

# Results Count

## Outcome Data and Case Studies



# “Results Count”

## Case Studies

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## Case Study: 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% White)

Percent of students receiving free or reduced-price lunch: 70%

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 P.S. 106, 100% of the students are on free or reduced-price lunch, and typically 70% of the 4th Grade students have not demonstrated reading proficiency. In the randomized control experiment, half the Kindergarten and First Grade classes used Headsprout, while the other half continued their typical curriculum. Both groups received 180 minutes of reading instruction per day, with the experimental group including *Headsprout Early Reading* in their literacy instruction 3 to 5 days a week.

Initial outcome data (measured across two different standardized tests) indicate statistically significant, 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 Headsprout Early Reading, when compared to students not using Headsprout.

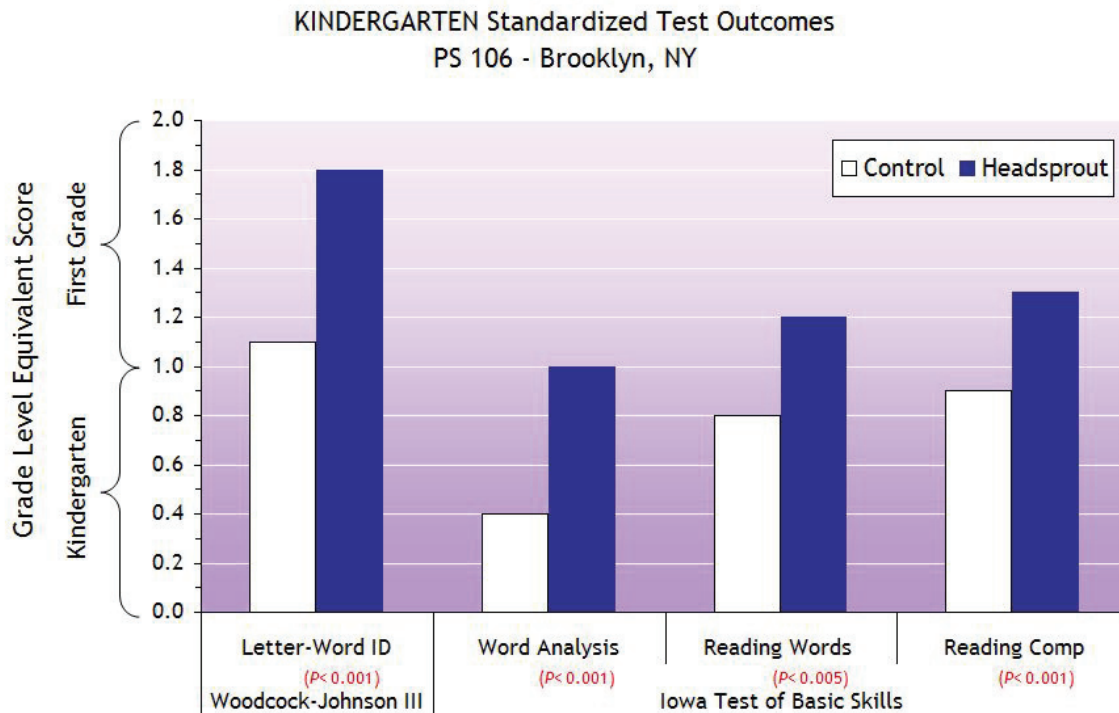


Figure 1: Mean standardized test outcomes scores for treatment (completing or nearly completing Headsprout, dark bars) and control (no Headsprout, light bars) Kindergarten students. All outcome differences (increased grade equivalent scores using Headsprout) are significantly significant (p. values are indicated beneath the subtests).

