



**Headsprout**

Results Count

Case Studies and
Additional Evidence



Learning A-Z has merged Headsprout's two elementary reading products — Headsprout Early Reading and Headsprout Reading Comprehension — into one adaptive, effective, and fun K-5 online reading program. From introducing early readers to key reading fundamentals to growing reading comprehension skills for more established readers, Headsprout is the perfect resource to help children become capable and confident readers.



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Results Count

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Section 1: Case Studies

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CASE STUDY REFERENCE:

PS 106, New York Public Schools

Randomized Control Study of Headsprout Early Reading Shows Substantial Reading Gains

P.S. 106 Edward E. Hale Elementary School, NY

Grades: PK-5

Enrollment: 798 (74% African American; 23% Hispanic or Latino; 2% American Indian/Asian; 1% Caucasian)
Percent of students from families receiving public assistance: 91% to 100%

To study the effects of adding Headsprout Early Reading as a supplemental reading program, a rigorous scientific evaluation was conducted within the New York City Public Schools, at PS 106, an elementary school in Brooklyn, during the 2003–2004 school year. At PS 106, 91% to 100% of students come from families receiving public assistance, and typically 70% of the fourth-grade students have not demonstrated reading proficiency. In the randomized control experiment, half the kindergarten and first-grade classes used Headsprout Early Reading, while the other half continued their typical curriculum. Both groups received 180 minutes of reading instruction per day, with the experimental group including the Headsprout program in their literacy instruction 3 to 5 days a week.

Outcome data (measured across two different standardized tests) indicate substantial gains made by both kindergarten students (see Figure 1) and first-grade students (see Figure 2) who completed at least 70 of the 80 lessons in the Headsprout program, when compared to students not using the Headsprout program.

Due to the outstanding success of these initial outcome data, PS 106 purchased Headsprout Early Reading in 2004–05 for all its kindergarten and first-grade students and for some of its intervention, special education, and English Language Learner students, and has continued to do so to the present (2009–2010).





Kindergarten—Standardized Test Outcomes

PS 106—Brooklyn, NY

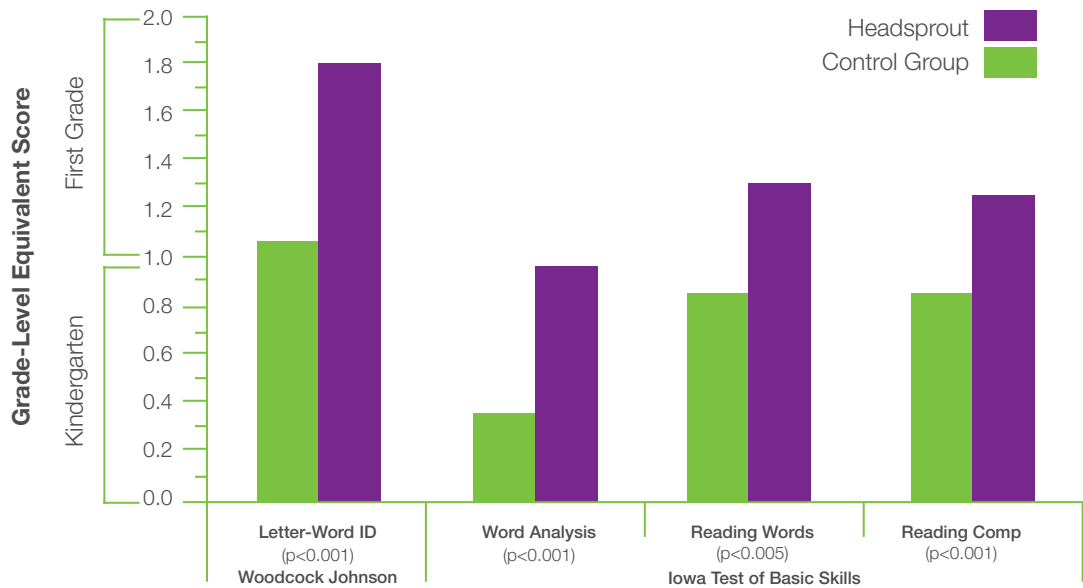


Figure 1. Mean standardized test outcome scores for treatment (completing or nearly completing Headsprout—right bars in pairs) and control (no Headsprout—left bars in pairs) kindergarten students. All outcome differences (increased grade equivalent scores using Headsprout) are statistically significant (p values are indicated beneath the subtests).

First Grade—Standardized Test Outcomes

PS 106—Brooklyn, NY

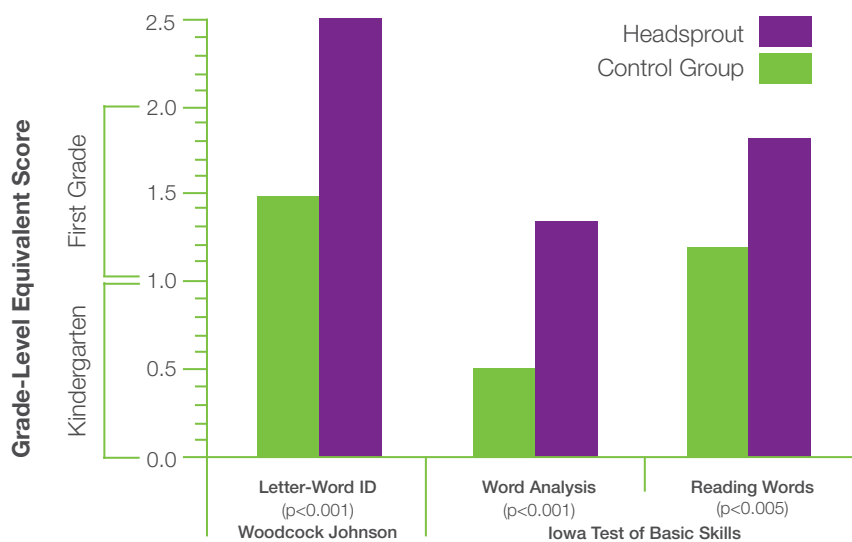


Figure 2. Mean standardized test outcome scores for treatment (completing or nearly completing Headsprout—right bars in pairs) and control (no Headsprout—left bars in pairs) first-grade students. Outcome differences (increased grade-equivalent scores using Headsprout) between the pairs are substantial.





