Final CSP Performance Report

Table of Contents (they ask for this)

Part II-Executive Summary (separate document)

Part III-Project Status

This report summarizes the impacts of the SMART/Boost-Up program on children in grades k through 3. SMART/Boost-Up is a brain stimulation program, developed by New Visions School, integrated into the kindergarten curriculum during one school year for the purpose of producing high levels of readiness for academic mastery. SMART uses physical neuro-stimulation for 30 minutes daily and academic stimulation that is integrated into the regular curriculum. The goal of the SMART project is to prepare 80% or more of regular kindergarten students at reading readiness levels above the 25th percentile (at or above the normal range). SMART gives the master teacher the opportunity to teach more by providing a booster effect in attending ability (reducing inattention) that allows pupils to give full attention to the teacher and focus on academic tasks that results in better acquisition and retention of content. It does not require schools to purchase a new reading program or curriculum. The program is implemented after a four day training of teachers and continues with a mentoring program of up to three years for existing teachers.

1. Project Objective: To better understand the impact of SMART/Boost-Up on growth in children's word recognition and vocabulary skills.

1a. Performance Measure: The first full replication and scientific evaluation of the effect of the SMART/Boost-Up intervention.

Measure Type: Project (Target) Raw Number:

(Target) Ratio:

(Target) %:

(Actual Performance Data) Raw Number:

(Actual Performance Data) Ratio:

(Actual Performance Data) %:

1b. Performance Measure: Gains of one or more years in reading among 80% of low-performing students who receive 80 or more hours of SMART/Boost-Up.

Measure Type: Project

(Target) Raw Number:

(Target) Ratio: (Target)%: 80%

(Actual Performance Data) Raw Number: see below

(Actual Performance Data) Ratio: see below

(Actual Performance Data) %: see below

1.c. MRT6 80% of K completing 80 hours of SMART/Boost-Up meet readiness standards as measured by the MRT6

(Target) Raw Number: 1072 (Target) Ratio: 1072/1340

(Target)%: 80%

(Actual Performance Data) Raw Number: 1205 (Actual Performance Data) Ratio: 1205/1340

(Actual Performance Data) %: 89.9%

Exp1anation of Progress (Include Qualitative Data and Data Collection Information)

1a. Scientific Evaluation of SMART/Boost-Up

The following table shows samples of kindergarteners in Title 1 schools scoring at high levels and at comparable high proportions of reading readiness on the Metropolitan Readiness Test (MRT6) after a single year of SMART stimulation. These students were part of an independent scientific randomized control group evaluation of the SMART program in 6 control and 6 experimental SMART Title 1 sites in Tallahassee, Florida conducted by EPPC (see report). The measures included the Woodcock-Johnson-III subtests for phonemic awareness that produced effect sizes from d= 1.13-1.58 compared to the control group. The DIBELS benchmark totals produced an effect size of d=.8 for high fidelity explicit SMART Phonemic Awareness instruction compared to SMART schools using inconsistent procedures. The following tables show the proportions of students meeting the 80% goal for mature performance in reading readiness as measured by these tests of phonemic awareness. Although this ambitious study did not meet the total n targets in order to establish definitive evidence of effectiveness, the data suggest positive indicative signs of the results being worth the effort of the program. Teachers surveyed indicated favorable responses to the program. The SMART program results indicate that it is worthy of a longitudinal study in which students, especially males, from economically disadvantaged and deprived backgrounds receive two or more years of compensatory stimulation.

Table
Reading Readiness for First Grade Maturity - Proportions above 25%ile
Beginning Reading Skills Area on the Metropolitan Readiness Test (MRT6)
6 Control and 6 experimental Schools In Tallahassee, FL May 2005

SMART	SMART	SMART	Control	Control	Control
Regular	Total N	Regular	Regular	Total N	Regular
MF N>	Regular	MF %	MF N>	Regular	MF %
Benchmark	MF	>Benchmark	Benchmark	MF	>Benchmark
Target	Target	Target	Target	Target	Target
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%
80	100	80	80	100	80

Actual	Actual	Actual	Actual	Actual	Actual
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%
74	75	99	22	22	100

Note: 93.3% of SMART Kindergarteners scored in the top quartile; all but one student scored above the national mean.

Table
DIBELS Kindergarten Year-End Benchmark Attainment Proportions-Control Group Mal
6 Control Schools In Tallahassee, FL May 2005

Regular	Total N	Regular	EconDisadv	EconDisadv	EconDisadv	Minority
Male N>	Regular	Males %	RegMale N	Regular	RegMale %	RegMale N
Benchmark	Males	>Benchmark	>Benchmark	Male N	>Benchmark	>Benchma
Target Raw No. control	Target	Target	Target	Target	Target	Target
	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No.
	40	control	control	30	control	control
Actual	Actual	Actual	Actual	Actual	Actual	Actual
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No.
24	31	77.4	16	24	66.7	10

Table
DIBELS Kindergarten Year-End Benchmark Attainment Proportions-Control Group Fen
6 Control Schools In Tallahassee, FL May 2005

Regular	Total N	Regular	EconDisadv	EconDisadv	EconDisadv	Minority
Female N>	Regular	Females	RegFemale	Regular	RegFemale	RegFema
Benchmark	Females	%>Benchmk	N>Benchmk	Female N	%>Benchmk	N>Bench
Target	Target	Target	Target	Target	Target	Targel
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No
control	50	control	control	40	control	control
Actual	Actual	Actual	Actual	Actual	Actual	Actua l
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No
15	19	78.9	12	13	92.3	11

Table

DIBELS Kindergarten Year-End Benchmark Attainment Proportions-SMART Group Mal
6 SMART Experimental Schools In Tallahassee, FL May 2005

Regular	Total N	Regular	EconDisadv	EconDisadv	EconDisadv	Minority
Male N>	Regular	Males %	RegMale N	Regular	RegMale %	RegMale
Benchmark	Males	>Benchmark	>Benchmark	Male N	>Benchmark	>Benchm
Target	Target	Target	Target	Target	Target	Target
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No
80	100	80	64	80	80	48

Actual	Actual	Actual	Actual	Actual	Actual	Actual
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No
49	89	55.1	49	85	57.6	31

Table

DIBELS Kindergarten Year-End Benchmark Attainment Proportions-SMART Group Fen
6 SMART Experimental Schools In Tallahassee, FL May 2005