## Case Study: PS 106 NYC, cont.

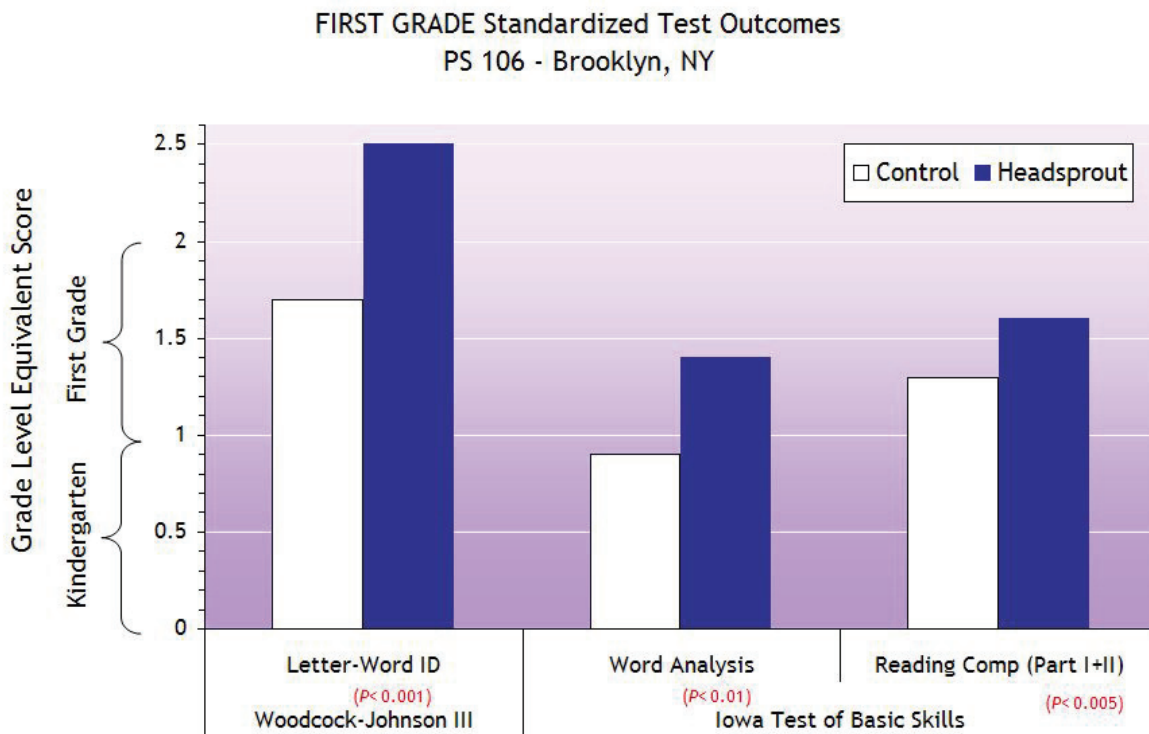


Figure 2: Mean standardized test outcomes scores for treatment (completing or nearly completing Headsprout, dark bars) and control (no Headsprout, light bars) First Grade students. All outcome differences (increased grade equivalent scores using Headsprout) are significantly significant (p. values are indicated beneath the subtests).

The data from this pilot indicate statistically significant, substantial differences between students who used the Headsprout program as compared to peers not using Headsprout. Due to the outstanding success of the initial outcome data (measured across two different standardized tests) PS 106 purchased Headsprout Early Reading for all its Kindergarten and First Grade students and some intervention, special education, and ELL students for 2004-05, and 2005-06.

## Case Study: Budlong Elem., Los Angeles Unified School District

### Kindergarteners Using *Headsprout® Early Reading* Achieve Significant Reading Outcomes

	<b>Budlong Avenue Elementary School</b>	<b>Parks Huerta Primary Center</b>
Grades:	K-5	Kindergarten
Enrollment:	1305 (74% Hispanic/Latino; 26% African American)	116 (78% Hispanic/Latino; 22% African American)
Free/reduced- lunch:	89%	97%

Historically, less 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, a number of Budlong Elementary Kindergarten teachers used *Headsprout Early Reading* as a supplement to their core curriculum (Open Court®). Five teachers used Headsprout, while one teacher continued with Open Court and its supplements without Headsprout. The Headsprout groups accessed the online program in an Apple computer lab for approximately 30 minutes, 3 to 5 days a week, with an average lesson taking 20 minutes. Both groups spent the same total time in reading instruction. In addition, data from students at the Parks Huerta Primary Center are used for comparison. Parks Huerta is a Kindergarten-only program, located only two blocks away from Budlong Elementary and serving children from the same neighborhood.

*Headsprout Early Reading* may be completed in one year, although for a variety of reasons, some students completed fewer than 80 lessons. Of the 96 students using Headsprout, 12 completed the 80 lessons, while 84 students completed lessons ranging from 6 to 79 (overall 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 there was no significant difference between the performance for the Budlong Elementary and Parks Huerta Primary Center Kindergarten students who did not use *Headsprout Early Reading*, their data were combined for purposes of comparison. The data for these students and all Headsprout learners are shown in Figure 1. The Headsprout group shows 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 ( $n=39$ ,  $M=25$ ), not using Headsprout.

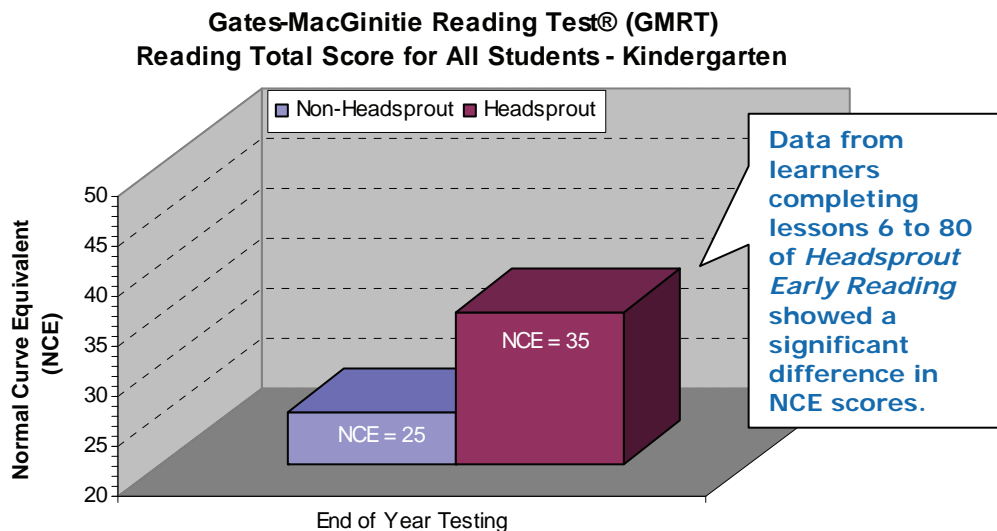


Figure 1. Normal Curve Equivalent (NCE) scores for Kindergarten Students not using Headsprout (left bar) and students using Headsprout, regardless of lesson completion (right bar).