CASE STUDY REFERENCE:

NYC Students Reading Above Grade Level with Headsprout Early Reading

Private Elementary School, New York, NY
Grades: PK-8

A private elementary school in New York City, serving low-income families, began using Headsprout Early Reading with all their first graders in the 2002-2003 school year. They continued to use the Headsprout program in subsequent school years.

The Iowa Test of Basic Skills (ITBS) is typically administered to all of the first graders in the late spring of each school year. Data for the school years is presented below. Prior to using the Headsprout program, ITBS student reading scores were below grade level. After using the Headsprout program, first graders scored well above grade level (see Figure 3).

First-Grade Outcome Data Compared Across Years

New York City / Iowa Test of Basic Skills

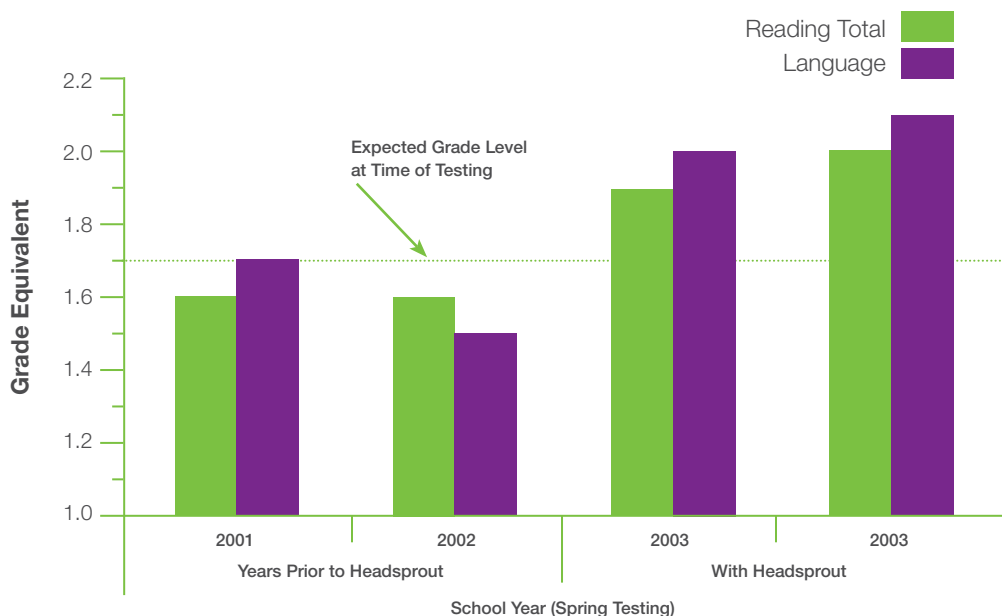


Figure 3. Grade-level equivalent scores for the reading (left bar) and language (right bar) subtests of the ITBS, for first graders in a low-income private school in New York City. Testing was conducted in April of each school year. The horizontal line shows expected grade level at time of testing (1.7). The first two pairs of bars indicate results prior to using Headsprout. The second two pair of bars indicate above grade level results while using Headsprout.





CASE STUDY REFERENCE:

Budlong Elementary, Los Angeles Unified School District

Kindergarteners Using Headsprout Early Reading Achieve Significant Reading Outcomes

Budlong Avenue Elementary School

Grades: PK-8

Enrollment: 1305 (74% Hispanic/Latino; 26% African American)

Free/reduced lunch: 89%

Percent of students from families receiving public assistance: 91% to 100%

Parks Huerta Primary Center

Grades: Kindergarten

Enrollment: 116 (78% Hispanic/Latino; 22% African American)

Free/reduced lunch: 97%

Historically, fewer than 20% of Budlong's second-grade students have met or exceeded state standards for reading proficiency. Research suggests those who fall behind in the first three years of their schooling will continue to fall behind and may never become fluent readers (National Reading Panel, 2000). Headsprout Early Reading was added into Budlong's kindergarten curriculum to assess its impact on early literacy and reading proficiency.

During the 2004-05 school year, five Budlong Elementary kindergarten teachers used the Headsprout program as a supplement to their core curriculum (Open Court), while one teacher continued only with Open Court and its supplemental materials. The Headsprout program was used in the computer lab approximately 30 minutes per session, 3 to 5 days per week (average lesson duration was 20 minutes). Both groups spent the same total amount of time in reading instruction.

Headsprout early education may be completed in a school year, although for a variety of reasons some students completed fewer than the 80 total lessons. Of the 96 students using the Headsprout program, 12 completed 80 lessons, while 84 students completed 6 to 79 lessons (mean 50, median 52).

In the spring of 2005, assessment data using the Gates-MacGinitie Reading Test (GMRT) were collected and analyzed across these kindergarten groups, as well as for kindergarteners from Parks Huerta Primary Center (a kindergarten-only program located two blocks away from Budlong Elementary, which serves children from the same neighborhood). As there was no significant difference between the performance for the Budlong Elementary and Parks Huerta Primary Center kindergarten students who did not use the Headsprout program, their data were combined for purposes of comparison. The data for Comparison and Headsprout students are shown in Figure 1. The Headsprout group showed a substantial gain over the non-Headsprout comparison group. GMRT Normal Curve Equivalent (NCE) data indicate substantial, statistically significant ($p=.0004$), gains made by kindergarteners who completed some portion of the 80-lesson Headsprout program ($n=96$, $M=35$), when compared to the students not using the Headsprout program ($n=39$, $M=25$).





