Imagine Learning Evidence of Effectiveness

Imagine Learning is an award-winning English language and literacy software program designed for English learners, struggling readers, students with disabilities, and students in early childhood education. The program is currently being used by students around the world and has shown to be effective in improving students’ literacy achievement. Instruction is individualized based on students’ unique needs, which are assessed by an adaptive placement test. As students progress through the curriculum, the program continually monitors their progress and adjusts instruction, re-teaching concepts or accelerating instruction as needed.

There have been several studies conducted regarding the effectiveness of Imagine Learning. The following summaries reflect the findings of those studies, focusing particularly on the effects of Imagine Learning on students’ standardized test scores. Study summaries include the following schools/districts:

1. Palmdale School District, CA
2. Colorado Department of Education
3. Chula Vista Elementary School District, CA
4. Alsip Hazelgreen School District, IL
5. Washington Elementary School, UT
7. Edison Elementary, UT
8. White Plains School District, NY
9. Miami-Dade County Public Schools, FL
10. King Elementary School, CA
1. A Study of the Effectiveness of Imagine Learning on Student Reaching Achievement (Palmdale School District, CA)

**Study Overview and Design**
The goal of this study was to compare the growth in Reading (English Language Arts) skills between students who used Imagine Learning and comparable students who did not use Imagine Learning.

The design of this study included a treatment and control group with pre and post testing. The treatment group included students in grades 2 through 5 in six schools within a large California school district who used Imagine Learning between the pre and posttest. The control group included students also in grades 2 through 5 in six comparable schools within the district that did not use Imagine Learning. Students in grade 2 were administered the Scantron Performance Series Reading Foundation Assessment and students in grades 3 through 5 were administered the Reading Assessment as the pretest in December 2012 and the posttest in June 2013. Over 800 students were included in the study.

The key research question investigated was: Do students in grades 2 through 5 who use Imagine Learning show greater gains on the Scantron Performance Series Reading Assessments than comparable students in the same district who do not use Imagine Learning?

**About the Outcome Measures**
The Reading Foundation Assessment includes the following domains: vocabulary, text comprehension, phonological awareness, and phonics. The Reading Assessment includes the following domains: vocabulary, long passages, fiction, and non-fiction. The Reading Assessments are vertically scaled to allow for growth comparisons within and across grades. As such, performance data in grades 3 through 5 were combined for analysis across grades. Grade 2 Reading Foundation Assessment data was analyzed separately.

**Results**

**Initial Comparability of Study Groups.** The data supported the initial comparability of the students in the treatment and control groups. The treatment and control groups were within ¼ standard deviations of each other.

**Comparison of Reading Gains.** Analysis of Covariance (ANCOVA) was used to evaluate the difference in Reading posttest scaled score (dependent variable) between the Treatment and Control Groups (independent variable) controlling for the initial Reading ability of the students (covariate). The Scantron pretest scores were used as the covariate to place students in the Treatment Group and Control Group on the same baseline. The comparisons were run separately for students who took the Reading Foundation Assessment (grade 2) and those who took the Reading Assessment (grades 3 – 5).

The chart below shows that students in grade 2 using Imagine Learning showed 36% greater gains in reading than students who did not use the program. Imagine Learning students in grades 3 through 5 showed 65% greater gains in reading than non-users.

For the grade 2 students, the difference in posttest reading comprehension performance between the students who used Imagine Learning (treatment) and those who did not (control) was .15 (effect size). The probability of these differences being due to change was p < .097 (F = 2.783). For the grade 3 – 5 students, the difference was .21 (effect size). The probability of these differences being due to chance was p < 0.001 (F = 16.388).

For more details regarding this study, please contact Imagine Learning for the full report.
2. Colorado Department of Education

Imagine Learning is used as a supplemental tool in the classroom and as an afterschool supplemental educational services (SES) program at dozens of campuses within Denver Public Schools. In 2011, the Colorado Department of Education released an evaluation of SES providers. Imagine Learning was identified as a top technology-based SES program in Colorado based on student improvement rates on the Developmental Reading Assessment (DRA2) and the Colorado Student Assessment Program (CSAP) reading assessment.