## Case Study: Budlong, LAUSD. Kindergarten, cont.

### Stronger Outcomes with Program Completion

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

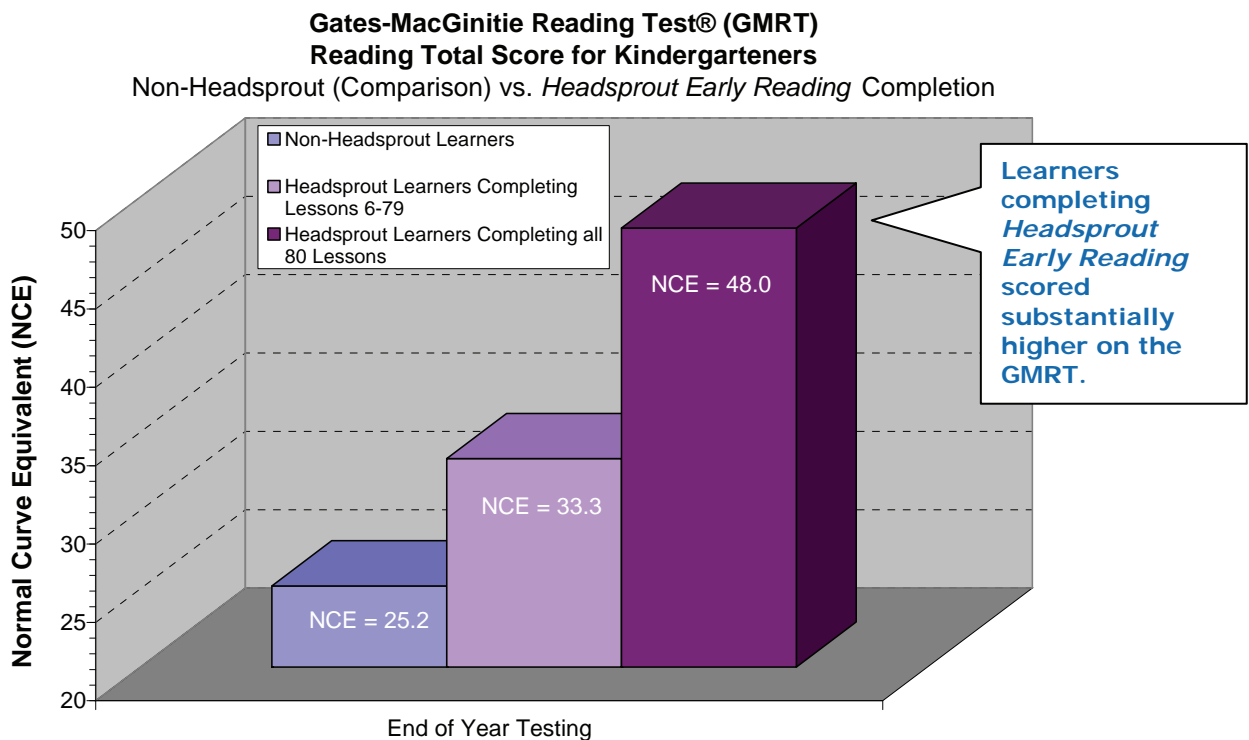


Figure 2. Normal Curve Equivalent (NCE) scores for Kindergarteners not using Headsprout (left bar), students who completed fewer than 80 lessons (mean 46, range 6-79; middle bar) and students who completed all 80 lessons (right bar).

These data clearly demonstrate the impact *Headsprout Early Reading* can have with a student population that has a history of underachievement. These data suggest a clear “dose–response” effect: the more Headsprout lessons completed, the better 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

## Case Study: Budlong Elem., Los Angeles Unified School District

Comparison Analysis Shows First Graders Using *Headsprout® Early Reading* Achieve Significant Reading Outcomes and Move Above National Norms for Reading

### Budlong Avenue Elementary School, CA

Grades: K-5

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

Percent of students receiving free or reduced-price lunch: 89%

Historically, less 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 to Budlong's First Grade curriculum to assess the degree to which the program might impact reading achievement prior to entering Second Grade.

For the 2004-05 school year, a number of the school's First Grade teachers used *Headsprout Early Reading®* to supplement their core curriculum (Open Court®). Four teachers used Headsprout, while eight teachers continued with Open Court and its supplements without Headsprout. The Headsprout groups accessed the online program in an Apple computer lab for approximately 30 minutes, 3 to 5 days a week, with an average lesson taking 20 minutes. Both groups spent the same total 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 is designed to be easily completed in one year, although for a variety of reasons, some students completed fewer than the program's 80 lessons. Of the 70 students using Headsprout, 57 completed the 80 lessons, while 13 students completed lessons ranging from 14 to 79 (mean 53, median 59). The data for all Headsprout learners are shown in Figure 1. The Headsprout learners (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 (n=102, M=47.0) not using Headsprout.