Gates-MacGinitie Reading Test (GMRT) Reading Total Score for All Students

Kindergarten

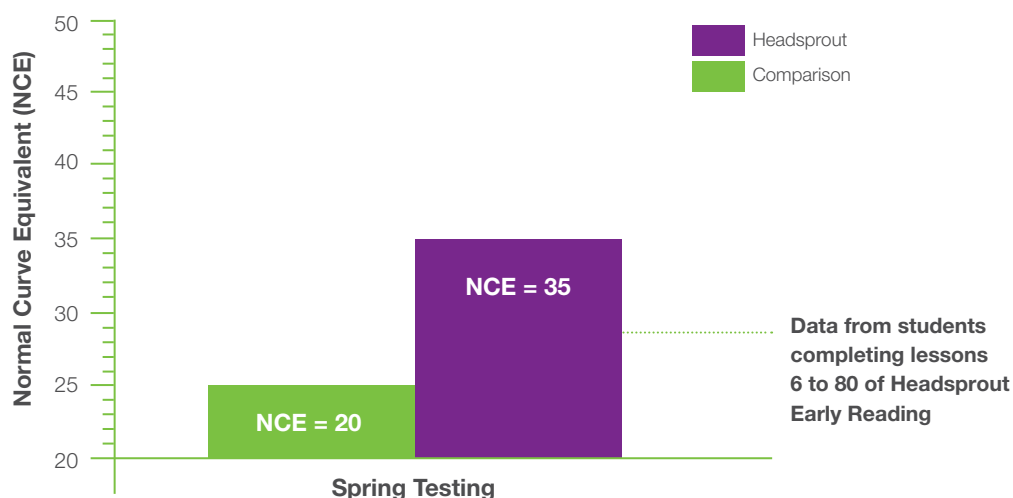


Figure 1. Normal Curve Equivalent (NCE) scores for kindergarten students not using Headsprout (left bar) and students using Headsprout, regardless of highest lesson completed (right bar).

Stronger Outcomes with Program Completion

The NCE scores in Figure 1 (above) indicate that students using the Headsprout program, on average, scored significantly higher than students who did not use the program. Figure 2 (below) shows that even students who only used some of the 80 online episodes obtained higher NCE scores ($n=84$, $M=33.3$) than those who did not use the program ($n=39$, $M=25.2$). Notably, outcomes were especially robust for students who completed all 80 lessons of the Headsprout program ($n=12$, $M=48$). The data show that Headsprout kindergarteners who completed all 80 lessons achieved substantially higher NCE scores.

Gates-MacGinitie Reading Test (GMRT) Reading Total Score for Kindergarteners

Comparison vs. Headsprout Early Reading Completion Groups

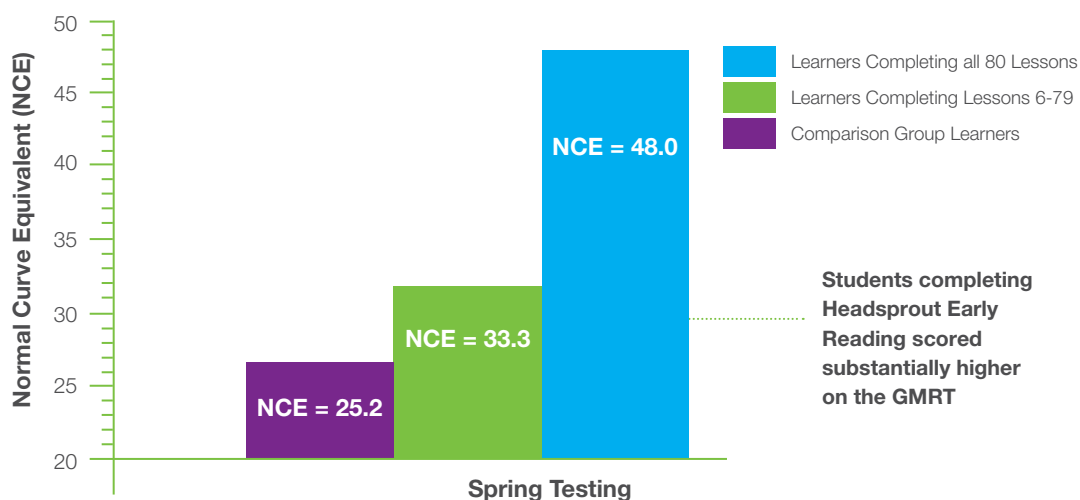


Figure 2. Normal Curve Equivalent (NCE) scores for kindergarteners not using Headsprout Early Reading (left bar), students who completed fewer than 80 lessons (mean 46, range 6-79; middle bar), and students who completed all 80 lessons (right bar).





These data demonstrate the impact that Headsprout Early Reading can have on a student population with a history of underachievement. These data suggest a clear “dose-response” effect: the more Headsprout Early Reading lessons completed, the greater the outcome for students.

“Headsprout really motivates our students about reading. The interactive lessons and printed stories are extremely engaging and really teach critical reading skills. The online lessons adapt so that each child is successful and the program reinforces concepts taught in class. It is easy to use, and the teacher-friendly reports are an educator’s and administrator’s dream.”

REGINA DAVIES

*Title I Coordinator, Budlong Elementary
Los Angeles Unified School District*

Comparison Analysis Shows That First Graders Using the Headsprout program Achieve Significant Reading Outcomes and Move Above National Norms for Reading

Headsprout Early Reading was added to Budlong’s first-grade curriculum to assess the degree to which the program might impact students’ reading achievement prior to entering second grade.

For the 2004 – 05 school year, four of the school’s first-grade teachers used the Headsprout program to supplement their core curriculum (Open Court), while eight teachers continued with Open Court and its supplements without the Headsprout program. The Headsprout groups used the online program in a computer lab for approximately 30 minutes, 3 to 5 days a week (average lesson duration was 20 minutes). Both groups spent the same total amount of time (2.5 hours per day) in reading and language arts instruction.

Pre-test and post-test data on the Gates-MacGinitie Reading Test (GMRT) were collected and analyzed across all first-grade classrooms. Headsprout Early Reading can be completed within one school year; however, some students completed fewer than the program’s 80 lessons. Of the 70 students using the Headsprout program, 57 completed the 80 lessons, while 13 students completed lessons ranging from 14 to 79 (mean 53, median 59). The data for all Headsprout students are shown in Figure 1. The Headsprout students (n=70, M=45.3) and comparison students (n=102, M=46.3) started the year with similar pre-test scores (p=.568). A two-tailed t-test analysis of post-test data indicates sizeable, statistically significant (p=.037) gains made by first-grade students who completed some portion of the 80-lesson Headsprout program (n=70, M=52.7) when compared to the students not using the program (n=102, M=47).





