ** $p < .01$

Table 7

Comparison of Pretest and Posttest Performance for Grade Five Students Served by Brain Hurricane: State Level Results

ITBS Survey Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Grade Five: All (Level 11)												
Mathematics	110	43.8	16.2	50.1	16.6	14%	4.44 ***	0.38	16.0	4.4/22	20.0	5.1/38
Reading	111	44.2	16.6	49.0	19.0	11%	3.27 **	0.27	14.0	4.1/19	16.0	4.5/26
Grade Five: California (Level 11)												
Mathematics	31	48.6	17.4	52.1	18.4	7%	0.94	0.19	18.0	4.7/29	20.0	5.1/38
Reading	31	47.0	18.9	51.1	20.8	9%	1.41	0.21	14.0	4.1/19	17.0	4.8/31
Grade Five: Illinois (Level 11)												
Mathematics	69	42.5	15.2	50.0	16.1	17%	4.97 ***	0.47	16.0	4.4/22	20.0	5.1/38
Reading	69	43.8	15.6	48.6	18.2	11%	2.93 **	0.29	14.0	4.1/19	16.0	4.5/26
Grade Five: Indiana (Level 11)												
Mathematics	8	31.3	12.7	40.5	11.9	30%	3.20 *	0.71	10.5	3.5/7	14.5	4.2/18
Reading	8	42.6	15.3	42.2	18.1	-1%	0.07	0.02	13.0	3.9/15	12.5	3.8/14

*** $p < .001$, ** $p < .01$, * $p < .05$

Table 8

Comparison of Pretest and Posttest Performance for Grade Six Students Served by Brain Hurricane: State Level Results

ITBS Survey Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Grade Six: All (Level 11)												
Mathematics	123	50.1	18.9	55.0	21.7	10%	3.52 **	0.24	19.0	4.9/19	21.0	5.4/26
Reading	122	48.3	16.5	53.8	20.1	11%	3.62 ***	0.30	15.0	4.3/12	17.0	4.8/19
Grade Six: California (Level 11)												
Mathematics	38	53.5	17.8	57.3	21.3	7%	1.84	0.19	20.0	5.1/23	23.0	5.7/33
Reading	38	48.3	15.1	54.9	19.1	14%	3.65 **	0.38	15.0	4.3/12	18.0	5.0/22
Grade Six: Illinois (Level 11)												
Mathematics	80	47.5	18.9	53.6	22.1	13%	3.76 **	0.30	16.0	4.4/12	19.0	4.9/19
Reading	79	47.4	16.6	53.6	20.6	13%	3.41 ***	0.33	14.0	4.1/10	17.0	4.8/19
Grade Six: Indiana (Level 11)												
Mathematics	4	60.1	10.2	67.6	10.1	12%	1.46	0.64	23.0	5.7/33	24.5	6.2/38
Reading	4	53.9	11.8	55.5	12.1	3%	0.38	0.11	17.0	4.8/19	17.5	4.9/21

*** $p < .001$, ** $p < .01$

Table 9

Comparison of Pretest and Posttest Performance for Grade Seven Students Served by Brain Hurricane: State Level Results

ITBS Survey Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Grade Seven: All (Level 12)												
Mathematics	75	51.60	19.17	55.01	21.06	7%	2.09 *	0.17	21.0	5.5/18	22.0	4.7/21
Reading	76	41.56	14.53	42.93	17.17	3%	1.02	0.09	14.0	4.6/12	15.0	4.8/14
Grade Seven: California (Level 12)												
Mathematics	25	55.30	22.12	60.90	22.99	10%	2.07 *	0.24	21.0	5.5/18	26.0	6.7/33
Reading	25	42.82	11.86	44.00	15.20	3%	0.47	0.08	14.0	4.6/12	16.0	5.1/17
Grade Seven: Illinois (Level 12)												
Mathematics	49	49.03	16.88	51.40	19.22	5%	1.14	0.13	20.0	5.3/16	21.0	5.5/18
Reading	50	40.88	15.90	41.90	18.00	2%	0.65	0.06	14.0	4.6/12	13.5	4.5/11

* $p < .05$

Table 10

Comparison of Pretest and Posttest Performance for Grade Eight Students Served by Brain Hurricane: State Level Results

ITBS Survey Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>t</i>	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> GE/PR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> GE/PR post
Grade Eight: All (Level 12)												
Mathematics	66	57.99	18.20	63.71	21.17	10%	3.00 **	0.29	23.0	6.0/16	28.0	6.7/32
Reading	67	52.02	18.30	56.76	17.22	9%	2.93 **	0.27	17.0	5.3/13	19.0	6.0/19
Grade Eight: California (Level 12)												
Mathematics	22	57.95	20.58	66.36	21.87	15%	2.24 *	0.39	24.5	6.3/21	30.5	8.0/43
Reading	23	52.30	18.79	57.67	18.83	10%	1.44	0.28	18.0	5.6/16	19.0	6.0/19
Grade Eight: Illinois (Level 12)												
Mathematics	43	58.43	17.12	63.14	20.57	8%	2.15 **	0.25	23.0	6.0/16	26.0	6.7/24
Reading	43	52.60	17.82	56.77	16.40	8%	2.69 *	0.24	17.0	5.3/13	19.0	6.0/19

** $p < .01$, * $p < .05$

Table 11

Comparison of Pretest and Posttest Performance of Chicago Public School District Students Served by Brain Hurricane by Grade/ITBS Test Level

ITBS Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Grade One (Level 6)												
Word Analysis	69	63.3	19.9	63.5	17.1	< 1%	0.07	0.01	23.0	1.3/39	22.0	1.2/32
Mathematics	68	54.3	18.6	61.3	16.6	13%	3.38 **	0.40	19.0	1.1/20	22.0	1.4/29
Reading	47	58.2	24.6	63.6	24.0	9%	1.44	0.22	10.0	1.4/39	12.0	1.5/54
Grade Two (Level 7)												
Word Analysis	73	57.4	17.8	64.7	20.1	13%	3.31 **	0.38	20.0	1.4/13	23.0	1.7/20
Math Concepts	74	59.5	12.5	71.7	15.7	21%	8.22 ***	0.86	17.0	1.2/5	21.0	1.8/19
Reading	73	59.2	21.8	70.3	20.6	19%	6.07 ***	0.52	18.0	1.5/11	25.0	2.0/26
Grade Three (Level 9)												
Mathematics	85	37.5	17.8	53.9	18.3	44%	9.09 ***	0.90	12.0	2.4/12	17.0	3.2/32
Reading	90	35.6	16.8	50.0	20.1	40%	8.68 ***	0.77	9.0	2.5/17	14.0	3.2/37
Grade Four (Level 9)												
Mathematics	64	51.5	20.7	65.9	19.3	28%	9.48 ***	0.72	17.0	3.2/11	21.0	3.7/24
Reading	63	48.3	22.1	59.3	21.9	23%	6.06 ***	0.50	12.0	2.9/12	17.0	3.7/28
Grade Five (Level 11)												
Mathematics	50	42.4	16.7	48.5	16.4	14%	3.44 **	0.36	15.5	4.3/21	19.0	4.9/33
Reading	50	41.3	16.4	47.9	18.9	16%	3.43 **	0.37	13.0	3.9/15	15.5	4.4/24
Grade Six (Level 11)												
Mathematics	53	45.0	17.8	54.2	21.8	21%	5.90 **	0.46	15.0	4.2/9	19.0	4.9/19
Reading	52	46.1	15.8	52.3	20.3	13%	2.77 **	0.34	13.5	4.0/9	15.5	4.4/14
Grade Seven (Level 12)												
Mathematics	41	47.6	16.7	50.1	19.8	5%	1.16	0.14	20.0	5.3/16	20.0	5.3/16
Reading	42	40.6	15.8	41.1	18.0	1%	0.30	0.03	13.5	4.5/11	14.5	4.7/13
Grade Eight (Level 12)												
Mathematics	39	58.1	17.4	63.5	21.1	9%	2.28 *	0.28	23.0	6.0/16	26.0	6.7/24
Reading	39	52.7	18.1	57.3	16.3	9%	2.73 **	0.26	17.0	5.3/13	19.0	6.0/19

*** $p < .001$, ** $p < .01$, * $p < .05$

Table 12

Comparison of Pretest and Posttest Performance for Kindergarten Students Served by Brain Hurricane: Results from Large Districts and Schools within Districts (n pairs >= 10)

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Kindergarten (Level 5)												
District = Stockton												
Word Analysis	28	58.9	16.3	70.7	18.5	20%	4.23 ***	0.67	17.0	K.3/40	22.5	1.2/77
Mathematics	22	71.8	16.7	81.7	16.1	14%	2.03	0.59	21.0	K.8/46	25.5	1.3/87
District = Goshen												
Word Analysis	19	56.8	18.4	69.3	20.5	22%	3.73 **	0.63	16.0	K.2/33	23.0	1.2/78
Mathematics	18	62.3	19.9	69.9	19.6	12%	3.14 **	0.38	19.0	K.6/42	22.5	K.9/60
School = West Goshen Elementary												
Word Analysis	14	54.8	14.9	69.8	18.0	27%	4.06 **	0.88	15.0	K.1/31	23.0	1.2/78
Mathematics	13	61.8	18.1	72.1	20.5	17%	4.92 ***	0.52	19.0	K.5/37	24.0	1.1/68