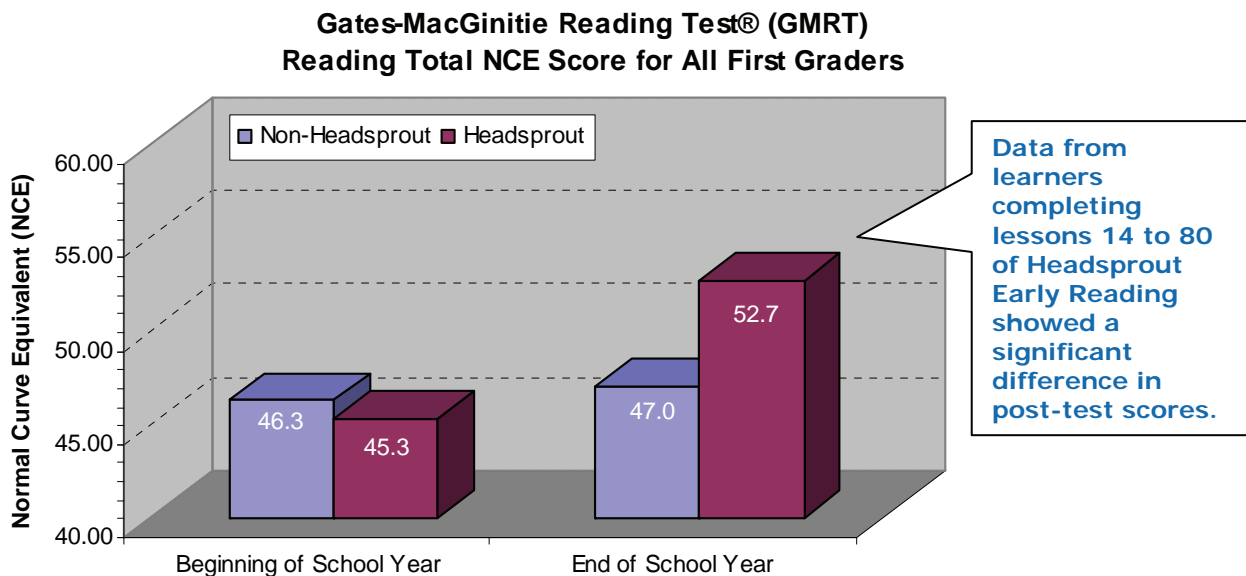


Figure 1: Normal Curve Equivalent (NCE) scores for First Graders not using Headsprout (light bar) and all students using Headsprout, regardless of lesson completion (dark bar). Normal curve equivalent (NCE) scores are used to describe level of achievement in relation to the scores of other students in 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.

## Case Study: Budlong, LAUSD. First Grade, cont.

### Even Greater Gains with Program Completion

Gains were especially robust for students who experienced the full benefit of *Headsprout Early Reading's* 80 lessons. These Headsprout learners (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 Headsprout (see Figure 2).

Normal curve equivalent<sup>ii</sup> (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 learners made substantial gains--well beyond expected growth from pre-test to post-test. The **Headsprout users scored above national norms** as measured by the GMRT.

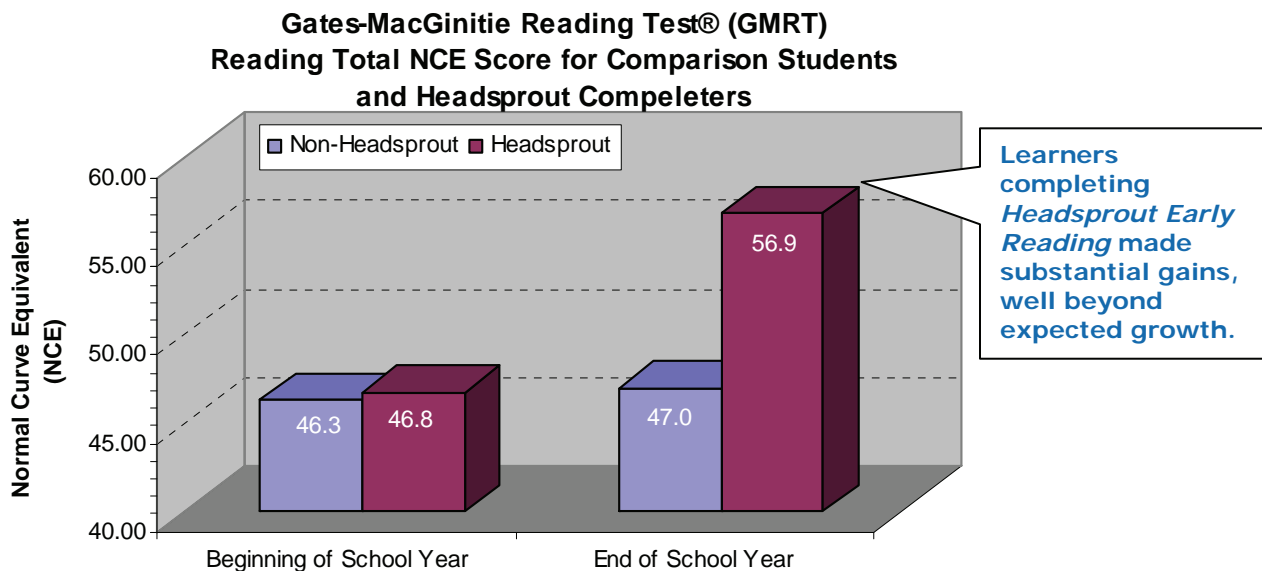


Figure 2: Normal Curve Equivalent<sup>ii</sup> (NCE) scores for First Graders not using Headsprout (light bar) and those students using Headsprout and completed all 80 lessons (dark bar). Normal curve equivalent (NCE) scores are used to describe level of achievement in relation to the scores of other 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.