Gates-MacGinitie Reading Test (GMRT) Reading Total NCE Score First Graders

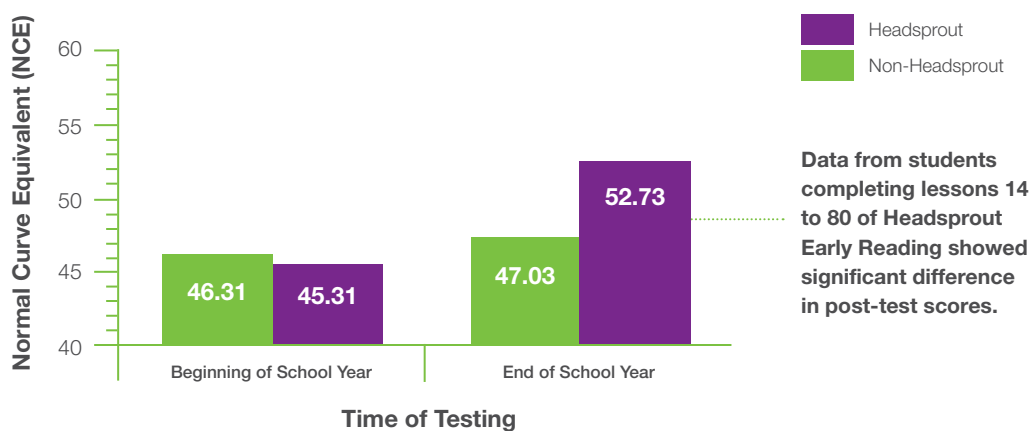


Figure 3. Normal Curve Equivalent (NCE) scores for first graders not using Headsprout Early Reading (left bar) and all students using Headsprout Early Reading, regardless of lesson completion (right bar). Normal curve equivalent (NCE) scores are used to describe level of achievement in relation to the scores of other students in the same grade and are placed on a scale of 1 to 99. NCE scores are used to show growth over time or for measuring score differences from testing to testing.

Even Greater Gains with Program Completion

Gains were especially robust for students who experienced the full benefit of the Headsprout program's 80 lessons. These Headsprout students ($n=57$, $M=46.8$) and comparison students ($n=102$, $M=46.3$) also started the year with similar pre-test scores ($p=.799$). Post-test data t-test analysis shows substantial, statistically significant ($p=.0005$) gains made by first-grade students who completed all lessons of the 80-lesson Headsprout program ($n=57$, $M=56.9$), when compared to the students ($n=102$, $M=47$) not using the program (see Figure 2).

Normal Curve Equivalent (NCE) scores are used to show growth over time or for measuring score differences from testing to testing. The NCE scores below indicate that students in the comparison group made average, expected gains from pre-test to post-test. Conversely, the NCE scores indicate that the Headsprout students made substantial gains—well beyond expected growth from pre-test to post-test. The Headsprout students scored above national norms as measured by the GMRT.



Gates-MacGinitie Reading Test (GMRT) Reading Total NCE Score for Headsprout Completers

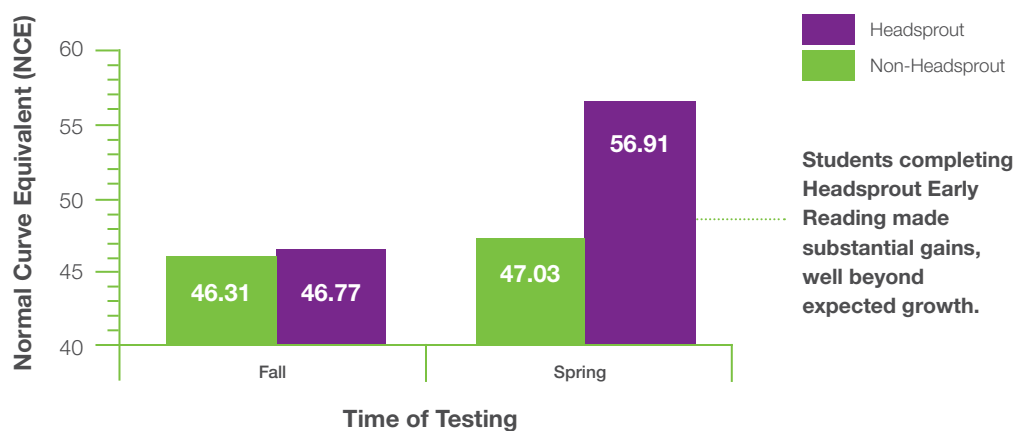


Figure 4. Normal Curve Equivalent (NCE) scores for first graders not using Headsprout Early Reading (left bar) and those students using it who completed all 80 lessons (right bar). NCE scores are used to describe level of achievement in relation to the scores of other students in the same grade and are placed on a scale of 1 to 99. NCE scores are used to show growth over time or for measuring score differences from testing to testing.

These data demonstrate the impact that Headsprout Early Reading can have with a student population that has a history of underachievement. Students in the Headsprout group showed statistically significant better outcomes as compared to students who did not use the program. Those that completed all 80 episodes showed even more substantial gains—scoring above grade level and national norms. These data suggest a clear “dose-response” effect: the more Headsprout Early Reading lessons completed, the greater the outcome for students.



CASE STUDY REFERENCE:

Early Intervention Case Study: Biloxi Public Schools, MS

District: Biloxi Public Schools, MS

City/State: Biloxi, MS

Years: 2003 – 2006

Assessment: District Special Education Referral Rate and Disproportionality Differential

Grades: K-2

Elementary Schools: 7

Demographic Data:

61% Eligible for Free/Reduced Lunch; 5% African American, 8% Asian, 54% Caucasian, 4% Hispanic; High mobility rate due to military base and Hurricane Katrina impact

Objectives

During the building of the district’s Response to Intervention (RtI) program, Headsprout Early Reading was implemented in one school during 2003 and two additional schools the following year. Headsprout Early Reading is now used in all seven elementary schools in Biloxi Public Schools to support the following RtI objectives:

- + Reduce disproportionality (disproportional number of African American students represented in special education).
- + Provide early intervention in Grades 1-2 for students in Tiers 1, 2, and 3 to ensure students at risk for reading failure are provided a solid foundation for reading success.

Implementation Model

Tier 1 – All students receive universal screening. Students falling below a specific cut-score become candidates for Tier 2 intervention, where the Headsprout program is used most frequently. The principal in the lowest SES school chose to use the Headsprout program as a Tier 1 supplement for whole groups in Grade 1 using the school computer lab.