*** $p < .001$, ** $p < .01$

Table 13

Comparison of Pretest and Posttest Performance for Grade One Students Served by Brain Hurricane: Results from Large Districts and Schools within Districts (n pairs >= 10)

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Grade One (Level 6)												
District = Stockton												
Word Analysis	11	55.8	10.0	53.2	13.4	-5%	-0.55	-0.21	20.0	1.0/20	16.0	K.4/7
Mathematics	10	49.1	10.2	50.6	10.2	3%	0.27	0.13	17.5	1.0/13	18.0	1.0/16
Reading.	3	47.4	22.9	45.6	19.9	-4%	-1.00	-0.07	7.0	1.2/19	7.0	1.2/19
District = Chicago Public Schools												
Word Analysis	69	63.3	19.9	63.5	17.1	< 1%	0.07	0.01	23.0	1.3/39	22.0	1.2/32
Mathematics	68	54.3	18.6	61.3	16.6	13%	3.38 **	0.40	19.0	1.1/20	22.0	1.4/29
Reading	47	58.2	24.6	63.6	24.0	9%	1.44	0.22	10.0	1.4/39	12.0	1.5/54
District = North Chicago												
Word Analysis	13	56.0	14.5	64.6	11.9	15%	2.08	0.63	19.0	K.8/17	23.0	1.3/39
Mathematics	14	49.0	16.6	57.8	15.4	18%	3.23 **	0.53	16.5	K.9/10	20.0	1.2/22
Reading.	12	36.4	9.6	45.6	16.1	25%	2.07	0.67	7.5	1.3/23	8.5	1.4/30
School = Chavez												
Word Analysis	14	86.3	10.2	70.2	21.3	-19%	-2.85 *	-0.94	31.0	2.7/91	26.0	2.0/60
Mathematics	14	72.0	16.6	71.0	14.7	-1%	-0.21	-0.06	27.5	2.0/60	24.0	1.6/41
Reading.	12	67.5	23.8	66.7	22.7	-1%	-0.10	-0.04	12.0	1.5/54	12.0	1.5/54
School = Falconer												
Word Analysis	18	55.8	19.2	59.7	17.5	7%	1.16	0.20	23.5	1.4/41	21.5	1.2/29
Mathematics	17	49.2	20.6	53.6	20.6	9%	0.84	0.21	18.0	1.0/16	19.0	1.1/20
School = Linne												
Word Analysis	13	62.0	17.8	64.2	13.6	4%	0.70	0.13	21.0	1.1/26	24.0	1.5/46
Mathematics	13	45.5	14.1	59.1	16.2	30%	4.59 ***	0.87	16.0	K.8/8	21.0	1.3/24
Reading.	13	64.8	26.3	69.2	22.0	7%	0.92	0.18	12.0	1.5/54	13.0	1.6/61
School = North												
Word Analysis	10	52.0	13.7	61.7	11.0	19%	1.82	0.75	18.5	K.8/13	22.5	1.3/34
Mathematics	11	49.4	13.9	57.1	13.6	16%	3.01 *	0.54	17.0	K.9/12	20.0	1.2/22
Reading.	9	33.3	8.7	39.2	11.8	18%	1.12	0.54	7.0	1.2/19	8.0	1.3/27

*** $p < .001$, ** $p < .01$, * $p < .05$

Table 14

Comparison of Pretest and Posttest Performance for Grade Two Students Served by Brain Hurricane: Results from Large Districts and Schools within Districts (n pairs >= 10)

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Grade Two (Level 7)												
District = Santa Ana												
Word Analysis	11	68.8	16.2	80.3	12.5	17%	2.55 *	0.76	25.0	1.9/27	28.0	2.3/44
Math Concepts	11	60.8	12.7	76.5	17.6	26%	4.05 **	0.98	18.0	1.3/8	24.0	2.3/37
Reading	11	65.8	22.8	77.3	16.5	17%	2.73 *	0.56	25.0	2.0/26	28.0	2.2/26
District = Stockton												
Word Analysis	17	77.3	16.0	84.2	10.4	9%	1.90	0.50	29.0	2.5/51	30.0	2.8/58
Math Concepts	16	81.0	14.7	83.4	11.8	3%	0.77	0.17	25.5	2.7/57	24.0	2.3/37
Reading	16	75.4	21.4	84.6	15.1	12%	4.07 **	0.48	29.0	2.3/39	30.0	2.4/47
District = Chicago Public Schools												
Word Analysis	73	57.4	17.8	64.7	20.1	13%	3.31 **	0.38	20.0	1.4/13	23.0	1.7/20
Math Concepts	74	59.5	12.5	71.7	15.7	21%	8.22 ***	0.86	17.0	1.2/5	21.0	1.8/19
Reading	73	59.2	21.8	70.3	20.6	19%	6.07 ***	0.52	18.0	1.5/11	25.0	2.0/26
District = North Chicago												
Word Analysis	10	69.4	19.5	77.4	16.0	12%	2.49 *	0.43	25.0	2.0/31	29.0	2.5/51
Math Concepts	9	73.2	12.4	83.9	7.7	15%	3.78 **	0.99	22.0	2.0/25	25.0	2.5/50
Reading	10	67.1	19.9	78.8	16.2	18%	2.18	0.62	22.0	1.8/17	26.5	2.1/30
District = East Chicago												
Word Analysis	17	71.1	12.4	70.8	13.6	0%	0.10	-0.03	25.0	1.9/27	27.0	2.2/39
Math Concepts	16	65.3	11.1	75.6	8.9	16%	4.21 ***	1.01	18.0	1.3/8	23.0	2.1/31
Reading	17	79.6	13.9	79.9	17.3	0%	0.12	0.02	29.0	2.3/39	29.0	2.3/39
District = Goshen												
Word Analysis	10	79.4	7.7	81.4	9.8	3%	0.83	0.22	28.0	2.3/44	28.0	2.3/44
Math Concepts	9	73.9	6.9	82.8	11.7	12%	3.34 *	0.87	22.0	2.0/25	24.0	2.3/37
Reading	10	77.1	18.0	82.9	16.3	8%	3.25 **	0.33	28.5	2.3/37	29.5	2.4/44
School = Cardenas												
Word Analysis	14	51.4	14.0	61.4	16.0	19%	2.40	0.65	17.0	1.1/6	21.0	1.5/10
Math Concepts	14	62.3	8.9	75.1	16.7	21%	3.37 **	0.93	18.0	1.3/8	22.0	2.0/31
Reading	14	50.8	19.3	58.6	20.0	15%	2.33 *	0.38	14.5	1.4/6	20.0	1.6/14
School = Falconer												
Word Analysis	20	56.0	22.7	69.1	18.0	23%	2.41 *	0.63	19.5	1.4/11	23.5	1.6/22
Math Concepts	20	57.8	18.3	74.8	16.9	30%	5.29 ***	0.95	17.0	1.2/5	22.0	2.0/25
Reading	19	65.0	23.4	72.6	16.4	12%	1.99	0.37	20.0	1.6/14	26.0	2.0/28
School = Linne												
Word Analysis	10	49.4	16.7	56.3	16.1	14%	2.23	0.40	17.0	1.1/2	20.5	1.5/14
Math Concepts	11	55.5	9.2	62.4	14.0	12%	3.03 *	0.56	16.0	1.1/4	17.0	1.2/5
Reading	11	61.5	21.7	68.7	28.0	12%	1.23	0.28	18.0	1.5/13	27.0	2.1/31
School = West Goshen												
Word Analysis	10	79.4	7.7	81.4	9.8	3%	0.83	0.22	28.0	2.3/44	28.0	2.3/44
Math Concepts	9	73.9	6.9	82.8	11.7	12%	3.34 *	0.87	22.0	2.0/25	24.0	2.3/37
Reading	10	77.1	18.0	82.9	16.3	8%	3.25 **	0.33	28.5	2.3/37	29.5	2.4/44

*** $p < .001$, ** $p < .01$, * $p < .05$

Table 15

Comparison of Pretest and Posttest Performance for Grade Three Students Served by Brain Hurricane: Results from Large Districts and Schools within Districts (n pairs >= 10)