Regular	Total N	Regular	EconDisadv	EconDisadv	EconDisadv	Minority
Female N>	Regular	Females	RegFemale	Regular	RegFemale	RegFema
Benchmark	Females	%>Benchmk	N>Benchmk	Female N	%>Benchmk	N>Bench
Target	Target /By=Ratio 100	Target	Target	Target	Target	Targel
Raw No.		%	Raw No.	/By=Ratio	%	Raw No
80		80	64	80	80	48
Actual	Actual	Actual	Actual	Actual	Actual	Actua l
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No
56	69	81.2	38	56	67.9	45

Table
High-Fidelity SMART Phonemic Awareness Instruction
DIBELS Kindergarten Year-End Benchmark Attainment Proportions
3 SMART Experimental Schools In Tallahassee, FL May 2005

High Fidelity Reg Male	High Fidelity	High Fidelity	High Fidelity RegFemale	High Fidelity	High Fidelity
N>	Regular	Reg Male %	N	Regular	RegFemale%
Benchmark	Male N	>Benchmark	>Benchmark	Female N	>Benchmark
Target	Target	Target	Target	Target	Target
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%
40	50	80	40	50	80
Actual	Actual	Actual	Actual	Actual	Actual
Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%
42	49	85.5	29	32	90.6

With respect to the scientific study, we worked with the Education, Public Policy & Consulting Global Management, Inc. (EPPC), an evaluation firm composed of research institute directors from Florida State University, to measure the reading readiness and phonemic awareness impacts of the SMART/Boost-Up program in the major metropolitan school district of Leon County (Tallahassee), Florida.

Six of the twelve Title 1 elementary schools in the district were randomly selected for the 4-day staff development to provide the SMART/Boost-Up program to kindergarteners while the other six schools served as controls. The median SMART school proportion of students qualifying for Free or Reduced-Price Lunch was 85% (range 57%-97%) % of 520 pupils (277 males, 243 females). The median F/RLunch for controls was 79% of 473 students (257 males, 215 females).

For pre-testing, a sample of 79 SMART and 82 control kindergarteners were given five cognitive and five achievement measures from the W-J-III to test for equivalence of groups using a t-test for independent samples. The groups were not significantly different on eight subtests and were different in opposite directions for two subtests, indicating equivalence of the experimental and control groups at the beginning of the year. In addition, the informal School Readiness Uniform Screening Scale (SRUSS) administered by teachers during the first 45 days of school showed equivalent readiness (75%) for the pupils in both experimental and control schools.

Mentors from the A Chance to Grow/New Visions Charter School in Minneapolis coached teachers in program implementation. Three of the six schools, and 9 of the 17 classrooms were rated by 2 mentors as showing 50% or more fidelity. Raters from EPPC concluded that the average randomly-observed and rated SMART/Boost-Up fidelity was 25%. Key components of the program were either absent or marginal because the 6 physical education teachers did not participate or integrate Boost-Up activities into the physical education program, and 3 of the 6 schools had marginal class physical activity areas.

May post-test measures included selected subtests from the *Woodcock-Johnson Cognitive and Achievement Batteries-Edition III* (W-J-III) for reading and phonemic awareness, the *Metropolitan Readiness Test-6*th *Edition* (MRT6) for reading readiness and *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS) for phonemic awareness. Data was analyzed for differences in means and variances using ANOVA at the p=.05 level, and effect size (d) for variables found to be statistically significant. Other measures included teacher and parent surveys and a fidelity observation instrument.

The assessment plan for this kindergarten project was overly-ambitious and the large-sample goal required adjustment to focus more on small-sample data sets following review of the May data collection that revealed incomplete data for many pupils.

The W-J-III post-test consisted of a small classroom sample data set (n=24) that revealed statistically-significant ANOVA differences favoring SMART/Boost-Up in phonemic awareness skills and associated Cognitive Clusters. Experimental and control differences in variance on the W-J-III subtests and clusters were statistically significant for 4 of 10

comparisons. Effect sizes (d) for the skills of Cognitive Sound Blending (d=1.39) and Incomplete Words[Closure] (d=1.58) that also contributed to statistically significant differences in the two Cognitive Clusters of Auditory Processing (d=1.13) and Phonemic Awareness (d=1.61). These effect sizes correspond to percentile equivalents of 91, 94, 87 and 94 respectively for these SMART/Boost-Up means compared to the 50th percentile of controls. Significant ANOVA differences were found in experimental-control comparisons of non-white racial minorities and students qualifying for Free/Reduced Lunch; females scored significantly higher than males in these four measures.

<u>1.b.</u> Gains of one or more years in reading among 80% of low-performing students who receive 80 or more hours of SMART/Boost-Up.

Because the progress of kindergartners is examined in performance measure 1a. and 1c., performance measure focuses on children in grades 1-3. Standardized performance measures address years of reading gains taking place with students in grades 1 - 3. The data analysis considers students attending Title 1 schools to be low-performing given that in Title 1 schools 40% or more of the pupils qualified for free and/or reduced-price meals indicating their status as economically disadvantaged. All but four of the 28 schools in these data sets were Title 1 schools in grades 1-3. Analysis of dis-aggregated data was conducted for the following categories following exclusion of students receiving individualized programming (special education, repeaters, redshirt kindergarteners age 6 on September 1 entry, English Language Learners, and Hispanics in the Knox County, TN data in order to exclude ELL students):

- 1. All regular males
- 2. All regular females
- 3. Regular male economically disadvantaged (Free and/or Reduced-price meals)
- 4. Regular female economically disadvantaged (Free and/or Reduced-price meals)
- 5. Regular minority males (African Americans and Native Americans included; Hispanics in Knox County excluded)
- 6. Regular minority females (same as males above)

Note: This dis-aggregation is not possible with the Tennessee TCAP for grades 2 and 3 just male/female.

Reading data was gathered in September and May by classroom teachers in SD and WI who administered the Slosson Oral Reading Test-Revision 3 (SORT-R3) in grades 1- 2. . The number of words correctly identified on the SORT-R3 wordlist were totaled and converted to standard scores (mean = 100, standard deviation=15) that were then entered into a spreadsheet for calculation of class medians and numbers of students scoring above the first quartile (25th percentile) as normal range and above. The median of the class medians was calculated for word identification and the equivalent percentile rank was determined, along with percentages of pupils reading above the first quartile. Two types of composite reporting were used: (1) a composite in which no students of any type were excluded, and (2) a composite of regular males and females that included all pupils of economic disadvantage and racial minorities (except Hispanic and other ELL). The goal

of 80% of low-performing students receiving the full 80 hours of Boost-Up to advance by at least one year in reading is documented in Table 2.