Tier 2 – Students requiring targeted intervention use the Headsprout program 4 – 5 days a week for 30-minute periods. Weekly progress monitoring, using oral fluency measures, tracks student response to the intervention, with teachers expecting to see a response within 6-8 weeks. Fidelity of implementation is also monitored. Instructional intensity may be increased using the companion books and flashcards.

Tier 3 – The small percentage of students requiring intensive intervention use the Headsprout program together with other resources or one-on-one assistance.

“If we use this scientifically-based intervention with integrity and fidelity, student performance will improve. When students show a response, you have clear evidence in the reports. This is key, because we use data to make decisions.”

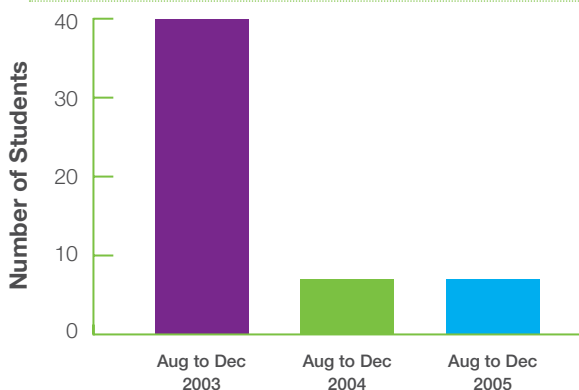
GEORGENE JOHNSON

District Intervention Trainer

Results

In the three pilot schools, the number of students reading at benchmark has substantially increased. The number of students being referred for special education decreased by 79% (from 40 to 7 students). There has also been a 54% decrease in the level of disproportionality, a key goal for implementing RtI in the district.

Reduction in Special Education Referrals for 3 Pilot Schools



Change in Disproportionality Differential

Differential	'03 – '04	'04 – '05	'05 – '06	'04 – '06 Change
	5.05%	4.52%	2.33%	-54%





CASE STUDY REFERENCE:

Early Intervention Case Study: Tangipahoa Parish, LA

District: Tangipahoa Parish School System, LA

Years: 2004 – 2006

School: Amite Elementary School
City/State: Amite, LA
Grades: K-2
Demographic Data: 82% Eligible for Free/Reduced Lunch; 63% African American, 1% Asian, 26% Caucasian

School: Independence Elementary School
City/State: Independence, LA
Grades: K-2
Demographic Data: 91% Eligible for Free/Reduced Lunch; 58% African American, 8% Asian, 34% Caucasian

School: Tucker Elementary School
City/State: Ponchatoula, LA
Grades: 1-2
Demographic Data: 82% eligible for Free/Reduced Lunch; 28% African American, 71% Caucasian

Objectives

During the three-year phase-in period of a Response to Intervention (RtI) plan, Headsprout early reading was initially implemented in Tangipahoa Parish in one school during 2003. Two more schools were added during 2004-2005, and the Headsprout program was expanded to the remaining elementary schools in the district during the following year. The main objectives of the RtI initiative were to:

- + Provide early intervention in primary grades for students at risk for reading failure.
- + Support each school's multi-tier intervention plan.

Implementation Model

Tier 1 – Students in Grades K-1 use the Headsprout program in a whole group lab setting, completing 5 episodes a week during 50-minute sessions.

Tier 2 – Students falling below benchmark goals use the Headsprout program an additional 1-2 times a week for 30-minute sessions. Teachers use automated Headsprout reports to track response to the intervention and progress.

Tier 3 – Students requiring intensive intervention use the Headsprout program together with other print resources and tutoring.

“ Headsprout is an important part of our RtI program. We are successfully moving kids from the ‘Intensive’ category to ‘Strategic’ to ‘Benchmark’...the teachers believe in it and the kids just love it.”

REGINA ROBERTS
Reading Intervention Coordinator

Results

Data indicate overall gains of 14% and 15% in oral reading fluency in grades 1-2. After using the Headsprout program, the number of students reading at or above grade-level benchmark goals increased dramatically, resulting in a significant decrease in the number of students referred to, evaluated for, or requiring special education services.

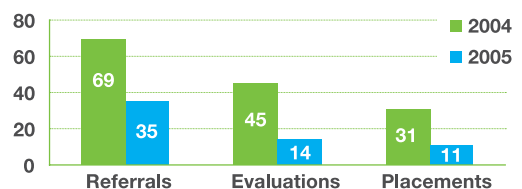
First Grade (Spring) – Average Median Oral Reading Fluency (STEEP Words Read Correct / Min.)

	2004	2005	2006	'05-'06 Change
Amite		58	56	-3%
Independence	11	23	48	+109%
Tucker		60	64	+7%
Average				+38%

Second Grade (Spring) – Average Median Oral Reading Fluency

	2004	2005	2006	'05-'06 Change
Amite		95	112	+18%
Independence	43	67	85	+27%
Tucker		95	105	+11%
Average				+19%

Reduction in Special Education Referrals, Evaluations, Placements





CASE STUDY REFERENCE:

Vail Unified School District, Vail, Arizona

Amanda M. VanDerHeyden, Ph.D.

Researcher and Consultant, Vail Unified School District

Vail Unified School District, AZ

Elementary Schools: 6

District Enrollment: 5606

(73% Caucasian, 19% Hispanic or Latino, 5% African American, 3% Asian/American Indian)

One of the challenges faced by administrators in school systems is figuring out how to quickly bring evidence-based practice into the classrooms. The use of evidence-based practice is critical because it helps us to more effectively use our resources and, most importantly, achieve better outcomes for the children in our care.