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Grade Three (Level 9)												
District = Montebello												
Mathematics	14	53.3	14.9	58.0	25.5	9%	0.88	0.22	17.5	3.3/33	21.0	3.7/54
Reading	14	33.6	15.3	47.4	18.7	41%	3.59 **	0.78	8.0	2.3/12	13.0	3.0/32
District = Chicago Public Schools												
Mathematics	85	37.5	17.8	53.9	18.3	44%	9.09 ***	0.90	12.0	2.4/12	17.0	3.2/32
Reading	90	35.6	16.8	50.0	20.1	40%	8.68 ***	0.77	9.0	2.5/17	14.0	3.2/37
District = North Chicago												
Mathematics	10	39.1	13.1	46.6	24.5	19%	1.13	0.37	13.0	2.5/15	15.0	2.9/24
Reading	10	36.3	17.5	47.4	19.3	31%	2.44 *	0.58	9.0	2.5/17	13.0	3.0/32
District = Goshen												
Mathematics	12	61.2	18.4	65.9	19.1	8%	1.13	0.24	18.0	3.3/36	20.0	3.6/49
Reading	12	46.6	20.1	56.5	17.2	21%	2.51 *	0.51	14.5	3.3/40	15.0	3.4/42
District = Hammond												
Mathematics	11	48.6	11.8	58.2	14.0	20%	1.84	0.72	16.0	3.0/28	20.0	3.6/49
Reading	11	41.4	13.2	52.5	13.5	27%	2.33 *	0.80	11.0	2.8/24	15.0	3.4/42
District = West Noble												
Mathematics	10	45.3	21.7	49.4	23.0	9%	1.08	0.17	14.0	2.7/20	14.0	2.7/20
Reading	10	30.4	14.4	41.9	22.2	38%	2.50 *	0.59	8.0	2.3/12	12.0	2.9/27
School = Cardenas												
Mathematics	11	40.9	14.8	52.8	14.4	29%	3.54 **	0.78	14.0	2.7/20	16.0	3.0/28
Reading	11	37.4	12.9	39.1	15.4	5%	0.51	0.11	11.0	2.8/24	10.0	2.6/21
School = Chavez												
Mathematics	13	40.9	22.2	54.3	21.1	33%	3.80 **	0.60	12.0	2.4/12	18.0	3.3/36
Reading	13	34.5	19.6	46.4	21.4	35%	3.13 **	0.56	9.0	2.5/17	13.0	3.0/32
School = Falconer												
Mathematics	22	30.3	16.1	56.0	20.1	85%	6.25 ***	1.39	8.5	2.1/4	18.5	3.4/38
Reading	21	35.6	19.3	53.8	19.2	51%	7.33 ***	0.93	7.0	2.1/8	14.0	3.2/37
School = West Goshen												
Mathematics	12	61.2	18.4	65.9	19.1	8%	1.13	0.24	18.0	3.3/35	20.0	3.6/47
Reading	12	46.6	20.1	56.5	17.2	21%	2.51 *	0.51	14.5	3.3/38	15.0	3.4/42
School = West Noble												
Mathematics	10	45.3	21.7	49.4	23.0	9%	1.08	0.17	14.0	2.7/21	14.0	2.7/21
Reading	10	30.4	14.4	41.9	22.2	38%	2.50 *	0.59	8.0	2.3/12	12.0	2.9/27

*** $p < .001$, ** $p < .01$, * $p < .05$

Table 16

Comparison of Pretest and Posttest Performance for Grade Four Students Served by Brain Hurricane: Results from Large Districts and Schools within Districts (n pairs >= 10)

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Grade Four (Level 9)												
District = Stockton												
Mathematics	18	63.3	21.2	64.3	22.2	2%	0.31	0.05	21.0	3.7/24	22.5	4.0/31
Reading	18	43.2	17.9	54.9	15.7	27%	5.82 ***	0.68	12.0	2.9/12	14.5	3.3/21
District = Chicago Public Schools												
Mathematics	64	51.5	20.7	65.9	19.3	28%	9.48 ***	0.72	17.0	3.2/11	21.0	3.7/24
Reading	63	48.3	22.1	59.3	21.9	23%	6.06 ***	0.50	12.0	2.9/12	17.0	3.7/28
District = North Chicago												
Mathematics	13	61.5	17.5	70.0	10.6	14%	2.09	0.57	18.0	3.3/14	22.0	3.9/27
Reading	13	45.0	16.8	58.1	14.4	29%	4.90 ***	0.81	12.0	2.9/12	15.0	3.4/22
School = Chavez												
Mathematics	13	59.1	15.3	64.0	16.0	8%	1.87	0.31	17.0	3.2/11	19.0	3.5/18
Reading	13	39.0	20.4	50.4	19.9	29%	3.55 ***	0.55	8.0	2.3/3	14.0	3.2/18
School = Falconer												
Mathematics	15	42.6	24.1	71.6	12.4	68%	4.81 ***	1.47	9.0	2.1/1	22.0	3.9/27
Reading	15	51.1	20.2	60.5	21.9	18%	1.91	0.43	13.0	3.0/14	18.0	3.9/32
School = Grant												
Mathematics	14	62.0	22.4	62.9	20.7	1%	0.22	0.04	20.0	3.6/21	21.5	3.8/26
Reading	14	39.9	17.9	54.2	15.8	36%	7.24 ***	0.82	11.0	2.3/9	14.5	2.8/21

*** $p < .001$, ** $p < .01$, * $p < .05$

Table 17

Comparison of Pretest and Posttest Performance for Grade Five Students Served by Brain Hurricane: Results from Large Districts and Schools within Districts (n pairs >= 10)

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Grade Five (Level 11)												
District = Chicago Public Schools												
Mathematics	50	42.4	16.7	48.5	16.4	14%	3.44 **	0.36	15.5	4.3/21	19.0	4.9/33
Reading	50	41.3	16.4	47.9	18.9	16%	3.43 **	0.37	13.0	3.9/15	15.5	4.4/24
District = North Chicago												
Mathematics	19	42.8	10.6	53.9	15.0	26%	4.01 ***	0.84	16.0	4.4/22	22.0	5.6/48
Reading	19	50.2	11.6	50.5	16.5	1%	0.10	0.02	17.0	4.8/31	16.0	4.5/26
School = A.J. Katzenmeier												
Mathematics	13	43.0	10.6	50.1	14.4	16%	2.07	0.54	16.0	4.4/22	21.0	5.4/43
Reading	13	50.7	10.5	46.2	13.7	-9%	-1.21	-0.36	17.0	4.8/31	15.0	4.3/20
School = Chavez												
Mathematics	13	40.3	16.9	43.2	16.4	7%	1.07	0.17	15.0	4.2/19	17.0	4.5/26
Reading	13	43.0	16.6	46.6	20.3	8%	1.32	0.19	13.0	3.9/15	13.0	3.9/15
School = Falconer												
Mathematics	13	55.5	13.3	55.7	12.8	0%	0.07	0.02	21.0	5.4/43	22.0	5.6/48
Reading	14	51.1	16.9	58.0	16.8	14%	1.72	0.40	15.5	4.4/25	19.0	5.3/40

*** $p < .001$, ** $p < .01$

Table 18

Comparison of Pretest and Posttest Performance for Grade Six Students Served by Brain Hurricane: Results from Large Districts and Schools within Districts (n pairs >= 10)

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Grade Six (Level 11)												
District = Chicago Public Schools												
Mathematics	53	45.0	17.8	54.2	21.8	21%	5.90 **	0.46	15.0	4.2/9	19.0	4.9/19
Reading	52	46.1	15.8	52.3	20.3	13%	2.77 **	0.34	13.5	4.0/9	15.5	4.4/14
District = Waukegan												
Mathematics	27	52.6	20.3	52.6	22.9	0%	0.00	0.00	23.0	5.7/33	18.0	4.7/16
Reading	27	50.0	18.0	56.1	21.4	12%	1.95	0.31	17.0	4.8/19	19.0	5.3/27
School = Abbott												
Mathematics	13	53.0	21.9	43.9	23.0	-17%	-1.61	-0.39	23.0	5.7/33	15.0	4.2/12
Reading	12	53.6	22.1	59.9	22.9	12%	1.28	0.27	20.0	5.4/30	21.5	6.0/36
School = Falconer												
Mathematics	13	51.7	19.6	64.0	26.3	24%	3.43 **	0.52	15.0	4.2/12	20.0	5.1/23
Reading	13	48.4	19.4	57.5	18.5	19%	3.32 **	0.46	16.0	4.5/15	24.0	6.8/49
School = Jefferson												
Mathematics	14	52.1	19.5	60.6	20.4	16%	3.11 **	0.41	21.0	5.4/26	24.5	6.2/38
Reading	15	47.1	14.0	53.1	20.3	13%	1.42	0.34	15.0	4.3/12	18.0	5.0/22

** p < .01

Table 19

Comparison of Pretest and Posttest Performance for Grade Seven Students Served by Brain Hurricane: Results from Large Districts and Schools within Districts (n pairs >= 10)

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Grade Seven (Level 12)												
District = Chicago Public Schools												
Mathematics	41	47.6	16.7	50.1	19.8	5%	1.16	0.14	20.0	5.3/16	20.0	5.3/16
Reading	42	40.6	15.8	41.1	18.0	1%	0.30	0.03	13.5	4.5/11	14.5	4.7/13
School = Chavez												
Mathematics	12	52.7	20.5	57.1	17.2	8%	1.36	0.22	20.5	5.4/17	24.0	6.3/28
Reading	12	39.0	17.4	39.5	14.5	1%	0.27	0.03	11.5	4.0/6	11.5	4.0/6
School = Madero												
Mathematics	12	51.0	10.1	55.8	16.8	9%	0.99	0.33	21.0	5.6/18	23.5	6.2/27
Reading	13	43.4	14.2	43.9	15.3	1%	0.24	0.03	15.0	4.8/14	16.0	5.1/17

Table 20

Comparison of Pretest and Posttest Performance for Grade Eight Students Served by Brain Hurricane: Results from Large Districts and Schools within Districts (n pairs >= 10)

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	t	E.S. (d)	Mdn Raw Tot pre	Mdn GE/PR pre	Mdn Raw Tot post	Mdn GE/PR post
Grade Eight (Level 12)												
District = Chicago Public Schools												
Mathematics	39	58.1	17.4	63.5	21.1	9%	2.28 *	0.28	23.0	6.0/16	26.0	6.7/24
Reading	39	52.7	18.1	57.3	16.3	9%	2.73 **	0.26	17.0	5.3/13	19.0	6.0/19
School = Chavez												
Mathematics	21	58.7	17.9	66.4	19.0	13%	2.95 **	0.41	24.0	6.3/19	28.0	7.3/32
Reading	21	53.2	20.1	57.7	16.6	8%	2.51 *	0.24	17.0	5.3/13	19.0	6.0/19