In TN, reading data was gathered from the Reading/Language Arts section of the statewide Tennessee Comprehensive Achievement Program (TCAP). Scoring at proficient + and advanced levels indicates reading gains. The district uses the standard statewide reporting page profiles with percentages only (no N information is given) for each school. Generally, the TCAP is first given in grade 3 unless a school is a k-2 (primary) schools, in which case the TCAP in administered in 2nd grade. Sunnyview Primary is the only Title I primary school in the sample, hence those results are included in this data. The results are shown in Table 3. Table 4 shows the proportions of Knox County schools in which 80% or more of students are reading at proficient or advanced levels, based on the TCAP administered at the end of 3rd grade.

Results: Table 2 documents that the May medians for reading in South Dakota/Wisconsin SMART classes are at the 90th and 92nd percentiles, more than one standard deviation higher than control classes. Furthermore, 174 of 177 (98.3%) pupils in grade 1 were above the first quartile, as were 41 of 41 (100%) of SMART second graders. More than 80% of students in these Title 1 students made at least one year of progress. Comparison classes, as expected and predicted by national norms, contained 74% and 75% of pupils achieving above the first quartile. The advancement of the SMART students in grades 2 and 3 indicate that almost all of the students made more than one year of reading progress during the year. The median of these low-achieving first-graders moved from grade k.7 in September to grade 3.2 in May, a median increase of 2.5 years during one school year.

Table 2

SMART Grades 1 & 2 Composite Word Identification Reading Summary for 2004-2005

Slosson Oral Reading Test-Revision 3 (SORT-R3)

SD & WI Title 1 Classes, May, 2005

			Word Identification	Word Identification	Word Identification	Word Identification
	Number of	Pupil	September Median	May Median	May Median Percentile	May % Pupils Above Q1
Grade Level	Classes	N	Standard Score	Standard Score	Equivalent	(25 th %)
Gr. 1 SMART	12	177	95.5	120.75	90	98.30%
Gr. 1 Control	12	238	87 est.	101	52	74
Gr. 2 SMART	3	41	114	122	92	100%
Gr. 2 Control	10	117	101 est.	103	57	75

Controls were Fall scores of new SMART schools in grades 2 and 3 and consistent with national norms. Estimate for Grade 1 is the typical finding for first grade on the SORT-R3. Estimate for Grade 2 is from the score at the end of Grade 1 control classes.

In Table 3, the percentages of second-grade pupils at the Sunnyview Primary School in Knox County, TN scoring at proficient + and advanced levels on the Reading/Language Arts section of the statewide Tennessee Comprehensive Achievement Program (TCAP) are close to 90%. 53% of pupils at Sunnyview receive subsidized meals; 19% of the school population was African-American in 2005. This grade 2 cohort of pupils had received SMART in kindergarten, at which time 91% (72 of 79) read 10 or more words. When tested two years later in 2004 at grade 2, the dis-aggregated proportions of all students, economically disadvantaged students, and African American students were posted. For all three groups, the high kindergarten proportions of proficiency were sustained with 89-91% of pupils scoring at proficient or advanced levels in reading/language arts. The following year of 2005 shows a slight decline to 84-90% of student at proficient+ levels, but overall the students remain well above the goal for SMART achievement of at least one year of progress for 80% of pupils.

Table 3

SMART K Plus 2 Years: Grade 2 Title 1 School Composite TCAP % Reading/LA

Proficient + Advanced Sunnyview Primary School, Knox County TN, 2002-2005

		N Pupils/	Percen	t Proficient + Ac	lvanced
Year	Grade	Classes	All	Econ Disadv	African-Am
Wds May02	Kindergarten	79/4	91	NA	NA
TCAP 2004	2 K SMART	81/4	89	90	91
TCAP 2005	2 K SMART	86/4	90	84	85
TCAP 2003	2 control	80/4	82	77	72

2004: 47% F/R Meals; 2005 53% F/R Meals

NA=Not Available

TCAP= Tennessee Comprehensive Achievement Program

Table 4 shows reading results for grade 3 following one year of SMART kindergarten in 18 Title 1 elementary schools in Knox County Public Schools. Percentages of schools range from 77.8% to 94.4% for males and females and 83.3% of schools had 80% or more African American and economically-disadvantaged students reading at proficient or higher levels. These Tennessee analyses do not provide for subgroup analyses. Each of these categories therefore, contains students receiving special education, English-Language Lessons, mobile students, repeaters, etc. Even with these limitations, the proportions of students making a year of progress appears to be near the 80% criterion or higher.

Table 4

SMART K Impact at Grade 3 for TCAP Reading/Language Arts Proficiency + Advanced Achievement in 18 Title 1 Elementary Schools Knox County, TN 2005 1188 Students in 60+ Classes

Demographics (60+ classes) % Econ.	School N	Median %	Range %	Schools >80%	% schools
Disadvantaged	18	50%	31-98%		
% African Am	17	15.00%	1-38%		
% Prof + Adv Reading					
Males	18	82	67-100	14	77.8
Females	18	95	74-100	17	94.4
Econ Disadv	18	86.5	72-100	15	83.3
African Am	12	93	75-100	10	83.3

The district reports TCAP proportions by school only and the number of classes is not given.

As an example of our accomplishments in meeting this performance objective, the improved TCAP scores at West View Elementary school are illustrative. The West View Elementary School was a school that in May of 2002 taught only 62.7% of kindergarteners to read at least 10 words indicative of mature reading readiness. They implemented SMART/Boost-Up program, as well as two other new interventions in the 2002-03 school year. By May of 2003, an estimated 80% of kindergarteners were reading at least 10 words, and the 2005 grade 3 results show a "bump" ranging from 14.8% to 33.3% in the proportions of pupils who are reading at proficient and advanced levels on the TCAP. Compared to the previous year, the 2005 students taking the TCAP test documented a marked increase in the proportions of proficient reading achievement three years following the kindergarten stimulation program. A similar "bump" in proportions of proficient students is noticeable in many of the schools compared to students who attended kindergarten prior to the introduction of the SMART program. This demonstrates how assuring that students are ready for first grade has a continuing impact on school progress and mastery of reading that is still evident in third grade. The impact of the SMART program in kindergarten is most noticeable in the at-risk for school difficulties groups, including racial minorities (African Americans in this analysis) and students with economic disadvantage (Free/Reduced-price Meals).

