In 2014, Learning A-Z 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.
Section 1: Case Studies

New York City Public Schools
Kindergarteners at PS 106 in Brooklyn, NY
First Graders at PS 106 in Brooklyn, NY

New York, NY
Kindergarteners at a private school in New York, NY

Los Angeles Unified School District, California
Kindergarteners at Budlong Elementary in Los Angeles, CA

Biloxi Public Schools, Mississippi
Kindergarteners — Second Graders in Biloxi, MS

Tangipahoa Parish, Louisiana
Kindergarteners — Second Graders in Tangipahoa Parish, LA

Vail Unified School District, Arizona
First Graders in the Vail School District, AZ

Section 2: Additional Evidence

Formative Evaluations of Program Effects
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).
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

**CASE STUDY REFERENCE:**

Iowa Test of Basic Skills
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: 1,305 (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 kindergarten students 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, 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 kindergartners who completed a 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).

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 kindergartners 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 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).

Figure 2. Normal Curve Equivalent (NCE) scores for kindergarten students completing lessons 6 to 80 of Headsprout Early Reading.
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) 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=56.8), 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.

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=56.8), 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.

“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

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=56.8), when compared to the students (n=102, M=47) not using the program (see Figure 2).

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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.

**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.

**Reduction in Special Education Referrals for 3 Pilot Schools**

```
Number of Students

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<th>Aug to Dec 2004</th>
<th>Aug to Dec 2005</th>
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<td>Headsprout</td>
<td>40</td>
<td>30</td>
<td>10</td>
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<tr>
<td>Non-Headsprout</td>
<td>40</td>
<td>30</td>
<td>10</td>
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“...we used 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

**Change in Disproportionality Differential**

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<th>05–06</th>
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<td>4.52%</td>
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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, 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, 7% 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.

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.)

<table>
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<td>Average</td>
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Second Grade (Spring) – Average Median Oral Reading Fluency

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<tr>
<td>Tucker</td>
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<td>105</td>
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<td>+11%</td>
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<tr>
<td>Average</td>
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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 rigorous 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%.
The stakes are difficult to understated, 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

In this section, you’ll find:

Formative Evaluations of Program Effects

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.
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.

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

Scores Prior to Entering (Fall 2003):
Kindergarten: 1.6
1st Grade: 2.3

Grade-Level Equivalent - After Headsprout

Yellow lines indicate expected score based on age. Blue bars end at actual score earned by Headsprout completers.

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

Scores Prior to Entering (Fall 2003):
Kindergarten: 1.4
1st Grade: 2.5

Grade-Level Equivalent - After Headsprout

Yellow lines indicate expected score based on age. Blue bars end at actual score earned by Headsprout completers.

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

Scores Prior to Entering (Fall 2003):
Kindergarten: 2.1
1st Grade: 3.0

Grade-Level Equivalent - After Headsprout

Yellow lines indicate expected score based on age. Blue bars end at actual score earned by Headsprout completers.

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.

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 or call 866.889.3729.