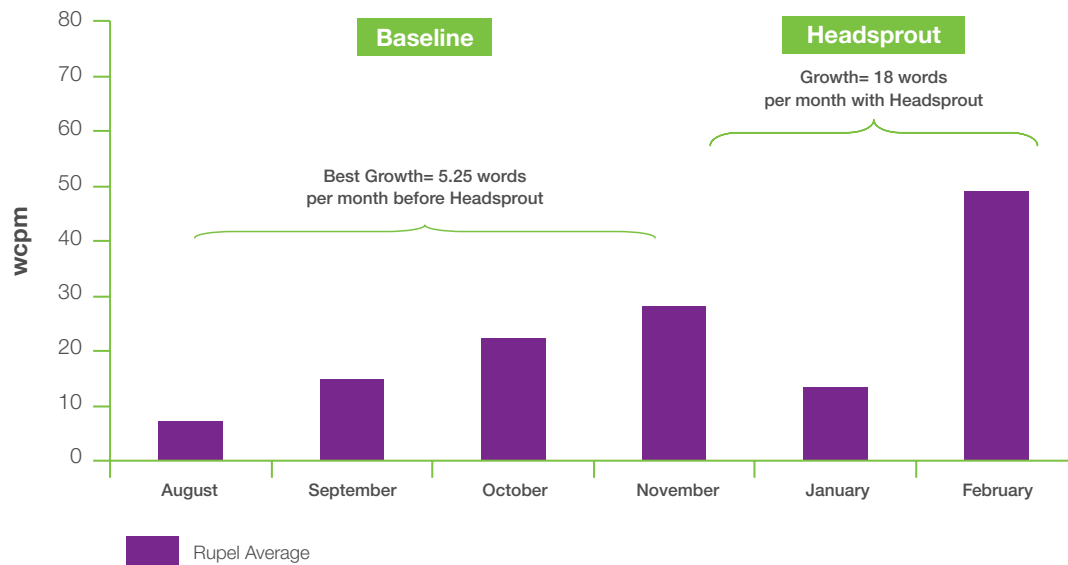
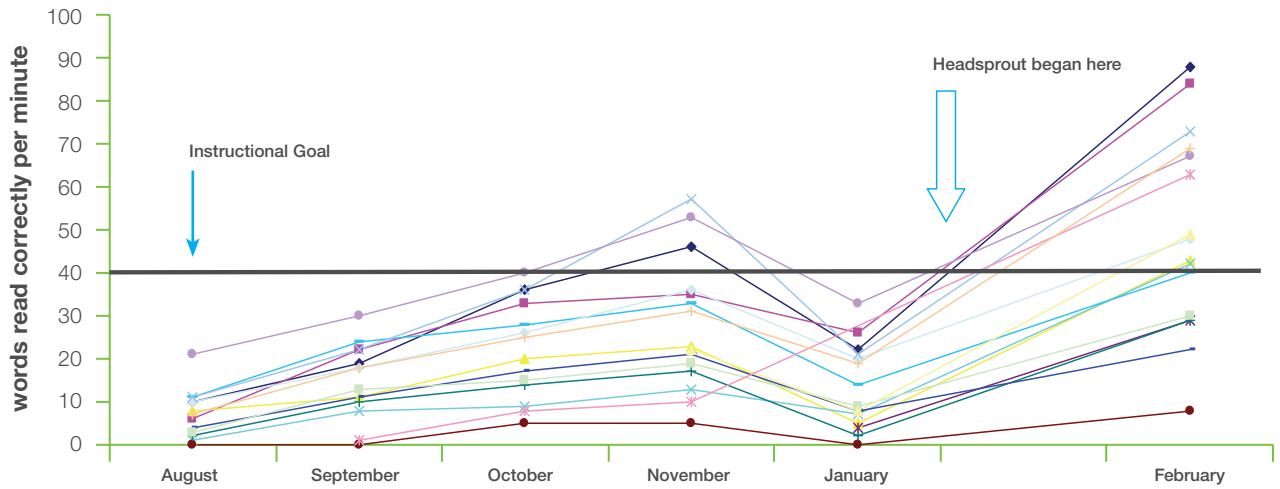
I am most impressed by the Headsprout Early Reading model for the following reasons. Headsprout Early Reading includes many of the components found to improve child literacy outcomes (early intervention in decoding and comprehension and ongoing progress monitoring to allow for appropriate sequencing of lessons, and effective consultation and technical assistance from the Headsprout team). However, the Headsprout program is not cumbersome. The decision rules and instructional strategies have been specified, empirically tested, and subjected to the rigors of peer review through submissions to scholarly journals. Effective introduction and training procedures are planned to help schools begin the program as seamlessly as possible. All needed materials are available to us. Most critically, the Headsprout program is parsimonious. My favorite aspect of this model is that it allows teachers and principals to embrace and take charge of reading intervention in their schools in a positive way. Thus, teams become focused on solving problems, and outcomes for our children are enhanced!

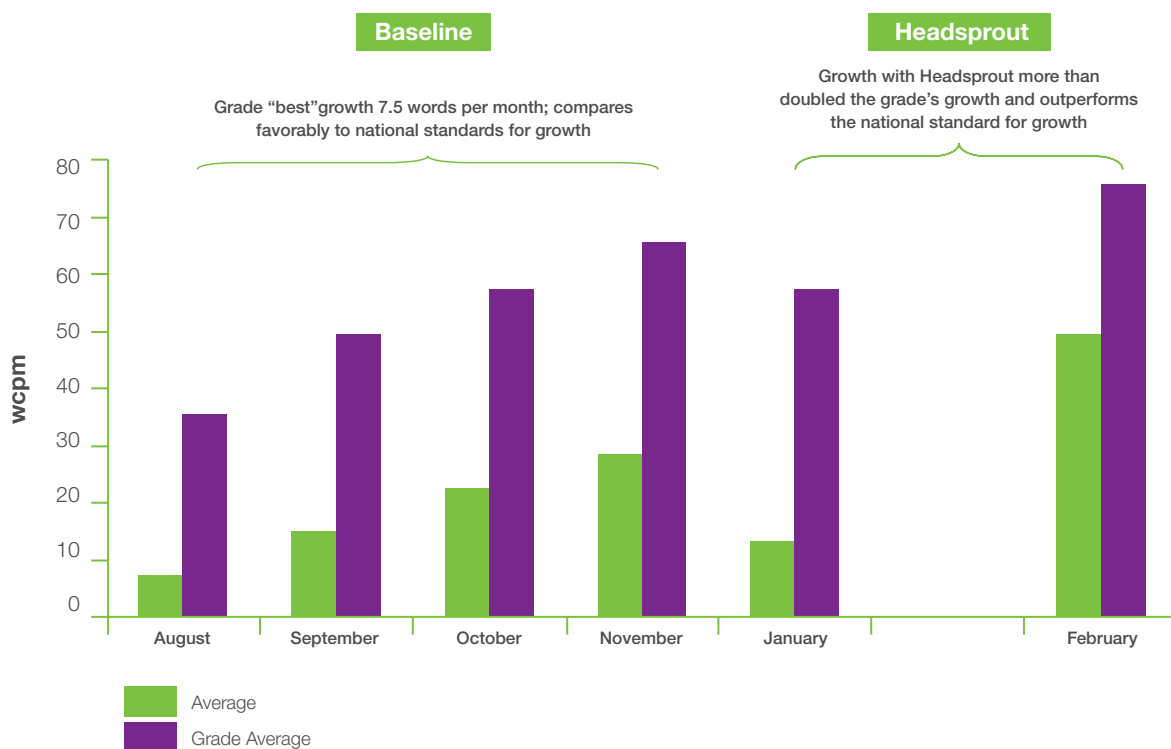
Our district used Headsprout Early Reading in 2003-2004 in five elementary schools. Based on the results, our district decided to expand the number of lessons purchased for each student and to make the program available to all kindergarten and first-grade children at risk for poor reading outcomes. Below is a graph showing the results obtained in one first-grade classroom. This classroom was a transitional class and children had been identified for this class based upon weak early literacy skills. Each line reflects a child's growth in words read correctly per minute (WC/Min) on monthly curriculum-based measurement probes used to monitor progress at all grade levels. In this particular class, growth was increased 300%.