These data clearly demonstrate the impact 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 Headsprout. Those that completed all 80 episodes showed even more substantial gains—with the group scoring above grade level and national norms. These data suggest a clear “dose–response” effect: the more Headsprout lessons completed, the better 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

## Case Study: NY Students Reading Above Grade Level with Headsprout

### A Private Elementary School, NY

Grades: PK-8

A Private Elementary School in NY, serving low-income families, began using Headsprout with all their First Graders in the 2002-2003 school year. They continued to use *Headsprout Early Reading* 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 last four school years are presented below. Prior to using Headsprout, ITBS student reading scores were below grade level. After using Headsprout, first grade students have scored well above grade level.

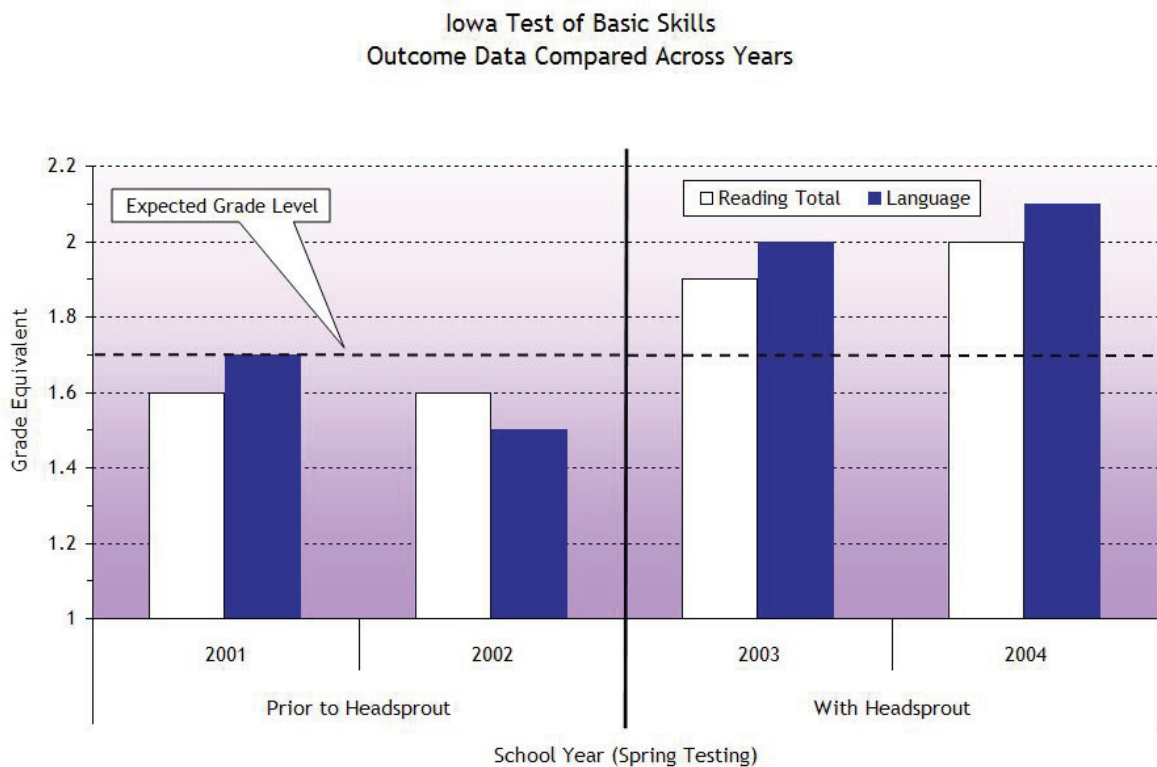


Figure 1. Grade level equivalent scores for the reading and language subtests of the ITBS, for first graders in New York. Testing was conducted in April of the school year. Expected grade level at time of testing: 1.7

## Case Study Reference: Vail Unified School District, Vail, Arizona

Amanda M. VanDerHeyden, Ph.D.  
Researcher and Consultant, Vail Unified School District