Students using Imagine Learning achieved the following on the 2009–10 DRA2:

- Experienced twice the student improvement rate of the control group
- Showed twice the student improvement rate of other SES programs
- Achieved the highest improvement rate of technology-based SES programs in Colorado

**Figure 1.** A comparison of student improvement rates on the DRA2. Students in K–3 using Imagine Learning showed a greater improvement rate than comparison groups.

![DRA2 Percent Improvement](image)

Students using Imagine Learning achieved the following on the 2009–10 CSAP reading test:

- Showed a student improvement rate 26 percent higher than control group students
- Showed a student improvement rate 35 percent higher than students attending other SES programs
- Achieved the highest student improvement rate out of all technology-based SES programs in Colorado

**Figure 2.** A comparison of improvement rates of Colorado students on the CSAP. Students in grades 4–10 using Imagine Learning showed a greater improvement rate than comparison groups.
3. Chula Vista Elementary School District

Imagine Learning is used throughout the Chula Vista Elementary School District. Below is an excerpt of a study conducted in Chula Vista analyzing gains on the English-Language Arts portion of the California Standardized Test (CST). At the time the study was conducted, Imagine Learning was known as Imagine Learning English (ILE).

ILE participants showed greater improvements on the CST than non-ILE controls. Figure 11 illustrates how gain scores compared between the 45 ILE participants and the 114 non-ILE controls. ILE participants’ mean gain score was three times the size of the mean gain score for non-ILE controls (31 vs. 10, respectively). The difference between these means was statistically significant ($t = 4.19, p < .001, DF = 102$). Gain score distributions shared some overlap between ILE participants and non-ILE controls, but the ILE distribution was generally higher.

Figure 3. A comparison of proficiency level increases on the English-Language Arts subtest of the CST. Despite some overlap, the distribution of proficiency level increases of students using Imagine Learning, then known as Imagine Learning English, was higher than the distribution of students who did not use the program.
Figure 4. A comparison of proficiency level increases on the English-Language Arts subtest of the CST. Median proficiency level increase for students using Imagine Learning was one (vs. zero for the students who did not use the program).

4. Alsip Hazelgreen School District - Kindergarten and First Grade Results of the Illinois Snapshot of Early Literacy (ISEL)

In 2007, ClearVue Research, Inc. conducted a formal study of kindergarten and first grade students in the Alsip Hazelgreen School District. The study included 326 students. Student growth was measured with the ISEL (Illinois Snapshot of Early Literacy), a set of standardized, individually administered measures of early literacy development for grades K, 1, and 2. The results of this are presented below.

An additional measure of year-to-year differences validates the increased benefit of Imagine Learning. Kindergarten ISEL pretest to posttest scores from the 2005–06 school year (before Imagine Learning was implemented) had a median improvement of 22 percent compared with the 40 percent growth achieved by Imagine Learning students during the 2006–07 school year (see Figure 5).

Imagine Learning has a gap-narrowing effect. Students selected to receive Imagine Learning were determined as struggling, and most in need of an intervention as evidenced by pre-test scores. However, post-test scores show that this gap is narrowed considerably due to the progress of Imagine Learning students (see Figure 6).

Figure 5. Imagine Learning students in kindergarten more than doubled the progress made by their peers (40% vs. 15%)
Figure 6. Imagine Learning students in first grade doubled the progress made by their peers (30% vs. 15%)

“The results of this study indicate a strong and beneficial effect on student ISEL scores that measure the language and literacy skills being examined by the ISEL assessment. Thus, when Imagine Learning is implemented and administered properly, these results suggest it will provide a learning platform capable of outperforming traditional teaching methods by a substantial margin.” – ClearVue Research, Inc.

5. Washington County School District: Washington Elementary School

Optional Extended Day Kindergarten (OEK) students at Washington Elementary School in Washington County School District who used Imagine Learning saw average gains of 92 points on the district’s kindergarten assessment, which was administered first in August 2010 and again in January 2011. These students used Imagine Learning for 30 minutes a day, four times each week starting in September 2010.