** $p < .01$, * $p < .05$

Table 21

Comparison of Pretest and Posttest Performance for Kindergarten Students Served by Brain Hurricane: Results from All Districts

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Corona-Narco Unified School District													
Word Analysis	2	55.0	7.1	76.7	14.1	39%	1.09	16.5	K.2	36	23.0	1.2	78
Mathematics	2	55.2	9.8	74.1	7.3	34%	1.24	16.0	K.2	22	21.5	K.8	51
District = East Chicago													
Word Analysis	9	58.5	14.7	73.7	17.5	26%	0.89	18.0	K.5	40	23.0	1.2	78
Mathematics	9	62.5	16.5	65.5	15.4	5%	0.18	18.0	K.4	29	18.0	K.4	42
District = El Monte													
Word Analysis	2	45.0	2.4	50.0	33.0	11%	0.12	13.5	K.0	20	15.0	K.1	31
Mathematics	2	43.1	12.2	67.2	26.8	56%	0.65	12.5	P.9	7	19.5	K.6	42
District = Fontana Unified School District													
Word Analysis	4	60.0	8.2	58.3	8.8	-3%	-0.17	18.5	K.6	46	18.0	K.5	46
Mathematics	4	49.1	3.3	64.7	10.3	32%	1.76	14.5	K.1	13	19.0	K.5	37
District = Fort Wayne													
Word Analysis	6	60.0	18.1	73.9	11.4	23%	0.85	17.5	K.4	43	22.5	1.2	77
Mathematics	5	62.1	16.0	81.4	8.7	31%	1.36	18.0	K.4	29	25.0	1.2	80
District = Frankfort													
Word Analysis	1	40.0	.	36.7	.	-8%	.	12.0	P.9	13	11.0	P.7	10
Mathematics	1	62.1	.	65.5	.	6%	.	18.0	K.4	29	19.0	K.5	37
District = Goshen													
Word Analysis	19	56.8	18.4	69.3	20.5	22%	0.63	16.0	K.2	33	23.0	1.2	78
Mathematics	18	62.3	19.9	69.9	19.6	12%	0.38	19.5	K.6	42	22.5	K.9	60
District = Hammond													
Word Analysis	5	60.7	27.6	76.7	7.8	26%	0.71	21.0	K.9	66	24.0	1.4	83
Mathematics	6	45.4	24.1	71.3	11.0	57%	1.27	10.0	P.7	3	21.0	K.8	46
District = Hampton													
Word Analysis	3	83.3	5.8	98.9	1.9	19%	2.88	24.0	1.4	83	30.0	3.2	99
District = Indianapolis													
Word Analysis	1	56.7	.	63.3	.	12%	.	17.0	K.3	40	19.0	K.6	52
Mathematics	1	89.7	.	75.9	.	-15%	.	26.0	1.4	94	22.0	K.8	56
District = Montebello Unified School District													
Word Analysis	2	41.7	7.1	41.7	7.1	0%	0.00	12.5	P.9	17	12.5	P.9	17
Mathematics	2	50.0	17.1	43.1	2.4	-14%	-0.32	14.5	K.1	13	12.5	P.9	7

Table 21 Continues

Table 21 Continued

ITBS Core Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> G.E. pre	<i>Mdn</i> NPR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> G.E. post	<i>Mdn</i> NPR Post
District = North Chicago													
Word Analysis	4	33.3	5.4	43.3	11.2	30%	0.98	10.0	P.7	7	13.0	P.9	17
Mathematics	4	31.0	2.8	44.0	3.3	42%	3.66	9.0	P.6	2	12.5	P.9	7
District = Perry Township													
Word Analysis	4	63.3	20.5	81.7	10.4	29%	0.98	18.5	K.6	46	24.5	1.5	86
Mathematics	4	62.9	22.9	74.1	19.0	18%	0.46	18.5	K.5	33	21.0	K.8	46
District = Stockton													
Word Analysis	28	58.9	16.3	70.7	18.5	20%	0.67	17.0	K.3	40	22.5	1.2	77
Mathematics	22	71.8	16.7	81.7	16.1	14%	0.59	21.0	K.8	46	25.5	1.3	87
District = West Noble													
Word Analysis	3	55.6	26.9	62.2	20.1	12%	0.22	12.0	P.9	13	18.0	K.5	46
Mathematics	3	67.8	12.1	81.6	13.9	20%	0.84	20.0	K.6	42	23.0	K.9	64

Table 22

Comparison of Pretest and Posttest Performance for Grade One Students Served by Brain Hurricane: Results from All Districts

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR Post
District = Bassett													
Word Analysis	8	63.2	18.2	58.2	15.6	-8%	-0.28	21.5	1.2	29	22.0	1.2	32
Mathematics	8	56.4	17.8	60.4	18.8	7%	0.20	21.0	1.3	24	22.5	1.5	32
Reading	4	68.4	28.8	60.5	23.3	-12%	-0.26	15.0	1.8	72	12.0	1.5	54
District = Beecher													
Word Analysis	1	80.0	.	80.0	.	0%	.	28.0	2.2	74	28.0	2.2	74
Mathematics	1	57.1	.	77.1	.	35%	.	20.0	1.2	22	27.0	1.9	64
Reading	1	100.0	.	52.6	.	-47%	.	19.0	2.9	95	10.0	1.4	39
District = Chicago Public Schools													
Word Analysis	69	63.3	19.9	63.5	17.1	0%	0.01	23.0	1.3	39	22.0	1.2	32
Mathematics	68	54.3	18.6	61.3	16.6	13%	0.40	19.0	1.1	20	22.0	1.4	29
Reading	47	58.2	24.6	63.6	24.0	9%	0.22	10.0	1.4	39	12.0	1.5	54
District = Chino Valley Unified School District													
Word Analysis	1	74.3	.	77.1	.	4%	.	26.0	1.8	60	27.0	2.0	66
Mathematics	1	42.9	.	82.9	.	93%	.	15.0	K.6	7	29.0	2.2	79
Reading	1	57.9	.	78.9	.	36%	.	11.0	1.5	50	15.0	1.8	72
District = Corona-Narco Unified School District													
Word Analysis	5	67.4	10.2	70.3	5.9	4%	0.31	24.0	1.5	46	25.0	1.6	55
Mathematics	5	57.7	4.2	59.4	14.6	3%	0.14	20.0	1.2	22	23.0	1.5	35
Reading	1	73.7	.	94.7	.	29%	.	14.0	1.7	67	18.0	2.3	88
District = East Chicago													
Word Analysis	9	54.3	13.8	69.5	13.6	28%	1.06	20.0	1.0	20	26.0	1.8	60
Mathematics	9	51.1	9.3	65.7	12.4	29%	1.27	19.0	1.1	20	24.0	1.6	41
Reading	7	43.6	22.1	58.6	24.8	34%	0.60	10.0	1.4	39	12.0	1.5	54
District = El Monte													
Word Analysis	2	70.0	10.1	71.4	0.0	2%	0.11	24.5	1.6	46	25.0	1.6	55
Mathematics	2	64.3	6.1	82.9	4.0	29%	2.03	22.5	1.5	32	29.0	2.2	79
District = Elkhart													
Word Analysis	2	60.0	4.0	82.9	8.1	38%	2.02	21.0	1.1	26	29.0	2.4	80
Mathematics	2	71.4	0.0	75.7	6.1	6%	0.56	25.0	1.7	47	26.5	1.9	61
Reading	2	52.6	22.3	84.2	22.3	60%	0.80	10.0	1.4	39	16.0	1.9	74
District = Fontana Unified School District													
Word Analysis	6	61.0	11.2	80.0	6.5	31%	1.91	22.5	1.3	34	28.5	2.3	77
Mathematics	6	52.9	10.7	77.6	7.1	47%	2.52	19.5	1.2	33	27.5	2.0	69
Reading	4	56.6	13.8	81.6	15.2	44%	1.49	11.5	1.5	54	15.5	1.9	74
District = Frankfort													
Word Analysis	1	65.7	.	62.9	.	-4%	.	23.0	1.3	39	22.0	1.2	32
Mathematics	1	51.4	.	60.0	.	17%	.	18.0	1.0	16	21.0	1.3	24
District = Gary													
Word Analysis	5	69.7	8.9	76.0	4.8	9%	0.79	23.0	1.3	39	27.0	2.0	66
Mathematics	5	57.7	13.8	70.9	10.6	23%	0.97	20.0	1.2	22	25.0	1.7	47