First-Grade Class





The stakes are difficult to understate, given that the majority of children who do not learn to read by nine years of age will likely never become proficient readers (Lyon, 1998). The Reading First Panel has recognized the importance of early identification; provision of early, effective intervention; and use of data for progress monitoring and decision-making. Headsprout Early Reading as a program is consistent with the recommendations of the Reading First Panel and body of empirical research related to effective reading instruction (National Reading Panel, 2001).

There is an urgent need for programs that bring evidence-based practices into the schools. I believe that Headsprout Early Reading accomplishes this important objective.

Dr. Amanda VanDerHeyden





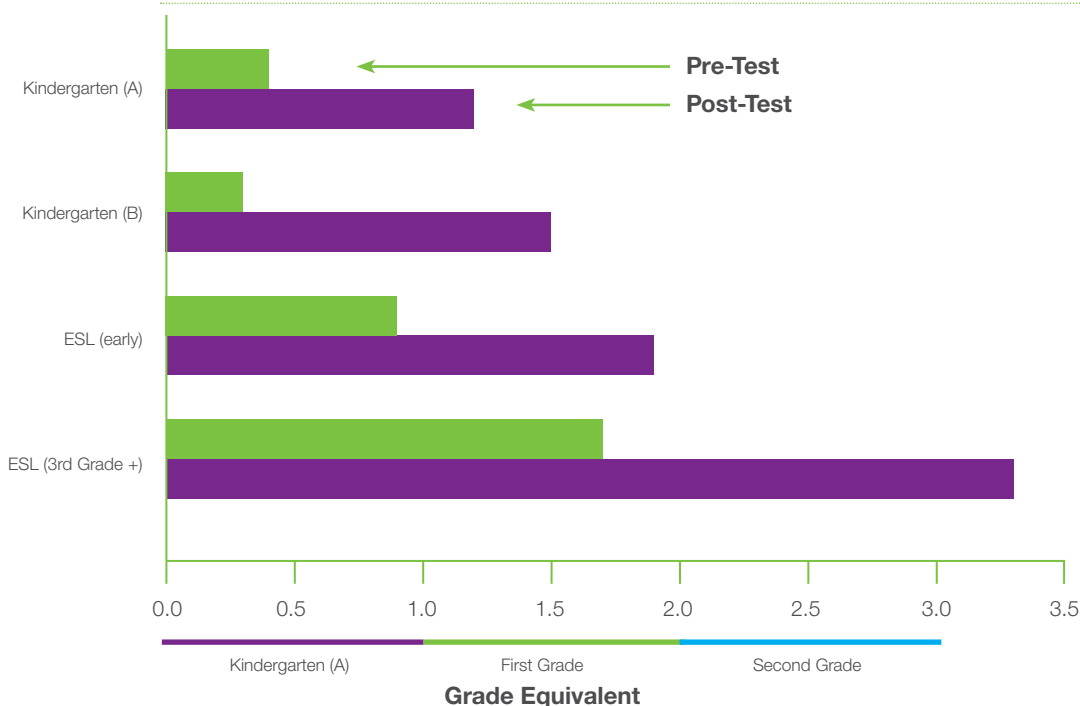
SECTION 2:

Additional Evidence

Formative Evaluation of Program Effects

Title I Elementary School—Seattle, WA Headsprout Early Reading (Episodes 1–40)

Woodcock Johnson Letter-Word Identification Subtest



Participants:

Kindergarten Class 1 – Displayed as Kindergarten (A)

Kindergarten Class 2 – Displayed as Kindergarten (B)

K-2nd English as a Second Language students – Displayed as ESL (early)

3rd-5th English as a Second Language students – Displayed as ESL (3rd Grade +)

Setting:

Title I, Publicly Funded, K-5 Elementary School in Seattle, WA

Over 90% of students receive free or reduced-price lunch

Reading Program:

Headsprout Early Reading (Episodes 1 - 40)

Accessed in the school computer lab 1–2 times per week and monitored by the classroom teachers or aides, and the computer lab teacher. Professional development consisted of a brief overview of the program and occasional visits to the lab during Headsprout sessions.

Assessment:

Woodcock Johnson III Tests of Achievement – Letter-Word Identification Subtest
Administered in January and May of the 2003–04 school year.

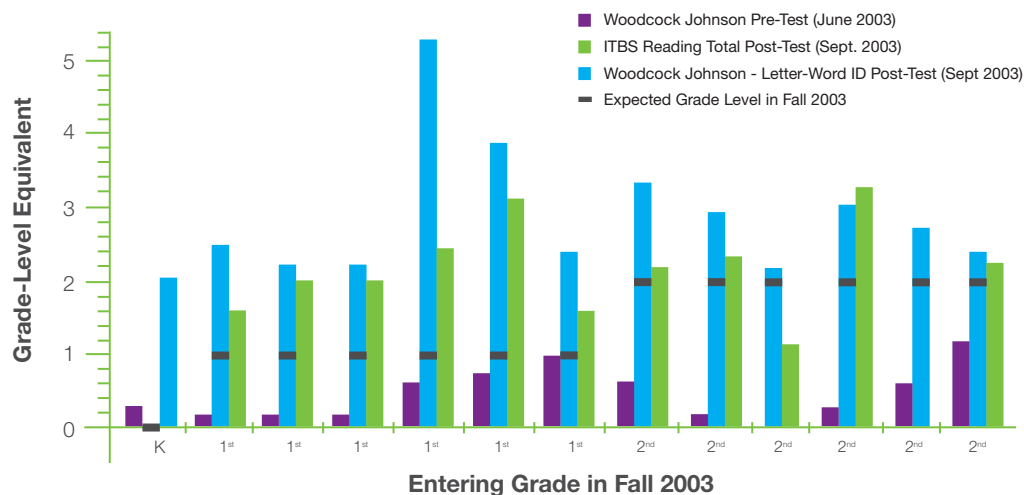
Results:

Students, on average, showed a gain of 1.15 grade levels in only 4 months of use.