OEK kindergartners who did not use Imagine Learning during this time saw average gains of only 66 points on the district’s kindergarten assessment. The following table and figures illustrate the average gains for OEK kindergartners at Washington Elementary School.
Evidence of Effectiveness: Summary of Studies

Average gains of OEK kindergartners using IL vs. OEK kindergartners not using IL on the Washington County School District’s Assessment at Washington Elementary School

Average scores for OEK kindergartners at Washington Elementary School on the August 2010 and January 2011 Kindergarten Assessments

6. Washington County School District, Utah
Students in grades 3–5 at Washington County School District in St. George, Utah, have shown significant improvement on the English Language Arts Criterion-Referenced Test (ELA CRT) since beginning to use Imagine Learning. The district first implemented Imagine Learning with 828 students in 18 schools during the 2008–2009 school year. A comparison of ELA CRT results for English language learners from the 2007–2008 school year (when students were not using Imagine Learning) and the 2009–2010 school year (when 1,363 students used the program) shows a 10 percent increase in the number of English language learners scoring proficient on the ELA CRT in grades 3–5. Similarly, Imagine Learning users at Washington Elementary School in Washington County School District scored an average of 32 points higher on the Washington County’s Kindergarten Assessment than students who did not use Imagine Learning.
Evidence of Effectiveness: Summary of Studies

**ELA CRT Results at Washington County School District**

ESL Coordinator Randy Richardson compared the percentage of English language learners in the district scoring proficient on the ELA CRT in grades 3–5 before and after the introduction of Imagine Learning. The comparison showed that the percentage of proficient English language learners has increased 16 percent since the introduction of Imagine Learning into the school curriculum. In speaking about the gains of the district’s English language learners, Richardson said, “Imagine Learning has been the key component in helping our English language learners improve their test scores.” The following figure illustrates proficiency of ELL students on the ELA CRT in grades 3–5 from 2003–2011*, on both the state and district levels. Percentages from 2003–2007 represent student performance before Imagine Learning was introduced. Imagine Learning was introduced after the 2007–08 testing, and the ELA CRT was taken in the spring, so results from the 2008–2009 school year reflect the first year of growth after the Imagine Learning implementation.

**Percentages of Washington County School District ELL students scoring proficient on the ELA CRT in grades 3–5 from 2003–2011**

![Graph showing proficiency of ELL students on the ELA CRT in grades 3–5 from 2003–2011.]

*All years denote beginning of school year.

7. Edison Elementary, Utah

This represents an excerpt from the study. Please see page 45 of the appendix for the full report. Students in grades K–5 at Edison Elementary in Salt Lake City, Utah, have shown significant improvement on the English Language Arts Criterion-Referenced Test (ELA CRT). In 2011 Edison Elementary implemented Imagine Learning with all of its English language learners. The number of students using the program rose 177 percent to 449 students. Average time spent on the program also increased 150 percent to 1,083 minutes per student. The school also enhanced class quality by strategically placing students in Imagine Learning groups based on language levels. This process improved the learning environment for all students. This resulted in Edison Elementary student scores on the ELA CRT increasing by 28 percent in just one year and English language learners increased proficiency by 39 percent. English language learners also outperformed English language learners within their district with 42% of Edison English language learners passing the ELA CRT test compared to 36% in the rest of the district.

8. White Plains School District: 2009-10 to 2011-12 Results from NYSESLAT

The White Plains School District administers the NYSESLAT to determine the level of language proficiency of their EL students. The three year results from 2009 to 2012 have been carefully analyzed and are presented below. These scores represent the scaled score growth on the Listening and Speaking sections of this assessment.

As the graph on the following page illustrates, while the data from the beginning and intermediate levels are not statistically significant, all EL students make larger gains at the beginning and intermediate levels than at the advanced and proficient levels. However, students using Imagine Learning at the beginning and intermediate levels make greater gains in developing English language proficiency than those not using the program. Students using Imagine Learning at the advanced and proficient levels demonstrate statistically significant more growth on the NYSESLAT than do non-Imagine Learning students.