Table 22 Continues

Table 22 Continued

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR Post
District = Goshen													
Word Analysis	6	63.3	7.3	77.6	10.4	23%	1.46	22.0	1.3	32	27.0	2.0	66
Mathematics	6	57.6	14.2	77.6	7.1	35%	1.65	20.0	1.2	22	27.0	1.9	64
Reading	6	39.5	8.6	61.4	12.3	56%	1.90	7.0	1.2	19	12.0	1.5	54
District = Hammond													
Word Analysis	3	67.6	20.1	55.2	9.2	-18%	-0.63	23.0	1.3	39	18.0	K.7	12
Mathematics	3	59.0	15.7	76.2	7.2	29%	1.12	18.0	1.0	16	27.0	1.9	64
District = Hampton City Schools													
Word Analysis	3	75.2	3.3	73.3	11.9	-3%	-0.17	27.0	2.0	66	27.0	2.0	66
Mathematics	3	80.0	10.3	76.2	7.2	-5%	-0.34	27.0	1.9	64	27.0	1.9	64
Reading	3	86.0	8.0	82.5	16.1	-4%	-0.22	16.0	1.8	74	15.0	1.8	72
District = Lodi School District													
Word Analysis	2	78.6	10.1	92.9	2.0	18%	1.11	27.5	2.1	70	32.5	3.8	97
Mathematics	2	77.1	8.1	82.9	0.0	7%	0.56	27.0	1.9	64	29.0	2.2	79
Reading	2	65.8	18.6	86.8	3.7	32%	0.89	12.5	1.6	57	16.5	2.0	79
District = Montebello Unified School District													
Word Analysis	4	57.1	9.9	60.7	18.3	6%	0.21	20.0	1.0	20	20.0	1.0	20
Mathematics	4	62.9	0.0	51.4	19.1	-18%	-0.74	22.0	1.4	24	17.0	K.9	12
Reading	2	84.2	0.0	63.2	7.4	-25%	-2.26	16.0	1.9	74	12.0	1.5	54
District = North Chicago													
Word Analysis	13	56.0	14.5	64.6	11.9	15%	0.63	19.0	K.8	17	23.0	1.3	39
Mathematics	14	49.0	16.6	57.8	15.4	18%	0.53	16.5	K.9	10	20.0	1.2	22
Reading	12	36.4	9.6	45.6	16.1	25%	0.67	7.5	1.3	23	8.5	1.4	30
District = Perris													
Word Analysis	1	62.9	.	85.7	.	36%	.	22.0	1.2	32	30.0	2.7	85
Mathematics	1	88.6	.	94.3	.	6%	.	31.0	2.5	94	33.0	3.1	98
Reading	1	89.5	.	100.0	.	12%	.	17.0	2.1	82	19.0	2.9	95
District = Rialto													
Word Analysis	3	63.8	10.0	81.0	7.2	27%	1.57	22.0	1.2	32	28.0	2.2	74
Mathematics	3	66.7	11.5	81.0	8.7	21%	1.11	24.0	1.6	41	29.0	2.2	79
Reading	3	84.2	13.9	93.0	8.0	10%	0.62	17.0	2.1	82	18.0	2.3	88
District = Santa Ana Unified School District													
Word Analysis	8	58.6	14.4	70.0	15.8	20%	0.71	21.0	1.1	26	24.5	1.6	51
Mathematics	8	53.9	17.0	67.5	15.0	25%	0.80	17.5	1.0	13	23.0	1.5	35
Reading	8	46.7	26.5	71.7	20.1	54%	1.01	7.5	1.3	23	12.5	1.6	57
District = Stockton													
Word Analysis	11	55.8	10.0	53.2	13.4	-5%	-0.21	20.0	1.0	20	16.0	K.4	7
Mathematics	10	49.1	10.2	50.6	10.2	3%	0.13	17.5	1.0	13	18.0	1.0	16
Reading	3	47.4	22.9	45.6	19.9	-4%	-0.07	7.0	1.2	19	7.0	1.2	19
District = West Noble													
Word Analysis	5	65.1	10.4	67.4	12.2	4%	0.18	23.0	1.3	39	23.0	1.3	39
Mathematics	5	46.3	9.3	52.6	16.9	14%	0.42	15.0	K.6	7	22.0	1.4	29
Reading	5	43.2	21.2	52.6	20.4	22%	0.41	8.0	1.3	27	11.0	1.5	50

Table 23

Comparison of Pretest and Posttest Performance for Grade Two Students Served by Brain Hurricane: Results from All Districts

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Bassett													
Word Analysis	4	67.1	22.7	62.9	13.4	-6%	-0.20	22.0	1.6	18	22.5	1.7	19
Math Concepts	4	70.7	8.7	75.9	8.0	7%	0.54	21.0	1.8	19	22.0	2.0	25
Reading	4	69.9	18.2	59.6	30.0	-15%	-0.36	24.5	2.0	23	20.5	1.7	15
District = Beecher													
Word Analysis	1	54.3	.	80.0	.	47%	.	19.0	1.3	10	28.0	2.3	44
Reading	1	94.1	.	76.5	.	-19%	.	32.0	2.7	60	26.0	2.0	28
District = Chicago Public Schools													
Word Analysis	73	57.4	17.8	64.7	20.1	13%	0.38	20.0	1.4	13	23.0	1.7	20
Math Concepts	74	59.5	12.5	71.7	15.7	21%	0.86	17.0	1.2	5	21.0	1.8	19
Reading	73	59.2	21.8	70.3	20.6	19%	0.52	18.0	1.5	11	25.0	2.0	26
District = Chino Valley Unified School District													
Word Analysis	1	71.4	.	77.1	.	8%	.	25.0	1.9	27	27.0	2.2	39
Math Concepts	1	72.4	.	89.7	.	24%	.	21.0	1.8	19	26.0	2.8	63
Reading	1	64.7	.	73.5	.	14%	.	22.0	1.8	17	25.0	2.0	26
District = Corona-Narco Unified School District													
Word Analysis	2	67.1	18.2	81.4	10.1	21%	0.55	23.5	1.8	22	28.5	2.4	29
Math Concepts	2	60.3	7.3	72.4	19.5	20%	0.46	17.5	1.3	7	21.0	1.8	19
Reading	2	73.5	25.0	70.6	25.0	-4%	-0.07	25.0	2.0	26	24.0	1.9	21
District = East Chicago													
Word Analysis	17	71.1	12.4	70.8	13.6	0%	-0.03	25.0	1.9	27	27.0	2.2	39
Math Concepts	16	65.3	11.1	75.6	8.9	16%	1.01	18.0	1.3	8	23.0	2.1	31
Reading	17	79.6	13.9	79.9	17.3	0%	0.02	29.0	2.3	39	29.0	2.3	39
District = Fontana Unified School District													
Word Analysis	8	67.9	10.1	72.5	14.9	7%	0.35	24.0	1.8	24	25.0	1.9	27
Math Concepts	8	66.8	10.3	73.7	9.4	10%	0.66	19.5	1.6	13	22.0	2.0	25
Reading	8	68.0	26.0	76.1	15.9	12%	0.35	26.5	2.1	30	27.5	2.2	32
District = Fort Wayne													
Word Analysis	8	76.4	13.3	80.0	10.6	5%	0.28	28.5	2.4	48	28.0	2.3	44
Math Concepts	9	74.7	13.0	81.6	14.0	9%	0.49	23.0	2.1	31	24.0	2.3	37
Reading	9	72.2	20.0	85.0	10.2	18%	0.76	28.0	2.2	34	28.0	2.2	34
District = Frankfort													
Word Analysis	1	51.4	.	85.7	.	67%	.	18.0	1.2	9	30.0	2.8	58
Math Concepts	1	79.3	.	82.8	.	4%	.	23.0	2.1	31	24.0	2.3	37
Reading	1	61.8	.	94.1	.	52%	.	21.0	1.7	15	32.0	2.7	60
District = Gary													
Word Analysis	6	66.7	16.1	81.9	11.1	23%	1.02	23.5	1.8	22	30.0	2.8	58
Math Concepts	6	60.9	12.8	70.7	9.9	16%	0.79	18.0	1.3	8	20.5	1.8	17
Reading	6	73.0	23.0	91.2	12.2	25%	0.91	26.5	2.1	28	33.0	3.1	75

Table 23 Continues

Table 23 Continued

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Goshen													
Word Analysis	10	79.4	7.7	81.4	9.8	3%	0.22	28.0	2.3	44	28.0	2.3	44
Math Concepts	9	73.9	6.9	82.8	11.7	12%	0.87	22.0	2.0	25	24.0	2.3	37
Reading	10	77.1	18.0	82.9	16.3	8%	0.33	28.5	2.3	37	29.5	2.4	44
District = Montebello Unified School District													
Word Analysis	1	45.7	.	68.6	.	50%	.	16.0	K.9	5	24.0	1.8	24
Reading	1	58.8	.	76.5	.	30%	.	20.0	1.6	14	26.0	2.0	28
District = North Chicago													
Word Analysis	10	69.4	19.5	77.4	16.0	12%	0.43	25.5	2.0	31	29.0	2.5	51
Math Concepts	9	73.2	12.4	83.9	7.7	15%	0.99	22.0	2.0	25	25.0	2.5	50
Reading	10	67.1	19.9	78.8	16.2	18%	0.62	22.0	1.8	17	26.5	2.1	30
District = Perry Township													
Word Analysis	1	97.1	.	94.3	.	-3%	.	34.0	3.4	81	33.0	3.3	81
Math Concepts	1	55.2	.	62.1	.	13%	.	16.0	1.1	4	18.0	1.3	8
District = Rialto													
Word Analysis	6	53.8	24.5	66.7	20.7	24%	0.52	18.5	1.3	9	21.5	1.6	16
Math Concepts	6	70.1	9.7	80.5	4.7	15%	1.25	21.0	1.8	19	23.0	2.1	31
Reading	6	53.9	23.9	61.8	25.0	15%	0.30	15.0	1.4	7	18.0	1.5	11
District = Santa Ana Unified School District													
Word Analysis	11	68.8	16.2	80.3	12.5	17%	0.76	25.0	1.9	27	28.0	2.3	44
Math Concepts	11	60.8	12.7	76.5	17.6	26%	0.98	18.0	1.3	8	24.0	2.3	37
Reading	11	65.8	22.8	77.3	16.5	17%	0.56	25.0	2.0	26	28.0	2.2	26
District = Stockton													
Word Analysis	17	77.3	16.0	84.2	10.4	9%	0.50	29.0	2.5	51	30.0	2.8	58
Math Concepts	16	81.0	14.7	83.4	11.8	3%	0.17	25.5	2.7	57	24.0	2.3	37
Reading	16	75.4	21.4	84.6	15.1	12%	0.48	29.0	2.3	39	30.0	2.4	47
District = West Noble													
Word Analysis	9	66.3	14.3	67.0	18.0	1%	0.04	23.0	1.7	20	24.0	1.8	24
Math Concepts	9	65.1	8.0	68.2	9.4	5%	0.33	18.0	1.3	8	19.0	1.5	12
Reading	9	51.0	22.7	59.2	17.2	16%	0.39	13.0	1.2	4	18.0	1.5	11