Learners Using Headsprout at Home – Summer 2003



Participants:

13 learners, ages four, five, and six, with and without prior school experience

Setting:

Learners used Headsprout Early Reading in their homes, under parental supervision, at least 5 times per week.

Learners did not attend any academic program over the summer while using the Headsprout program.

Reading Program:

Headsprout Early Reading was used by the learners over the summer of 2003.

No special training other than information available on the website given to the parents.

Assessment:

Woodcock Johnson III Tests of Achievement – Letter-Word Identification Subtest

Iowa Test of Basic Skills (reading subtests)

Administered in late spring and early fall of 2003

Results:

Pre-Test: 11 of the 13 learners scored below their grade level in the late spring.

Post-Test: Following summer use of the Headsprout program, all learners scored above grade level, and 12 of the 13 showed substantial growth, with scores well beyond expected grade level.

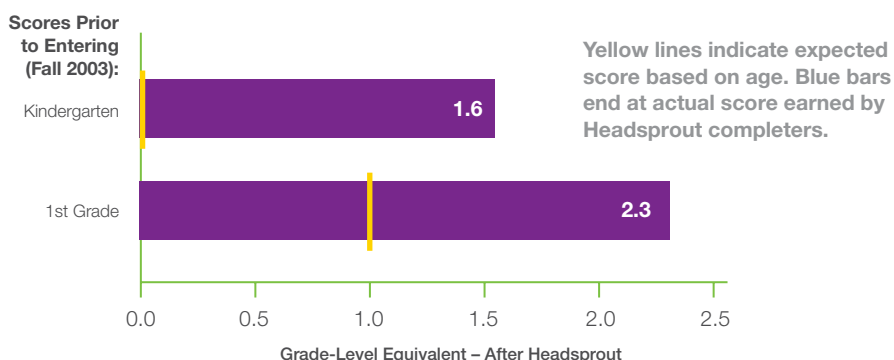




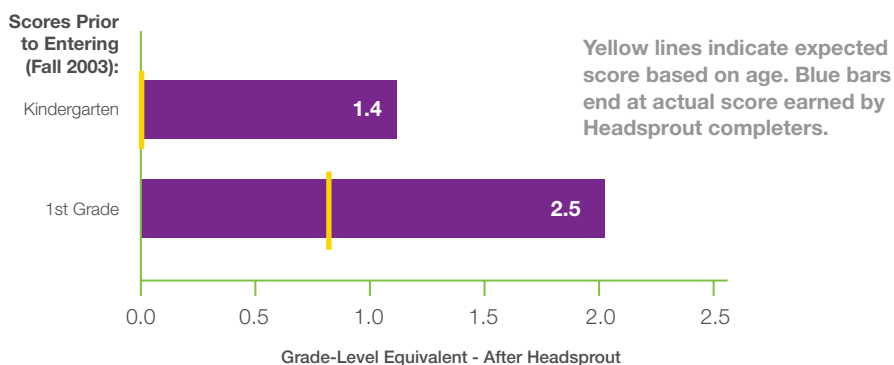
Learner Standardized Test Scores After Summer Usage of Headsprout Early Reading

All 80 episodes completed and Sprout Stories read

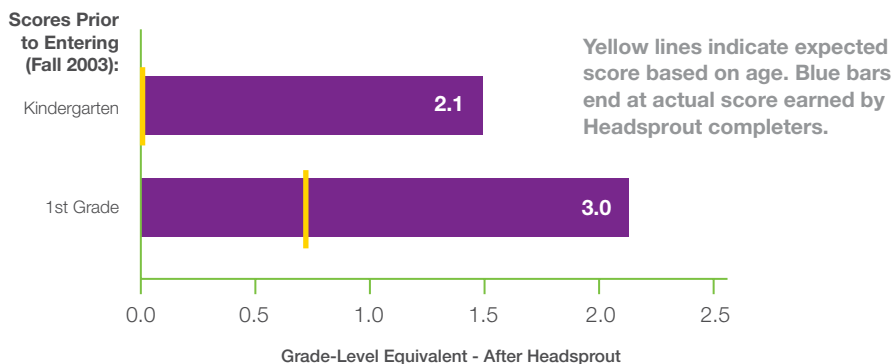
HEADSPROUT EARLY READING (EPISODES 1-80) Iowa Test of Basic Skills: Reading Total – Grade Equivalent Learners Who Completed the Program in Summer 2003



HEADSPROUT EARLY READING (EPISODES 1-80) Iowa Test of Basic Skills: Word Analysis – Grade Equivalent Learners Who Completed the Program in Summer 2003



HEADSPROUT EARLY READING (EPISODES 1-80) Woodcock-Johnson Word Identification Subtest Learners Who Completed the Program in Summer 2003



All learners demonstrated substantial increases over expected skill level (orange bar on graph) for their chronological age, across nationally recognized measures of reading ability.

Learners came from a range of ethnic back-grounds, family situations, and income levels.

Learners used Headsprout Early Reading at home or in our user test lab in Seattle, WA.

FOLLOW-UP: Parental reports indicate learners are at the top of their class in reading, and teachers recognize the learners' higher-than-expected reading abilities.



Headsprout is a K-5 supplemental program that ensures reading success for every child. The program takes a non-reader or beginning reader up to mid-2nd-grade reading skills in less than 30 hours of individualized online instruction.

To learn more about Headsprout visit [Headsprout.com](https://www.headsprout.com) or call 866.889.3729.



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