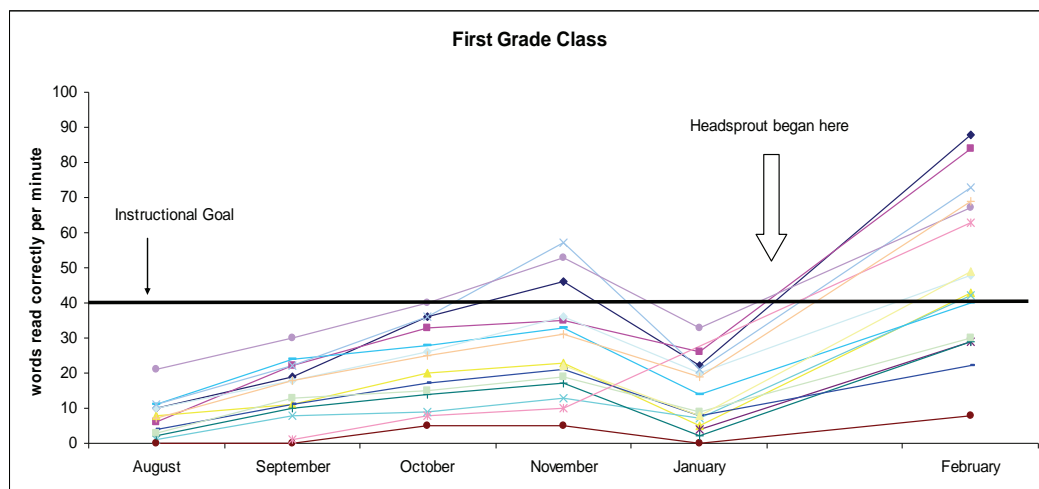
### Vail Unified School District, AZ

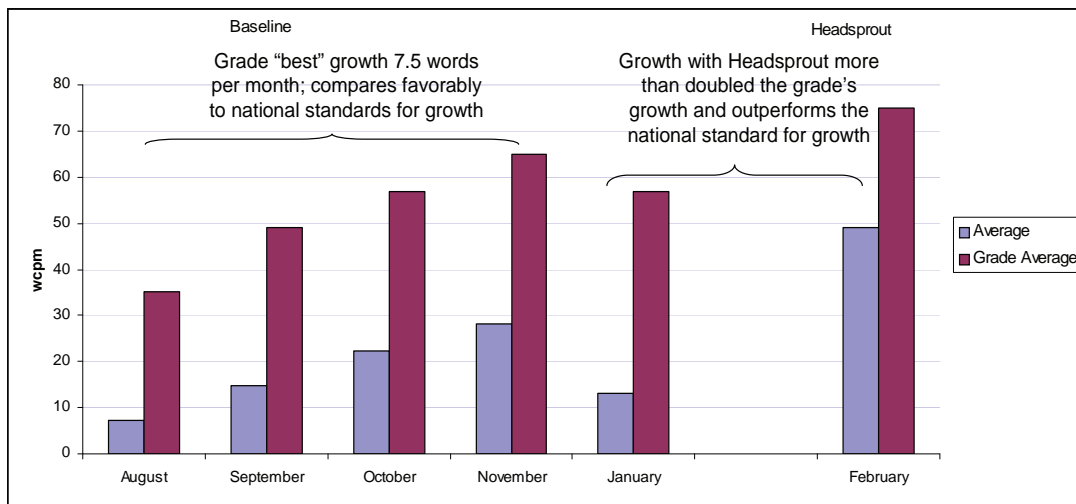
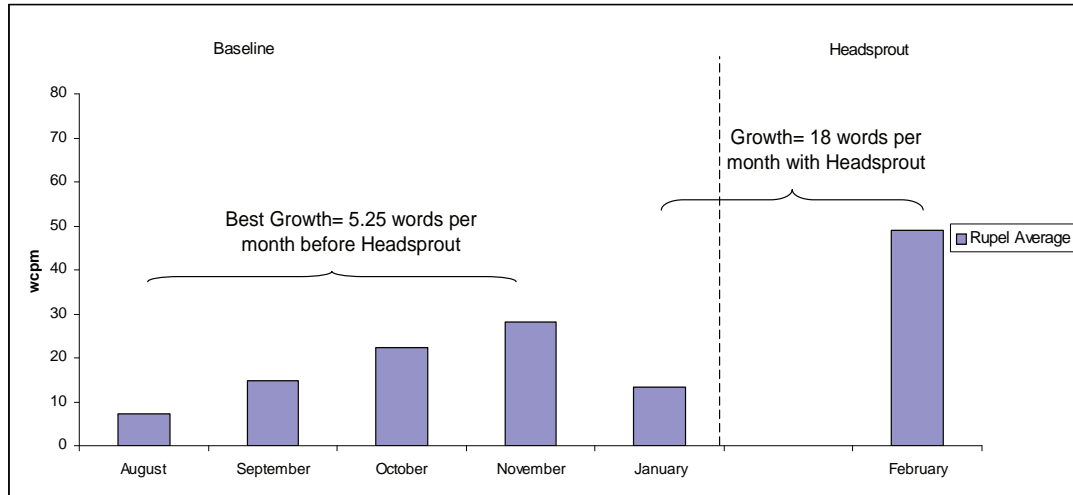
Elementary Schools: 6  
District Enrollment: 5606 (73% White; 19% Hispanic or Latino; 5% African American; 3% Asian/American Indian)

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 model for the following reasons. Headsprout 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, Headsprout 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, Headsprout 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 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%.