Table 24

Comparison of Pretest and Posttest Performance for Grade Three Students Served by Brain Hurricane: Results from All Districts

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Azusa Unified School District													
Mathematics	1	68.8	.	71.9	.	5%	.	22.0	3.9	58	23.0	4.1	61
Reading	1	22.2	.	25.9	.	17%	.	6.0	2.0	5	7.0	2.1	8
District = Bassett													
Mathematics	2	67.2	24.3	62.5	8.8	-7%	-0.14	21.5	3.8	56	20.0	3.6	49
Reading	2	44.4	15.7	38.9	18.3	-13%	-0.18	12.0	2.9	27	10.5	2.7	22
District = Chicago Public Schools													
Mathematics	85	37.5	17.8	53.9	18.3	44%	0.90	12.0	2.4	12	17.0	3.2	32
Reading	90	35.6	16.8	50.0	20.1	40%	0.77	9.0	2.5	17	14.0	3.2	37
District = Chino Valley Unified School District													
Mathematics	5	48.1	20.1	69.4	18.3	44%	1.00	13.0	2.5	15	22.0	3.9	58
Reading	5	35.6	9.3	42.2	10.7	19%	0.60	11.0	2.8	24	12.0	2.9	27
District = Corona-Narco Unified School District													
Mathematics	7	55.8	16.2	65.6	17.1	18%	0.55	17.0	3.2	32	23.0	4.1	65
Reading	7	42.3	10.9	46.0	12.3	9%	0.30	11.0	2.8	24	14.0	3.2	37
District = East Chicago													
Mathematics	8	50.8	20.9	57.4	15.1	13%	0.34	15.5	3.0	26	18.5	3.4	40
Reading	8	42.6	21.3	48.1	21.6	13%	0.24	11.0	2.8	24	11.0	2.8	24
District = El Monte													
Mathematics	3	35.4	11.8	46.9	13.6	32%	0.72	13.0	2.5	15	17.0	3.2	32
Reading	3	23.5	2.1	20.2	6.3	-14%	-0.56	6.0	2.0	5	5.0	1.7	3
District = Elkhart													
Mathematics	7	32.1	12.5	45.1	14.1	40%	0.91	9.0	2.1	5	14.0	2.7	20
Reading	7	27.5	8.0	43.4	16.5	58%	1.14	7.0	2.1	8	13.0	3.0	32
District = Fontana Unified School District													
Mathematics	2	65.6	30.9	76.6	11.0	17%	0.27	21.0	3.7	54	24.5	4.4	74
Reading	2	68.5	13.1	64.8	23.6	-5%	-0.11	18.5	3.9	59	17.5	3.8	56
District = Goshen													
Mathematics	12	61.2	18.4	65.9	19.1	8%	0.24	18.0	3.3	36	20.0	3.6	49
Reading	12	46.6	20.1	56.5	17.2	21%	0.51	14.5	3.3	40	15.0	3.4	42
District = Hammond													
Mathematics	11	48.6	11.8	58.2	14.0	20%	0.72	16.0	3.0	28	20.0	3.6	49
Reading	11	41.4	13.2	52.5	13.5	27%	0.80	11.0	2.8	24	15.0	3.4	42
District = Hampton City Schools													
Reading	2	24.1	2.6	74.1	10.5	208%	3.69	6.5	2.1	6	20.0	4.1	64
District = Indianapolis													
Mathematics	1	31.3	.	34.4	.	10%	.	10.0	2.2	7	11.0	2.3	10
Reading	1	22.2	.	33.3	.	50%	.	6.0	2.0	5	9.0	2.5	17

Table 24 Continues

Table 24 Continued

ITBS Core Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Lodi Unified School District													
Mathematics	7	58.0	12.1	50.9	13.1	-12%	-0.53	19.0	3.5	42	17.0	3.2	32
Reading	7	41.8	15.8	66.1	14.1	58%	1.51	11.0	2.8	24	18.0	3.9	58
District = Montebello Unified School District													
Mathematics	14	53.3	14.9	58.0	25.5	9%	0.22	17.5	3.3	33	21.0	3.7	54
Reading	14	33.6	15.3	47.4	18.7	41%	0.78	8.0	2.3	12	13.0	3.0	32
District = North Chicago													
Mathematics	10	39.1	13.1	46.6	24.5	19%	0.37	13.0	2.5	15	15.0	2.9	24
Reading	10	36.3	17.5	47.4	19.3	31%	0.58	9.0	2.5	17	13.0	3.0	32
District = Perris													
Mathematics	1	43.8	.	50.0	.	14%	.	14.0	2.7	20	16.0	3.0	28
Reading	1	51.9	.	40.7	.	-21%	.	14.0	3.2	37	11.0	2.8	24
District = Pike Township													
Mathematics	2	46.9	22.1	59.4	35.4	27%	0.24	15.0	2.9	24	19.0	3.5	42
Reading	2	38.9	7.9	25.9	15.7	-33%	-0.59	10.5	2.6	22	7.0	2.1	8
District = Rialto													
Mathematics	3	51.0	9.5	57.3	3.6	12%	0.69	17.0	3.2	32	19.0	3.5	42
Reading	3	23.5	7.7	32.1	9.3	37%	0.81	7.0	2.1	8	9.0	2.5	17
District = Sacramento City Unified School District													
Mathematics	2	59.4	17.7	62.5	13.3	5%	0.11	19.0	3.5	42	20.0	3.6	49
Reading	2	51.9	5.2	55.6	5.2	7%	0.40	14.0	3.2	37	15.0	3.4	42
District = Santa Ana Unified School District													
Mathematics	2	60.9	15.5	56.3	22.1	-8%	-0.14	19.5	3.6	46	18.0	3.3	36
Reading	2	33.3	0.0	35.2	7.9	6%	0.19	9.0	2.5	17	9.5	2.6	20
District = Stockton													
Mathematics	7	36.6	12.2	48.2	19.3	32%	0.67	10.0	2.2	7	13.0	2.5	15
Reading	6	30.2	12.7	44.4	19.2	47%	0.81	7.0	2.1	8	10.0	2.6	21
District = West Noble													
Mathematics	10	45.3	21.7	49.4	23.0	9%	0.17	14.0	2.7	20	14.0	2.7	20
Reading	10	30.4	14.4	41.9	22.2	38%	0.59	8.0	2.3	12	12.0	2.9	27

Table 25

Comparison of Pretest and Posttest Performance for Grade Four Students Served by Brain Hurricane: Results from All Districts

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Azusa Unified School District													
Mathematics	2	62.9	11.4	75.8	11.4	21%	0.64	19.5	3.6	20	23.5	4.2	36
Reading	2	46.3	18.3	46.3	34.0	0%	0.00	12.5	3.0	13	12.5	3.0	13
District = Bassett													
Mathematics	1	87.1	.	83.9	.	-4%		27.0	5.0	58	26.0	4.7	50
Reading	1	100.0	.	92.6	.	-7%		27.0	7.9	96	25.0	6.0	75
District = Chicago Public Schools													
Mathematics	64	51.5	20.7	65.9	19.3	28%	0.72	17.0	3.2	11	21.0	3.7	24
Reading	63	48.3	22.1	59.3	21.9	23%	0.50	12.0	2.9	12	17.0	3.7	28
District = Corona-Narco Unified School District													
Mathematics	2	66.1	2.3	72.6	11.4	10%	0.44	20.5	3.7	23	22.5	4.0	31
Reading	2	55.6	36.7	66.7	21.0	20%	0.21	15.0	3.4	22	18.0	3.9	32
District = East Chicago													
Mathematics	7	61.3	24.5	62.2	21.1	2%	0.04	22.0	3.9	27	22.0	3.9	27
Reading	7	63.0	24.8	61.9	30.1	-2%	-0.04	19.0	4.0	35	17.0	3.7	28
District = El Monte													
Mathematics	3	41.9	16.1	53.8	17.8	28%	0.56	13.0	2.5	5	14.0	2.7	6
Reading	3	50.6	16.7	43.2	26.0	-15%	-0.27	14.0	3.2	18	11.0	2.8	9
District = Fort Wayne													
Mathematics	1	64.5	.	64.5	.	0%	.	20.0	3.6	21	20.0	3.6	21
Reading	1	63.0	.	48.1	.	-24%	.	17.0	3.7	28	13.0	3.0	14
District = Frankfort													
Mathematics	1	48.4	.	54.8	.	13%	.	15.0	2.9	7	17.0	3.2	11
Reading	1	29.6	.	48.1	.	63%	.	8.0	2.3	3	13.0	3.0	14
District = Hammond													
Mathematics	4	56.5	22.7	78.2	14.5	39%	0.99	14.5	2.8	7	25.0	4.4	44
Reading	4	49.1	26.4	66.7	22.4	36%	0.62	15.5	3.5	24	19.0	4.0	35
District = Hampton City Schools													
Reading	5	30.4	8.4	59.3	16.6	95%	1.98	8.0	2.3	3	16.0	3.5	26
District = Indianapolis													
Mathematics	1	77.4	.	90.3	.	17%		24.0	4.3	38	28.0	5.4	68
Reading	1	37.0	.	40.7	.	10%		10.0	2.6	8	11.0	2.8	9
District = Lodi School District													
Mathematics	4	62.9	25.6	62.9	23.2	0%	0.00	20.5	3.7	23	21.0	3.7	24
Reading	4	43.5	12.6	42.6	7.1	-2%	-0.08	11.0	2.8	9	12.0	2.9	14