![Percentage Growth of Imagine Learning Students](image-url)
NOTE: The data from the beginning level and for non-IL users at the intermediate level are too small to be statistically significant. The other numbers are significant to the .05 level.

9. Miami-Dade County Public Schools, Florida

Miami-Dade County Public Schools utilizes Imagine Learning to help address language and literacy challenges at more than 70 schools in the district. In 2008, a study was conducted that compared the Dynamic Indicator of Early Literacy Skills (DIBELS) scores of students using Imagine Learning versus the scores of students who did not use Imagine Learning. The study also compared student score increases correlated to the time students spent using Imagine Learning. At the time the study was conducted, Imagine Learning was known as Imagine Learning English (ILE).

Four DIBELS measures were studied: Letter Naming Fluency (LNF), Phoneme Segmentation Fluency (PSF), Nonsense Word Fluency (NWF), and Oral Reading Fluency (ORF). The usage level of 900 minutes or 15 hours was used for time-in-program analysis. Non-ILE users were compared with the corresponding grade levels for grade-level analysis.

**Figure 7.** A comparison of time-in-program improvement on the Letter Naming Fluency measurement of DIBELS. The higher-usage students had the highest mean scores.
Evidence of Effectiveness: Summary of Studies

**Figure 8.** A pretest and posttest comparison of students who used Imagine Learning, then known as Imagine Learning English, on the Oral Reading Fluency measurement of DIBELS. The largest gain of percentage of students in a risk level was in the Low Risk group. Also, the percentage of students in the Above Average category increased.

![DIBELS: ORF Risk Levels ILE-All](image)

**10. King Elementary School, California**

Imagine Learning entered into a partnership with the Fresno Unified School District (FUSD) and King Elementary School in fall 2011. Since then, King Elementary School has used Imagine Learning with great fidelity to improve language and literacy achievement for students who are struggling readers and English learners. In fact, King School was recognized for the effective use of the program and named an Imagine Nation School by Imagine Learning. In an effort to track academic progress of the students using Imagine Learning, an analysis of a variety of tests scores was conducted by Marc Liebman, chief academic officer at Imagine Learning. King School provided the following data for both students who used Imagine Learning and those who did not:

- 2011–12 California STAR ELA test data for grades three and four
- 2011–12 GLAS 3 data for second grade
- 2011–12 DIBELS data (beginning, middle, and end-of-year testing) for kindergarten through second grade students.

**Kindergarten**

Kindergarteners using Imagine Learning demonstrated significant growth in the areas of letter naming, beginning phonemic awareness, and beginning word recognition. These skills create the foundation upon which all reading skills are based. The DIBELS assessment given at the beginning, middle and end of the 2011–12 school year indicated that students using Imagine Learning made significant progress in all areas and did so at a much faster rate than students who were not using the program. In fact, growth was 69.1 percent more in the areas of letter names, phoneme segmentation fluency, and reading words correctly. In addition, when measured as percent growth from the beginning of the year Imagine Learning students increased in proficiency by 500 percent.
First Grade
The DIBELS test given at first grade focuses on letter recognition, letter sounds, reading words phonetically, and reading accurately. Students using Imagine Learning demonstrated significant growth in these foundational reading skills. Student growth in knowledge of letter sounds as well as more advanced reading skills exceeded that of their peers not using the program. With skills like reading words correctly, Imagine Learning students demonstrated rapid growth, increasing 41.9 percent to 329.2 percent more than other students when measuring the percentage growth students made from the beginning of the year.
Second Grade

Second grade Imagine Learning students showed superior growth in reading words. Not only did they increase their skills in both reading words and accuracy on the DIBELS in 2011–12, but they increased their proficiency almost 22 percent faster than their peers who did not use Imagine Learning. Additionally, Imagine Learning users progressed 70 percent faster in reading with accuracy than their non-Imagine Learning peers. This is particularly significant considering that most of the Imagine Learning students were English learners.
Evidence of Effectiveness: Summary of Studies

Oral Reading Fluency Accuracy

- Imagine Learning Students: 11.9%
- Non-Imagine Learning Students: 7.0%
- All Students: 7.0%