Table 5

SMART K Plus 3: Grade 3 Title 1 Reading/Language Arts
TCAP Impact Before and After SMART (Example)
West View Elementary School
(G)

Knox County, TN 2002 - 2005

Demographics 2004 2005 % Change

School N % Econ. Disadv % White % African Am % Hispanic		187 98.2 63.1 26.2 10.2	
Gr. 3 N est.		31	
GI. 5 IN ESC.		31	
% Prof + Adv Reading			
White	76.4	83.3	6.9
African Am	66.7	100	33.3
Econ Disadv	74.1	88.9	14.8
Non Disabled	77.3	88	10.7
Non-LEP	70.4	88	17.6
Non-Migrant	71.4	88	17.6
Males	60	80	20
Females	77.8	93.3	15.5

A "G" or gamma school was described in 2002 as having many negative extenuators, such as low-income, discipline, attendance and other problems.

Low-achieving students

Low-achieving kindergarteners who perform well after more than one year of SMART/Boost-Up are an example of the cumulative effect of stimulation on students from economically-disadvantaged environments. For example, in Huron, SD, by the end of first grade, after two years of SMART/Boost-Up, all but one female (93.3%) scored at proficient or advanced levels in reading on the statewide California Achievement Test even though only 15 of 29 students (13 males and 28 females) in two classes at the Title 1 schools read only 1- 10 words at the end of kindergarten. Also, the third grade SMART cohort with more than one year of SMART scored at the same reading level as third graders in the highest SES school in the district. The third-graders at Title 1 Jefferson El in Huron achieved mean scores at the 69th percentile in reading and social studies after three years of SMART--the same scores as the most advantaged students at Washington Elementary. The principles of duration and frequency (repeated input) are at work to compensate for the pre-school deprivation experienced by these pupils. Some students from at-risk populations benefit from more than one year of stimulation in order to achieve at levels comparable to non-risk peers.

1.c. 80% of Kindergartners Meeting School Readiness Standards

For this performance measure, we report the data in two ways. First, we provide the data in two geographical groups: data from Knox County Public Schools, TN and data from IA, DE, SD, TN (outside of Knox County) and WI. We do this first because of differences in the tests that were administered and secondly, to highlight the contributions of SMART in Knox County, a large urban school district. We also provide an aggregate picture of the data.

Results for Knox County, TN Kindergartners

For Knox County, TN, a large urban school district, the district chose a 48-word list test similar to the Brigance test as a measure of reading readiness. In this test, children are tested at the end of kindergarten to determine their ability to read at least 10 words. Each student was tested individually with a 5-second response time limit per word in a distraction-free, quiet and secluded classroom setting or in a separate room. The test stimuli consisted of cards containing word lists in half-inch high letters supplied by the publishers that were placed on a flat-top table surface or held upright at a comfortable distance by the teacher and/or pupil. Words were masked by a card and teachers counted to five silently at the exposure of each new word.

In kindergarten, the number of words recognized within the 5-second response limit were totaled for each pupil; The medians for each class, the numbers of pupils reading 10 or more words in May, and the total number of students in each class were calculated and entered into a spreadsheet. The 10-word criterion is a common threshold of adequacy for May kindergarten (Virginia Department of Education, 2006). Dis-aggregation of word identification proportions of males and females by gender, economic disadvantage and racial minorities were entered and calculated for students in Title I schools in addition to the composite of males and females. Excluded pupils were those receiving individualized programming in special education (not speech), overage/redshirt kindergarteners who were age 6 or older entry on September 1 (including repeaters), pupils who left or entered the class after December 1, poor attendance and Hispanic and/or other English-Language Learners. All others were counted as regular students suitable for valid analysis. Kindergarten word identification data was analyzed by halfday and daily all-day schedules. Note: Because non-Title I schools tend to have as high or higher proportions of students scoring at 10+ levels in the word list test than in Title I schools, our analysis focuses on students in Title I schools. This assumption was verified by inspecting data from schools with moderate proportions of economicallydisadvantaged students.

For 2004-05 in Knox county, 51 classrooms blended and integrated SMART/Boost-Up with Kindergarten Literacy Assessment and Instruction (McGill-Franzen, 2006) to boost the early literacy. From those classrooms, 806 students are included in the data. 87 students are excluded from the data due to their status in special education or ELL. As shown in Table 6, of the 806 students, 90.1% met the 10+ word criterion. **Thus, the objective was met for 80% of kindergartners who complete 80 hours of SMART/Boost-Up to meet readiness standards.** Furthermore, 86.2% of the economically disadvantaged students met the 10+ word criterion and 83.4% of the minority students met the 10+ word criterion.

For Knox 2003-04, a total of 3,097 kindergartners were receiving the SMART/Boost-Up program blended with Kindergarten Literacy Assessment and Instruction. For purposes of this performance objective, the analysis of the 18 Title 1 schools with 63 classes (excluding the 10 Project Grad schools that are using the Success For All program, but not SMART) provides the relevant data. Of these 1121 students, 947 (84.5%) of the SMART/Boost-Up all-pupil composite read 10 or more words in May 2004. Furthermore, 640 students (57.1%) recognized more than 26 words and 42/63 classes had

class medians of 26 words or more. The median of class medians for Knox 04 was 39.5 words recognized.¹

Table 6

80% of May Kindergarteners Identify 10 or More High-Frequency Words Following 80 Hours of SMART/Boost-Up (District 48-word Kindergarten list; 5-second limit per word)

All Regular/Regular Economically-Disadvantaged/Regular Minority Males & Females: At-Risk for School Low Achievement; 51 Classes in Title 1 Schools in Knox County Public Schools, TN, May 2005

Target Compared to Actual Performance Data for Raw Numbers/Ratio/% for Federal Reporting

		MALE Kii	ndergartene	ers						
Measure	Skill	Regular	Total N	Regular	EconDis	EconDis	EconDis	Minority	Minority	Minority
		Males	Regular	Males	RegMale	Regular	RegMale	RegMale	Regular	RegMale
48	Quick	N>Q1	Males	%>Q1	N>Q1	Male N	%>Q1	N>Q1	Male N	%>Q1
Common	Word									
Words	ID	Target	Target	Target	Target	Target	Target	Target	Target	Target
		Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%
		327	409	80	116	145	80	67	84	80
		Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual
		Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%
		356	409	87.00%	117	145	80.70%	66	84	78.60%
		FEMALE	Kindergarte	eners						
48	Quick	Regular	Total N	Regular	EconDis	EconDis	EconDis	Minority	Minority	Minority
Common	Word	Females	Regular	Females	RegFemale	Regular	RegFemale	RegFemale	Regular	RegFemale
Words	ID	N>Q1	Females	%>Q1	N>Q1	Female N	%>Q1	N>Q1	Female N	%>Q1
		Target	Target	Target	Target	Target	Target	Target	Target	Target
		Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%
		331	414	80	141	176	80	74	93	80
		Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual
		Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%
		379	414	91.50%	154	176	87.50%	80	93	86.00%

Regular students: Excluding from analysis students in Special Education, English-Language Learners, and Overage/Redshirts Age 6 at September 1 Kindergarten entry. All Hispanics excluded to control for ELL in this Knox County data analysis.