Table 25 Continues

Table 25 Continued

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Montebello Unified School District													
Mathematics	9	64.2	15.8	60.9	19.0	-5%	-0.18	21.0	3.7	24	20.0	3.7	21
Reading	9	51.9	16.0	49.0	16.5	-6%	-0.17	16.0	3.5	26	15.0	3.4	22
District = North Chicago													
Mathematics	13	61.5	17.5	70.0	10.6	14%	0.57	18.0	3.3	14	22.0	3.9	27
Reading	13	45.0	16.8	58.1	14.4	29%	0.81	12.0	2.9	12	15.0	3.4	22
District = Perry Township													
Mathematics	1	38.7	.	38.7	.	0%	.	12.0	2.4	3	12.0	2.4	3
Reading	1	25.9	.	29.6	.	14%	.	7.0	2.1	2	8.0	2.3	3
District = Pike Township													
Mathematics	2	38.8	9.0	67.7	9.1	75%	1.80	13.0	2.5	4	21.0	3.7	24
Reading	2	55.6	5.2	48.1	21.0	-13%	-0.27	15.0	3.4	22	13.0	3.0	14
District = Rialto													
Mathematics	2	46.8	11.4	61.3	9.1	31%	0.79	14.5	2.8	7	19.0	3.5	18
Reading	2	33.3	0.0	33.3	10.5	0%	0.00	9.0	2.5	6	9.0	2.5	6
District = Sacramento City Unified School District													
Mathematics	4	74.2	12.4	83.2	7.1	12%	0.78	22.0	3.9	27	25.5	4.6	48
Reading	4	56.5	1.9	58.3	8.2	3%	0.27	15.0	3.4	22	16.0	3.5	26
District = Santa Ana Unified School District													
Mathematics	4	66.1	7.7	71.8	6.1	9%	0.71	20.5	3.7	23	21.5	3.8	26
Reading	4	58.3	5.6	65.7	5.6	13%	1.16	16.0	3.5	26	18.0	3.9	32
District = Stockton													
Mathematics	18	63.3	21.2	64.3	22.2	2%	0.05	21.0	3.7	24	22.5	4.0	31
Reading	18	43.2	17.9	54.9	15.7	27%	0.68	12.0	2.9	12	14.5	3.3	21
District = West Noble													
Mathematics	1	71.0	.	87.1	.	23%	.	22.0	3.9	27	27.0	5.0	58
Reading	1	40.7	.	70.4	.	73%	.	11.0	2.8	9	19.0	4.0	35

Table 26

Comparison of Pretest and Posttest Performance for Grade Five Students Served by Brain Hurricane: Results from All Districts

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Bassett													
Mathematics	4	52.0	14.4	55.4	18.4	6%	0.18	17.5	4.7	27	22.0	5.6	48
Reading	4	49.2	22.7	48.4	20.2	-2%	-0.03	14.0	4.1	19	17.0	4.8	31
District = Chicago Public Schools													
Mathematics	50	42.4	16.7	48.5	16.4	14%	0.36	15.5	4.3	21	19.0	4.9	33
Reading	50	41.3	16.4	47.9	18.9	16%	0.37	13.0	3.9	15	15.5	4.4	24
District = Corona-Narco Unified School District													
Mathematics	2	44.6	13.4	52.7	9.6	18%	0.39	16.5	4.5	25	19.5	5.0	36
Reading	2	54.7	24.3	48.4	24.3	-11%	-0.15	17.5	4.9	33	15.5	4.4	24
District = Detroit													
Mathematics	2	60.8	13.4	60.8	5.7	0%	0.00	22.5	5.7	50	22.5	5.7	50
Reading	2	34.4	17.7	37.5	8.8	9%	0.13	11.0	3.4	9	12.0	3.7	13
District = East Chicago													
Mathematics	5	36.2	12.0	43.2	14.8	19%	0.47	11.0	3.6	8	15.0	4.2	19
Reading	5	46.9	14.8	41.3	18.9	-12%	-0.30	14.0	4.1	19	10.0	3.2	6
District = El Monte													
Mathematics	4	43.9	18.8	44.6	25.1	2%	0.03	19.0	4.9	33	15.0	4.2	19
Reading	4	36.7	7.4	35.2	15.4	-4%	-0.11	11.0	3.4	9	11.5	3.6	11
District = Fontana Unified School District													
Mathematics	5	55.1	17.6	67.6	11.6	23%	0.75	21.0	5.4	43	25.0	6.3	59
Reading	5	48.8	22.6	72.5	15.8	49%	1.10	16.0	4.5	26	23.0	6.4	61
District = Fort Wayne													
Mathematics	1	18.9	.	37.8	.	100%	.	7.0	2.9	2	14.0	4.1	15
Reading	1	31.3	.	21.9	.	-30%	.	10.0	3.2	6	7.0	2.6	2
District = Gary													
Mathematics	2	25.1	14.1	35.1	3.8	40%	0.54	11.5	3.7	8	13.0	3.9	12
Reading	2	37.5	22.1	54.7	11.0	46%	0.56	12.0	3.7	13	17.5	4.9	33
District = Hampton City Schools													
	1	21.9	.	84.4	.	286%	.	7.0	2.6	2	27.0	8.0	82
District = Lodi School District													
Mathematics	4	27.7	7.1	51.4	17.7	85%	1.53	10.0	3.4	5	23.0	5.7	51
Reading	4	32.0	13.1	39.9	17.2	25%	0.45	9.5	3.0	6	14.5	4.2	21

Table 26 Continues

Table 26 Continued

ITBS Survey Subtest	pairs	<i>M</i> % Corr pre	<i>SD</i> % Corr pre	<i>M</i> % Corr post	<i>SD</i> % Corr post	% Corr increase	<i>E.S.</i> (<i>d</i>)	<i>Mdn</i> Raw Tot pre	<i>Mdn</i> G.E. pre	<i>Mdn</i> NPR pre	<i>Mdn</i> Raw Tot post	<i>Mdn</i> G.E. post	<i>Mdn</i> NPR post
District = North Chicago													
Mathematics	19	42.8	10.6	53.9	15.0	26%	0.84	16.0	4.4	22	22.0	5.6	48
Reading	19	50.2	11.6	50.5	16.5	1%	0.02	17.0	4.8	31	16.0	4.5	26
District = Rialto													
Mathematics	1	45.9	.	56.8	.	24%	.	17.0	4.6	26	21.0	5.4	43
Reading	1	43.8	.	28.1	.	-36%	.	14.0	4.1	19	9.0	3.0	5
District = Santa Ana Unified School District													
Mathematics	4	54.7	16.9	53.4	19.3	-2%	-0.06	20.0	5.1	38	21.5	5.5	46
Reading	4	52.3	15.0	57.0	14.3	9%	0.28	15.5	4.4	24	18.5	5.2	38
District = Stockton													
Mathematics	7	54.8	20.1	42.5	20.1	-23%	-0.57	21.0	5.4	43	15.0	4.2	19
Reading	7	54.0	23.1	53.6	23.9	-1%	-0.02	18.0	5.0	35	19.0	5.3	40

Table 27

Comparison of Pretest and Posttest Performance for Grade Six Students Served by Brain Hurricane: Results from All Districts