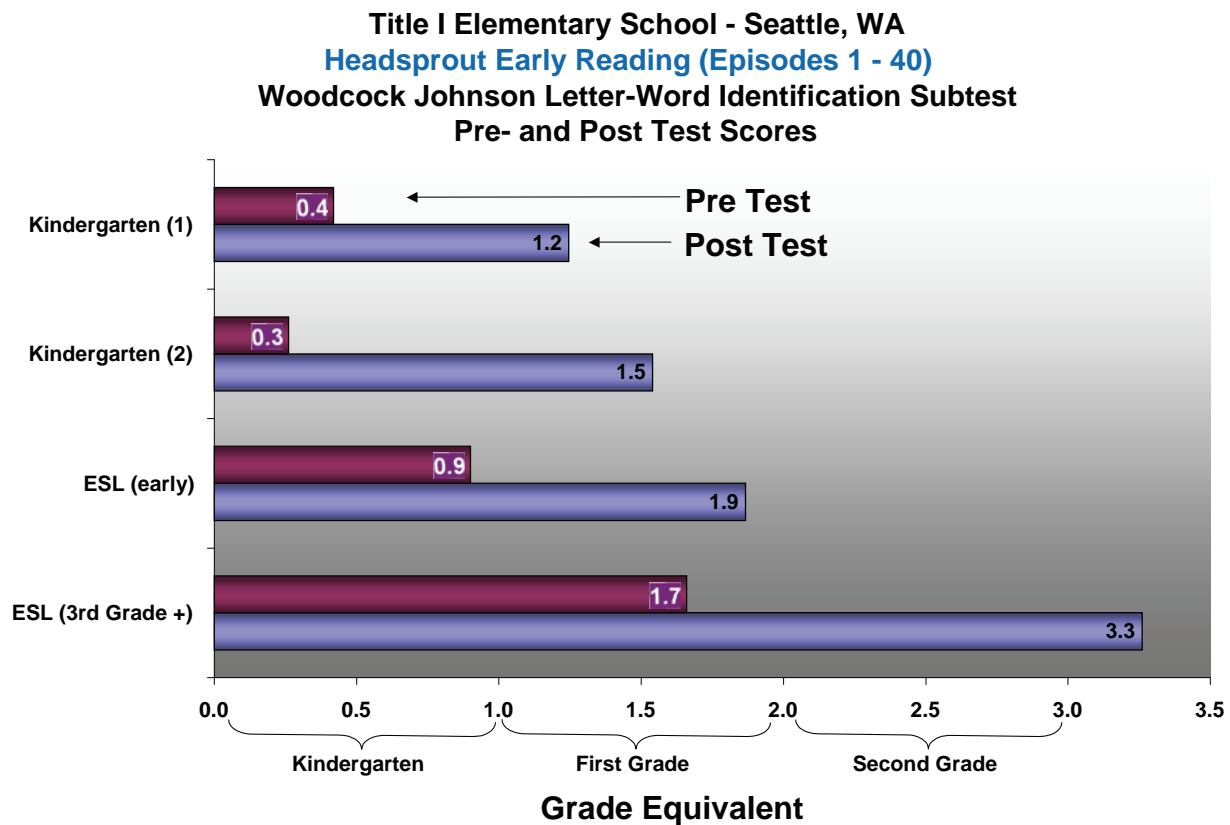


The stakes are difficult to understate given that the majority of children who do not learn to read by nine years of age will likely never become proficient readers (Lyon, 1998). The Reading First Panel has recognized the importance of early identification, provision of early, effective intervention, and use of data for progress monitoring and decision-making. Headsprout 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 accomplishes this important objective.

Dr. Amanda VanDerHeyden

## Case Studies: Formative Evaluation of Program Effects



### Participants

Kindergarten (Class 1 and 2), K-2<sup>nd</sup>, and 3<sup>rd</sup>-5<sup>th</sup> Grade English as a Second Language students.

### Setting

Title I, Publicly Funded, K-5 Elementary School in Seattle, WA, where over 90% of students receive free or reduced-price lunch.

### Assessment:

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

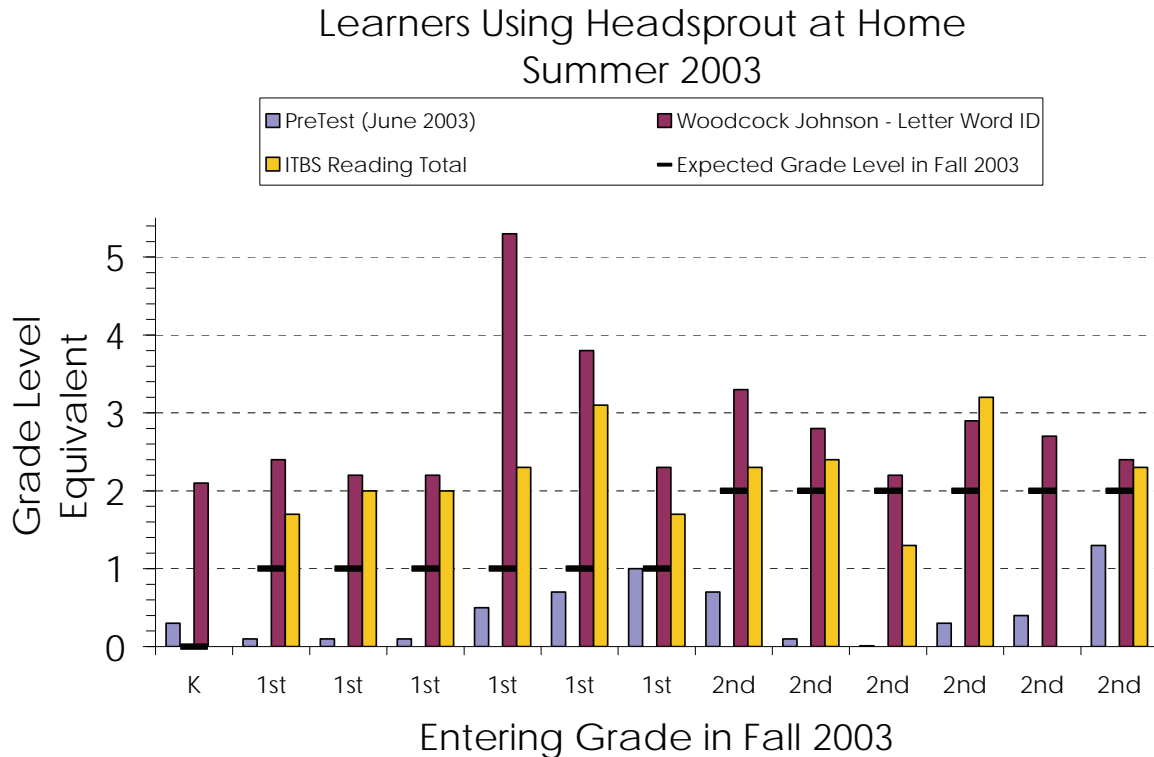
### Reading Program:

*Headsprout Early Reading*<sup>™</sup> (Episodes 1-40) was accessed in the school computer lab 1-2 times per week and overseen 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.