In sum, these Knox County results indicate that SMART/Boost-Up contributed to the increased reading readiness of kindergartners in Title I schools in a large, urban district as indicated by attainment of the target performance measure for reading readiness.

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¹ McGill-Franzen, Anne. 2006 Kindergarten Literacy: Matching Assessment and Instruction in Kindergarten. New York: Scholastic.)

Results for IA, DE, SD, TN (outside of Knox County) and WI Kindergartners

1. MRT6 May 2004: Mature Readiness for First Grade in SD and WI

At the end of the initial year of this two-year SMART/Boost-Up project, the well-regarded Metropolitan Readiness Test-Sixth Edition (Level 2 for group administration) was used to provide indicative evidence of effectiveness with 16 classrooms in three South Dakota and Wisconsin school districts. It is a nationally-normed pencil-paper test that is group-administered by the classroom teacher.² All classes were on the daily all-day schedule, and 12 of the 16 classes were in Title 1 schools where almost all students received free or subsidized meals. The only pupils excluded from the analysis were 29 overage redshirts who probably would have inflated the score levels, and 5 students receiving individualized special education services. Only 16 (7.1%) of the students were African American and Native American racial minorities combined.

As shown in Table 7, these May 2004 results show median percentile equivalents for each subtest to be above the national norm mean (52nd to 67th percentiles) and the proportions of non-excluded students above the first quartile range from 82% to 91.5%. **These high proportions of students prepared to master first-grade curriculum met the project goal of at least 80% of kindergarteners achieving a state of mature readiness.** Definitive analysis with a larger set of student scores in the second year provides dis-aggregated proportions for subgroups of economically disadvantaged and racial minority students.

The highest proportions of readiness occur in Beginning Reading Skills and the Pre-Reading Composite in which students mastered Letter-Sound correspondence, Beginning Sounds of words and identification of missing sounds in spoken words. The SMART program classroom component integrates specific brain input modeling by the teacher to develop quick and automatic mastery of these pre-phonetic skills that are assumed to be mature in relation to first-grade curriculum. The high proportion of 91.5% of kindergarteners scoring at the normal level and above is consistent with previous findings as evidence of SMART effectiveness.

Table 7

Aggregate SMART Kindergarten First-Grade Reading Readiness Performance Metropolitan Readiness Tests-6th Edition, Level 2 (Harcourt Brace & Co., 1995) 16 Classes at SD & WI Schools, May

2004

SMART K Median % Pupils % Pupils % Pupils % Pupils Regular Class Above Exceeding Above Norm Exceeding

14

² Nurss, J. R. and McGauvran, M.E. 1995 Manual: Metropolitan Readiness Tests, Sixth Edition. San Antonio, Texas: Harcourt Brace Educational Measurement.

MRT6 Areas & Composite	Pupil N*	Percentile Equiv	Q1 (SS 90+)	Nat'l Norm	>Mean (SS100)	Nat'l Norm
Beginning Reading Area*	224	63	91.5	16,5	69.2	19.2
Pre-Reading Composite*	224	55	87.9	12.9	59.4	9.4
Quantitative Concepts Area	224	62	82.1	7.1	61.2	11.2
Story Comprehension Area	224	67	89.3	14.3	65.2	15.2

^{*}The 118 males and 106 females exclude 29 overage redshirts and 5 (2%)% students in Special Education

Standard Scores: Mean = 100, SD = 15

2. MRT6 May 2005: Mature Readiness for First Grade in IA, DE, SD, TN and WI

In 2005, kindergartners in IA, DE, SD, TN and WI all took the MRT6 assessment. Unlike the 2004 composite data which cannot be definitive, disaggregation has been done for the May 2005 data and the N is larger in 2005. In this data, a male/female combined composite of kindergarteners for the 2004-2005 school year totaled 922 students (242 in 13 half-day classes and 680 in 40 daily all-day classes) in 5 states (DE, IA, SD, TN, & WI). This composite included 110 students (11.4%) in special irregular categories of overage, ELL, special education, late transfers and repeaters that were later excluded for comparative analysis. Proportions of composite students scoring above the readiness threshold of 80% were approximately the same in both daily all-day and half-day classes, ranging from 77.3 to 92% for the four areas of the Metropolitan Readiness Test-Sixth Edition (Level 2-group administered).

As shown in Tables 8 and 9, analysis of 812 non-excluded kindergarteners (440 males and 372 females) from 54 classes in Delaware, Iowa, South Dakota, non-Knox County Tennessee and Wisconsin revealed normal or higher proportions of first-grade readiness for Beginning Reading Skills area (93%), Story Comprehension (82.5%), Quantitative Concepts (79.9%) and the Pre-Reading Composite (91.5%). These kindergarteners who completed 80 or more hours of SMART/Boost-Up met or exceeded the 80% of pupils target for meeting readiness standards as measured by each of the four MRT6 subtests. Two half-day classes with less than 40 hours of SMART/Boost-Up produced proportions of pupils ready for first grade that were 14-22% lower than the above composite, and 20-26% lower than six half-day classes in a nearby school experiencing 80+ hours of the program. This difference in proportions of pupils with first-grade readiness is statistically significant (Chi-square=5.8, df=1, 1-tail, p=.001) favoring the classes receiving the daily half-hour of vigorous SMART/Boost-Up

stimulation. Furthermore, 73.5-90.8% of 140 males and 109 females receiving Free/Reduced Price Meals representing LowSES/Economically-Disadvantaged status met the first-grade readiness standard in reading. There were 88 minority students (51 males, 37 females), and 62.5-87.5% of those pupils scored above the readiness criterion. In each of these at-risk categories of males, economically-disadvantaged and minority status, the highest proportions of readiness were in the area of Beginning Reading Skills and the Pre-Reading Composite, curriculum areas in which explicit SMART procedures are highly effective. The lowest area was consistently in Story Comprehension, indicating slightly lower vocabulary comprehension and story memory. The Delaware classes, especially, contained many English-Language learners who may have lowered the classroom vocabulary level for native English-speaking pupils.