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Bassett													
Mathematics	1	59.5	.	62.2	.	5%	.	22.0	5.6	30	23.0	5.7	33
Reading	1	53.1	.	62.5	.	18%	.	17.0	4.8	19	20.0	5.4	30
District = Beecher													
Mathematics	1	91.9	.	24.3	.	-74%	.	34.0	9.7	84	9.0	3.2	1
Reading	1	96.9	.	12.5	.	-87%	.	31.0	11.3	93	4.0	1.8	1
District = Chicago Public Schools													
Mathematics	53	45.0	17.8	54.2	21.8	21%	0.46	15.0	4.2	9	19.0	4.9	19
Reading	52	46.1	15.8	52.3	20.3	13%	0.34	13.5	4.0	9	15.5	4.4	14
District = Corona-Narco Unified School District													
Mathematics	4	64.9	17.7	64.2	16.0	-1%	-0.03	24.0	6.0	35	22.5	5.7	31
Reading	4	46.1	9.0	53.1	22.7	15%	0.35	15.5	4.4	14	18.5	5.2	24
District = Downey District													
Mathematics	3	51.4	17.7	58.6	12.2	14%	0.38	20.0	5.1	23	22.0	5.6	30
Reading	3	42.7	3.6	49.0	10.0	15%	0.66	13.0	3.9	8	17.0	4.8	19
District = East Chicago													
Mathematics	3	64.9	4.7	68.5	12.2	6%	0.31	23.0	5.7	33	25.0	6.3	39
Reading	3	55.2	14.1	58.3	13.0	6%	0.18	18.0	5.0	22	20.0	5.4	30
District = El Monte													
Mathematics	2	52.7	32.5	58.1	28.7	10%	0.10	19.5	5.0	22	21.5	5.5	29
Reading	2	45.3	2.2	54.7	15.5	21%	0.48	14.5	4.2	11	17.5	4.9	21
District = Fontana Unified School District													
Mathematics	6	65.3	15.6	71.2	17.2	9%	0.33	24.0	6.0	35	28.0	7.0	54
Reading	6	55.2	17.8	67.7	13.5	23%	0.73	16.0	4.5	15	20.5	5.6	32
District = Gary													
Mathematics	1	45.9	.	64.9	.	41%	.	17.0	4.6	14	24.0	6.0	35
Reading	1	50.0	.	46.9	.	-6%	.	16.0	4.5	15	15.0	4.3	12
District = Lodi School District													
Mathematics	1	35.1	.	59.5	.	69%	.	13.0	3.9	5	22.0	5.6	30
Reading	1	71.9	.	84.4	.	17%	.	23.0	6.4	44	27.0	8.0	66
District = Perris													
Mathematics	4	55.4	5.2	70.3	9.6	27%	1.67	21.0	5.4	26	25.0	6.3	39
Reading	4	50.8	3.0	72.7	9.7	43%	2.65	16.5	4.7	17	24.0	6.8	49

Table 27 Continues

Table 27 Continued

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Rialto													
Mathematics	4	54.1	16.7	52.7	26.3	-3%	-0.05	20.5	5.3	25	21.5	5.5	29
Reading	4	60.9	15.0	53.9	22.7	-12%	-0.32	20.0	5.4	30	19.0	5.3	27
District = San Gabriel Unified School District													
Mathematics	5	49.2	13.4	52.4	27.1	7%	0.14	19.0	4.9	19	24.0	6.0	35
Reading	5	38.1	15.5	37.5	15.3	-2%	-0.04	12.0	3.7	6	10.0	3.2	3
District = Santa Ana Unified School District													
Mathematics	2	70.3	3.8	75.7	11.5	8%	0.36	26.0	6.5	45	28.0	7.0	54
Reading	2	57.8	33.1	65.6	30.9	14%	0.14	18.5	5.2	22	21.0	5.8	34
District = Stockton													
Mathematics	5	37.3	16.9	29.2	10.4	-22%	-0.52	18.0	4.7	16	10.0	3.4	2
Reading	5	40.0	10.2	42.5	10.3	6%	0.22	12.0	3.7	6	13.0	3.9	8
District = Vista School District													
Mathematics	1	16.2	.	29.7	.	83%	.	6.0	2.7	1	11.0	3.6	3
Reading	1	21.9	.	28.1	.	29%	.	7.0	2.6	1	9.0	3.0	2
District = Waukegan													
Mathematics	27	52.6	20.3	52.6	22.9	0%	0.00	23.0	5.7	33	18.0	4.7	16
Reading	27	50.0	18.0	56.1	21.4	12%	0.31	17.0	4.8	19	19.0	5.3	27

Table 28

Comparison of Pretest and Posttest Performance for Grade Seven Students Served by Brain Hurricane: Results from All Districts

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Chicago Public Schools													
Mathematics	41	47.6	16.7	50.1	19.8	5%	0.14	20.0	5.3	16	20.0	5.3	16
Reading	42	40.6	15.8	41.1	18.0	1%	0.03	13.5	4.5	11	14.5	4.7	13
District = Chino Valley Unified School District													
Mathematics	5	57.0	19.8	58.0	16.3	2%	0.05	26.0	6.7	33	22.0	5.7	21
Reading	5	42.9	6.4	47.1	12.8	10%	0.37	14.0	4.6	12	17.0	5.3	20
District = Detroit													
Mathematics	1	85.0	.	85.0	.	0%	.	34.0	9.6	71	34.0	9.6	71
Reading	1	44.1	.	67.6	.	53%	.	15.0	4.8	14	23.0	7.0	41
District = Kerman Unified School District													
Mathematics	5	52.0	24.0	59.0	29.0	13%	0.24	21.0	5.5	18	28.0	7.2	43
Reading	5	33.5	4.5	40.6	17.4	21%	0.50	12.0	4.1	7	16.0	5.1	17
District = Rialto													
Mathematics	5	45.0	26.3	63.5	20.7	41%	0.71	16.0	4.5	7	23.0	6.0	24
Reading	5	50.0	10.2	46.5	14.5	-7%	-0.25	19.0	6.0	27	18.0	5.8	23
District = San Gabriel Unified School District													
Mathematics	3	85.0	4.3	88.3	1.4	4%	0.82	35.0	10+	75	35.0	10+	75
Reading	3	57.8	13.6	56.9	20.7	-2%	-0.04	17.0	5.3	20	20.0	6.2	30
District = Santa Ana Unified School District													
Mathematics	2	42.5	0.0	38.8	12.4	-9%	-0.24	17.0	4.7	9	15.5	4.4	7
Reading	2	23.5	0.0	26.5	0.0	13%		8.0	3.1	2	9.0	3.4	3
District = Stockton													
Mathematics	5	54.5	19.3	55.5	27.0	2%	0.04	24.0	6.3	28	29.0	7.6	48
Reading	5	43.5	7.6	41.2	13.2	-5%	-0.20	15.0	4.8	14	13.0	4.3	9
District = Waukegan													
Mathematics	8	56.3	16.9	57.8	15.7	3%	0.09	22.5	5.9	23	23.5	6.2	27
Reading	8	42.3	17.6	46.0	18.7	9%	0.19	14.0	4.6	12	13.0	4.3	9

Table 29

Comparison of Pretest and Posttest Performance for Grade Eight Students Served by Brain Hurricane: Results from All Districts

ITBS Survey Subtest	pairs	M % Corr pre	SD % Corr pre	M % Corr post	SD % Corr post	% Corr increase	E.S. (d)	Mdn Raw Tot pre	Mdn G.E. pre	Mdn NPR pre	Mdn Raw Tot post	Mdn G.E. post	Mdn NPR post
District = Beecher													
Mathematics	1	40.0	.	30.0	.	-25%	.	16.0	4.5	4	12.0	3.9	1
Reading	1	20.6	.	35.3	.	71%	.	7.0	2.9	1	12.0	4.1	4
District = Chicago Public Schools													
Mathematics	39	58.1	17.4	63.5	21.1	9%	0.28	23.0	6.0	16	26.0	6.7	24
Reading	39	52.7	18.1	57.3	16.3	9%	0.26	17.0	5.3	13	19.0	6.0	19
District = Chino Valley Unified School District													
Mathematics	3	39.2	24.0	47.5	28.4	21%	0.25	14.0	4.2	2	14.0	4.2	2
Reading	3	38.2	10.2	36.3	7.4	-5%	-0.18	11.0	3.9	3	12.0	4.1	4
District = Downey District													
Mathematics	1	87.5	.	92.5	.	6%	.	35.0	10+	62	37.0	11.5	72
Reading	1	67.6	.	73.5	.	9%	.	23.0	7.0	30	25.0	7.6	38
District = El Monte													
Mathematics	1	72.5	.	40.0	.	-45%	.	29.0	7.6	36	16.0	4.5	4
Reading	1	70.6	.	38.2	.	-46%	.	24.0	7.4	34	13.0	4.3	6
District = Kerman Unified School District													
Mathematics	6	64.2	22.8	77.1	9.7	20%	0.68	29.0	7.6	36	31.0	8.3	45
Reading	7	47.1	25.3	59.2	18.5	26%	0.51	12.0	4.1	4	20.0	6.2	22
District = Rialto													
Mathematics	3	54.2	20.2	50.8	28.4	-6%	-0.11	23.0	6.0	16	17.0	4.7	5
Reading	3	58.8	5.9	49.0	23.8	-17%	-0.45	20.0	6.2	22	18.0	5.8	16
District = San Gabriel Unified School District													
Mathematics	1	72.5	.	90.0	.	24%	.	29.0	7.6	36	36.0	11.0	67
Reading	1	67.6	.	79.4	.	17%	.	23.0	7.0	30	27.0	8.6	46
District = Stockton													
Mathematics	5	54.0	19.7	65.5	20.6	21%	0.51	18.0	4.9	6	30.0	8.0	40
Reading	5	52.9	21.7	61.2	13.9	16%	0.41	17.0	5.3	13	19.0	6.0	19
District = Vista School District													
Mathematics	2	53.8	5.3	76.3	5.3	42%	2.39	21.5	5.6	13	30.5	8.2	43
Reading	2	55.9	4.2	79.4	4.2	42%	3.19	19.0	6.0	19	27.0	8.6	46
District = Waukegan													
Mathematics	4	61.9	16.1	60.0	17.0	-3%	-0.10	23.0	6.0	16	21.5	5.6	13
Reading	4	51.5	17.6	51.5	19.0	0%	0.00	17.0	5.3	13	16.0	5.1	11