### Results:

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

## Case Studies: Formative Evaluation of Program Effects, cont.



### Participants

Four, five and six-year-old learners with and without prior school experience.

### Setting

Learners used the program in their homes, under parental supervision, at least 5 times per week. The learners did not attend any academic program over the summer while using Headsprout.

### Assessment:

Woodcock Johnson III Tests of Achievement - Letter Word Identification Subtest and the Iowa Test of Basic Skills (reading subtests), administered in late spring and early fall of 2003.

### 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.

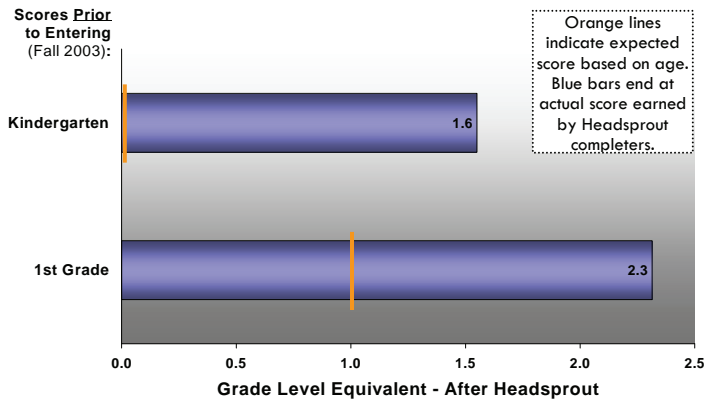
### Results:

Eleven of the 13 learners scored below their grade level in the late spring. Following summer use of Headsprout, all learners scored above grade level, with 12 of the 13 showing substantial growth with scores well beyond expected grade level.

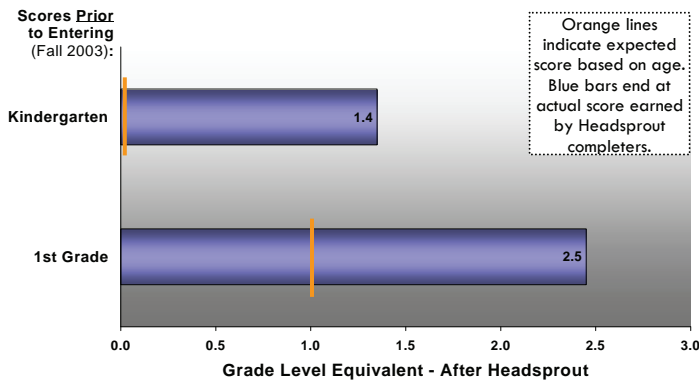
## Case Studies: Formative Evaluation of Program Effects, cont.

### Learner Standardized Test Scores After Summer Usage of *Headsprout® Early Reading* (all 80 episodes completed and *Sprout Stories™* read)

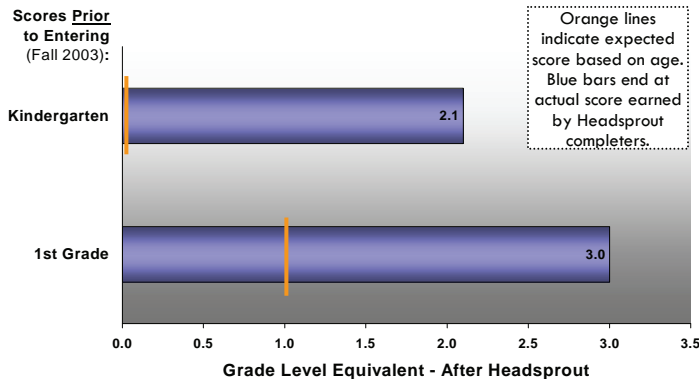
**Headsprout Early Reading (Episodes 1 - 80)**  
**Iowa Test of Basic Skills: Reading Total - Grade Equivalent**  
Learners Who Completed the Program in Summer 2003



**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 backgrounds, family situations, and income levels.

Learners used Headsprout 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®

**Headsprout Early Reading** is a K-2 supplemental program that ensures reading success for every child, **guaranteed**. The program takes a non-reader or beginning reader up to mid-2<sup>nd</sup>-Grade reading skills in less than 30 hours of individualized online instruction. Eighty printed stories (including Chapter Books) and automated performance reports accompany the program.

## Headsprout Guarantee

Headsprout guarantees that every Kindergarten or 1st-Grade student who completes Headsprout Early Reading will be reading at grade level.

Headsprout will refund the price paid for any K-1 student who completes the program but is not reading at grade level.



[www.Headsprout.com](http://www.Headsprout.com)

800.401.5062