Table 8

1.c. 80% of Male Kindergarteners Attain Reading Readiness Maturity on the MRT6 Following 80 Hours of SMART/Boost-Up (Metropolitan Readiness Test-Sixth Edition) Beginning Reading Area and Pre-Reading Composite

All Regular, Regular Economically-Disadvantaged and Regular Minority Males: At-Risk for School Low Achievement;

54 Year-2 Project Classes (45 Title 1) in DE, IA, SD, TN, & WI, May 2005

Target Compared to Actual Performance Data for Raw Numbers/Ratio/%

MRT6 Areas for Reading	Regular	Total N	Regular	EconDisadv	EconDisadv	EconDisadv	Minority Reg	Minority	Minority Reg
Readiness are BR and	Males	Regular	Males	RegMale	Regular	Reg Male	Male	Regular	Male
PRC	N>Q1	Males	%>Q1	N>Q1	Male N	%>Q1	N>Q1	Male N	%>Q1
	Target Raw	Target	Target	Target	Target	Target	Target Raw	Target	Target
BR PRC	No. 352	/By=Ratio 440	% 80	Raw No. 112	/By=Ratio 140	% 80	No. 41	/By=Ratio 51	% 80
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual
	Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%	Raw No.	/By=Ratio	%
Beginning									
Reading	404	440	91.80%	123	140	87.90%	43	51	84.30%
Story Comprehension	347	440	78.90%	101	140	72.10%	27	51	52.90%
Quantitative Concepts	347	440	78.90%	100	140	71.40%	33	51	64.70%
Pre-Reading Composite	396	440	90%	122	140	87.10%	41	51	80.40%

Regular students: Excluding from analysis students in Special Education, English-Language Learners, Students Age 6 on September 1 Kindergarten entry.

Reading Readiness: Beginning Reading Area and Pre-Reading Composite x 3 populations = 6/6 met criterion

Table 9
1.c. 80% of Female Kindergarteners Attain Reading Readiness Maturity on the MRT6 Following 80 Hours of SMART/Boost-Up

(Metropolitan Readiness Test-Sixth Edition) Beginning Reading Area and Pre-Reading Composite Regular Economically-Disadvantaged and Regular Minority Females: At-Risk for School Low Achievement; 54 Year-2 Project Classes (45 Title 1) in DE, IA, SD, TN, & WI, May 2005

Target Compared to Actual Performance Data for Raw Numbers/Ratio/%

MRT6 Areas for Reading Readiness are BR and PRC	Regular Females N>Q1	Total N Regular Female s	Regul ar Femal es %>Q1	EconDisa dv Reg Female N>Q1	EconDisa dv Regular Female N	EconDisa dv Reg Female %>Q1	Minority RegFem ale N>Q1	Minority Regular Female N	Minority RegFem ale %>Q1
BR PRC	Target Raw No. 298	Target /By=Rat io 372	Targe t % 80	Target Raw No. 87	Target /By=Rati o 109	Target % 80	Target Raw No. 30	Target /By=Rat io 37	Target % 80
	Actual Raw No.	Actual /By=Rat io	Actua I %	Actual Raw No.	Actual /By=Rati 0	Actual	Actual Raw No.	Actual /By=Rat io	Actual
Beginning Reading	351	372	94.40 %	104	109	95.40%	34	37	91.20%
Story Comprehension	323	372	86.80 %	89	109	81.70%	28	37	75.70%
Quantitative Concepts	302	372	81.20 %	84	109	77.10%	22	37	59.50%
Pre-Reading Composite	347	372	93.30 %	103	109	91.70%	35	37	94.60%

Regular students: Excluding from analysis students in Special Education, English-Language Learners, Students Age 6 on

September 1 Kindergarten

entry.

Reading Readiness: Beginning Reading Area and Pre-Reading Composite x 3 populations =

6/6 met criterion

While we meet our projected 80% proportion in Beginning Reading Skills and Pre-Reading Composite, most at-risk, low-performing students require at least two years of stimulation in order to catch up with advantaged peers in areas of Quantitative Concepts and Story Comprehension. These skills that involve explanatory language, explicit

vocabulary, concrete and abstract concepts, listening comprehension, memory require intentional presentations. Note that some low scores by the minorities influence the low scores in Story Comprehension and Quantitative Concepts in the EconDisadv subpopulation in which some students have more than one at-risk variable (both low income and racial minority).

The improvement in word recognition for English-Language Learners in SMART/Boost-Up classrooms in DE is illustrative as an example of our accomplishments in meeting this performance objective. Twenty-eight Hispanic English Language Learners (ELL) in the Frankford and Georgetown schools (Indian River School District in rural southern Delaware) participated in the SMART/Boost-Up brain stimulation program integrated into the regular kindergarten curriculum during the 04-05 school year. These students participated in supplementary ELL classes in addition to the regular curriculum and beginning English vocabulary was repeated and reviewed in the regular classroom. For the composite of all 28 males and females, 24 of the 28 students (85.7%) read more than 10 words, thus attaining the SMART goal of 80% of students exhibiting readiness to read in first grade.

The characteristics of the pupils were:

The male ELL students consisted of 17 Hispanics with HFD median of 10 (10/17 had 10+ features indicating mental abilities at regular education levels). In September, only four pupils were able to recognize 1-5 words. By May, the median number of high-frequency American English words recognized on the Brigance high-frequency wordlist was 19 words, and 13 of the 17 males (76.5%) recognized 10 or more words. Of the four students below the reading readiness threshold, two pupils read 9 words, 2 read just 2 words, and one was identified early as having special needs. Of note, these students began SMART/Boost-Up at a lower ability level, as evidenced by their scores on the Wepman Auditory Discrimination Test. In that test, their low abilities to distinguish phonemes was apparent with pre-post standard score medians moving from 65 to 83 and 2/17 increased to 6/17 males above the 25th percentile (Q1). Even though these ELL kindergarteners demonstrated low phoneme discrimination readiness for phonetic reading instruction, with participation in SMART/Boost-Up, their word recognition skills were at the regular level and close to the 80% mastery expectation of native English speakers.

The 11 female Hispanic ELL students were more mature in both measures. All 11 females recognized more than 10 words with a median of 23 words following a September median of recognizing only one word. Their Wepman Auditory Discrimination Test medians moved from 83 to 100 and proportions above Q1 moved from 4/11 to 9/11.

Only 15 of the 28 students (53.6%) scored in the normal range for auditory discrimination, indicating that development of this pre-phonetic ability is occurring more slowly in these males, the males were less familiar with spoken English sounds, or hearing may be impaired in some students. The ability to identify early the pupils who show need for more in-depth assessment and individual programming is important, and

the SMART/Boost-Up results easily identify pupils with potential problems when compared to able peers. These kindergarteners as a group demonstrate May kindergarten word recognition at levels that indicate ability to learn in an integrated class with supplemental English instruction.

Results for All Non-Florida Kindergartners Based on 10+ Word List Assessments.

All kindergartners in the non-Florida group – this includes kindergartners from IA, DE, SD, WI and all TN students – took some version of the 10+ word list test. As discussed above in Knox County discussion for explanation of tests, at the kindergarten level, the test is of word identification/recognition within 5 seconds of exposure to a word from a 567-word Brigance K & 1 Screen list and a 48-word list in Knoxville. Few entering kindergarteners (<10%) read more than 2 words; most read 0 words in September. A year's progress in reading at the kindergarten level is to attain the milestone of reading at least 10 words in May.

As can be seen in Table 10, more than 80% of May SMART kindergartners at-risk for low achievement (males, male F/R meals, male minorities, female F/R meals and female minorities) successfully identified 10 or more words, indicating at least one year of progress in reading and reading readiness in all five of the five comparisons of Target and Actual Data for these student categories. In sum, the SMART program prepares at least 80% of regular kindergartners to achieve the 10+ word identification milestone in early reading and reading readiness.

Table

10

1.c. 80% of Male May Kindergarteners Identify 10 or More High-Frequency Words Following 80 Hours of SMART/Boost-Up

(Brigance K & 1 Screen 37-word list and Knox County Public Schools 48-word Kindergarten list; 5-second limit per word)

All Regular/Regular Economically-Disadvantaged/Regular Minority Males & Females: At-Risk for School Low Achievement;

54 Year-2 Project Classes (45 Title 1) in DE, IA, SD, TN, & WI, May 2005

Target Compared to Actual Performance Data for Raw Numbers/Ratio/% for Federal Reporting

		MALE	Cindergart	eners							
Measu		Regula	_	Regul	EconDisad	EconDisa	EconDisad				
re	Skill	r	Total	ar	V	dv	V	Minority	Minority	Minority	
		Male	Regular	Male	RegMale	Regular	RegMale	RegMale	Regular	RegMale	
37 or	Qui										
48	ck	N>Q1	Male N	%>Q1	N>Q1	Male N	%>Q1	N>Q1	Male N	%>Q1	
Comm	Wor										
on	d										
				Targe							
Words	ID	Target Raw	Target /By=Rat	t	Target	Target	Target	Target	Target /By=Rati	Target	
		No.	io	%	Raw No.	/By=Ratio	%	Raw No.	0	%	
		536	670	80	237	296	80	112	140	80	
		Actual	Actual	Actua	Actual	Actual	Actual	Actual	Actual	Actual	

				I						
		Raw No.	/By=Rat io	%	Raw No.	/By=Ratio	%	Raw No.	/By=Rati o	%
		594	670	88.70 %	253	296	85.50%	126	140	90.00%
		FEMAL Kinderg	E arteners							
37 or 48 Comm	Qui ck Wor	Regula r Femal	Total	Regul ar Femal	EconDisad v	EconDisa dv	EconDisad v RegFemal	Minority RegFem	Minority	Minority RegFem
on	d	е	Regular Female	е	RegFemale	Regular	е	ale	Regular Female	ale
Words	ID	N>Q1	N	%>Q1	N>Q1	Female N	%>Q1	N>Q1	N	%>Q1
				Targe						
		Target Raw	Target /By=Rat	ť	Target	Target	Target	Target	Target /By=Rati	Target
		No. 536	io 670	% 80	Raw No. 254	/By=Ratio 318	% 80	Raw No. 119	o 149	% 80
		Actual Raw	Actual /By=Rat	Actua I	Actual	Actual	Actual	Actual	Actual /By=Rati	Actual
		No.	io	%	Raw No.	/By=Ratio	%	Raw No.	0	%
		611	670	91.20 %	205	240	90 600/	124	140	90 00%
		611	670	70	285	318	89.60%	134	149	89.90%

Regular students: Excluding from analysis students in Special Education, English-Language Learners, and Overage

Redshirts Age 6 at September 1 Kindergarten entry.

2. Project Objective: To fully integrate SMART/Boost-Up with the academic curriculum in 90-95 elementary schools in six states. Update this data as needed.

2a. Performance Measure: 14,000 students, primarily from inner city, rural and low-income areas, participating in the SMART/Boost-Up program.

Measure Type: Project

(Target) Raw Number: 14,000

(Target) Ratio: n/a (Target) %: n/a

(Actual Performance Data) Raw Number: 15,614

(Actual Performance Data) Ratio: n/a (Actual Performance Data) %: n/a

2b. Performance Measure: Two years after implementation, 80% of participating schools will continue their SMART/Boost-Up programs.

Measure Type: Project

(Target) Raw Number: n/a

(Target) Ratio: 72-76 schools of the 90-95 served will continue SMART two years after implementation

(Target) %: 80%

(Actual Performance Data) Raw Number: n/a

(Actual Performance Data) Ratio: 86 out of the 116 schools served indicate they

will continue SMART.

(Actual Performance Data) %: 74

Explanation of Progress (Include Qualitative Data and Data Collection Information)

Our performance measure data indicate that 15,614 children have participated in SMART/Boost-Up from fall of 2003 through fall of 2005 as a direct result of this grant. Thus, we have exceeded our grant objective of reaching 14,000 students. To date, we have fully integrated SMART/Boost-Up curriculums in 116 schools, a significantly higher number than anticipated at the beginning of the grant cycle. Furthermore, this grant has allowed MLRC to expand SMART/Boost-up to nine states, providing service to students primarily from inner city, rural and low-income areas.

Data has been collected on the number of students participating in SMART and on the intention of schools participating in SMART to continue the program after initial implementation. Data on the number of students is collected annually in the beginning of the year when a site signs an Agreement of Expectations with the MLRC. In that document, the site is required to indicate the number of classrooms and students to be involved in the program for the upcoming school year. A tally is kept based on that annual information.

Data on a school's intention to continue with SMART is collected as the MLRC notifies the school of mentoring opportunities for the following year or, for schools that have completed their full three years of mentoring, the MLRC receives notice of continuation either by the site's communication with the MLRC or survey via email to the SMART principal.

At the time of this report, the MLRC has contracted with schools in San Antonio, Texas and Sika, Alaska to hold workshops in those locations in June and August of 2006, with plans for the schools to become Designated Learning Sites during the 2006-07 school year. In addition, expansion within existing SMART states has also been indicated by other districts, including substantial growth within Tennessee. We view this growth and expansion as a direct result of the funding made available through this grant. Based on communication within the existing sites, those 116 existing sites that have indicated they will continue participating next year are:

- Delaware Previously 11 schools/3 projected for next year
 - Florida Previously 8/unknown at this point due to local funding questions

- Iowa Previously 2 schools/2 projected for next
- North Carolina 9/9
- North Dakota 1/1
- Massachusetts 2/2
- Tennessee 55/50
- South Dakota 14/9
- Wisconsin 15/10

Thus, while we have clearly exceeded our goals on the number of SMART students and schools involved, we are unable at this point to provide final information on our project objective of 80% of participating schools continuing in SMART after implementation. However, we are close to that goal, with 74% of the current schools scheduled to continue in SMART. Most of those unable to continue have indicated it is due to lack of funding for the project.

3. Project Objective: To train and mentor at least 800 educators from participating schools in SMART/Boost-Up theory and techniques.

3a. Performance Measure: 800 educators trained in SMART/Boost-Up theory and techniques through four-day workshops and on-site mentoring.

Measure Type: Project (Target) Raw Number: 800

(Target) Ratio: n/a (Target) %: n/a

(Actual Performance Data) Raw Number: 817

Actual Performance Data) Ratio: n/a (Actual Performance Data) %: n/a

Explanation of Progress (Include Qualitative Data and Data Collection Information)

The MLRC held a total of 16 workshops for educators from around the country during the summer months and school years 2003 through 2005. We collected data on the numbers of teachers trained in SMART through registrations for the training workshops, for a total of 817 teachers trained from states outside of Minnesota. From this data, we have determined that we met our objective of training 800 educators in SMART/Boost-Up theory and techniques through four-day workshops. In addition, the large majority of these SMART teachers also received follow-up mentoring. In order for a school to qualify for SMART and receive monthly on-site mentoring, a minimum of four teachers from each site must participate in the workshop. Over the course of the grant, 794 of the trained SMART teachers received mentoring; 264 in 2003-2004, 376 in 2004-05 and 154 in the final school year 2005-06.

In addition to meeting our goal of trained SMART teachers, the grant allowed us to update on a regular basis the materials presented in the four-day workshop, thereby incorporating the most current brain research. In addition, the MLRC was able to take into account workshop participant feedback, make adjustments based on input, update the Power Point presentation and make corresponding adjustments to the SMART Manual and Curriculum Guide, a reference tool taken back to the classroom describing

implementation of all SMART activities.

By extending the grant period from the end of September to the first of March, 2006, the MLRC/NVS was able to provide follow-up, on-site mentoring to four of the original control schools in Leon County, Florida that had elected to become SMART schools and to four of the original six SMART schools as well. As stated in an earlier report on the grant, in June and July of 2005, two workshops were held in Tallahassee to train the control group teachers and to re-train the experienced SMART teachers who chose to participate. Between these two workshops, some 50 teachers were trained and prepared to implement the program. Under the extension, those sites received on-site mentoring for six months and:

- Establishing individual site team plans for program implementation involving initial planning in areas such as room set-up and program time allocation
- Observing individual teachers in classroom SMART implementation and providing support when needed
- Helping to establish program activities that continue to move forward at an appropriate level for the students involved
- Developing and strengthening individual site SMART team model that will allow for continuation of program upon completion of mentoring
- Providing information for administrative, parent, and community groups

A report will be published once the final data has been compiled and analyzed by EPPC member, Jennifer Solomon.

4. Project Objective: To train three new education professionals as mentors capable of helping schools replicate SMART/Boost-Up.

4a. Performance Measure: Three new fully-trained SMART/Boost-Up mentor/trainers (seven already exist) capable of (a) presenting formal content on the neurophysiology of brain development and its connection to learning, and (b) mentoring schools through the process of integrating SMART/Boost-Up into their existing curriculum.

Measure Type: Project
(Target) Raw Number: 3
(Target) Ratio: n/a
(Target) %: n/a
(Actual Performance Data) Raw Number: 11
(Actual Performance Data) Ratio: n/a
(Actual Performance Data) %: n/a

Explanation of Progress (Include Qualitative Data and Data Collection Information)

The MLRC tracks the number of mentors because it contracts with and trains those individuals. We have deviated from our approved plan because we exceeded the number of mentors we anticipated training by 8. That is, although there was a deviation from the approved plan, it has allowed us to considerably exceed our project objective... As we added additional mentors, the grant allowed us to develop a set of required criteria for adding mentors and how best to train them for those responsibilities. Each person brought on as a mentor is required to participate as an observer in a minimum of three full four-day SMART workshops. Following the third workshop, the new mentor is allowed to co-present, along with an experienced mentor, individual sections of the workshops. Some sections require additional training. The MLRC worked with a Pediatric Physical Therapist from Texas who helped us to develop a section on a developmental issue that often arises in the classroom and is recognized in the field as indicating a child has "retained reflexes". Prior to presenting a section on that particular area, the mentor is required to be certified through providing video, etc. thereby showing his or her expertise in the field. In addition, the new mentor is required to shadow an experienced mentor during the on-site visits prior to mentoring alone.

5. Project Objective To disseminate results of this project through New Visions' web site and at least six publications, workshops or conferences targeting regional or national education audiences.

5a. Performance Measure: Annual reports on the project broadly disseminated through public education venues. Check these numbers and change as necessary.

Measure Type: Project
(Target) Raw Number: 6
(Target) Ratio: n/a
(Target) %: n/a
(Actual Performance Data) Raw Number: 8
(Actual Performance Data) Ratio: n/a
(Actual Performance Data) %: n/a

Explanation of Progress (Include Qualitative Data and Data Collection Information)

We have kept an ongoing list of all broadly-disseminated reporting on the project by staff involved. Since our last annual report, a SMART presentation was given at in January 2005 at the International Alliance for Learning in Atlanta, GA. An MLRC team also presented on SMART in Sweden in the summer of 2005. In January 2006, two MLRC team members presented at the Eric Jensen "Learning & the Brain" Conference in San Diego, CA. Lyelle Palmer presented "Research-Based SMART Kindergarten." at the Annual International Conference of the International Alliance for Learning, Alexandria, VA. January 13, 2006. With the addition of these presentations to those done during the first year of the grant (Jan 2004 International Alliance for Learning, Atlanta, GA; March 2004 Franklin TN Music and Learning Conference; and May 2004 MN K Conference), we have exceeded our objective to disseminate results of the project through at least six publications, workshops or

conferences targeting regional or national education audiences.—In addition, results have been posted on the MLRC website.