National Lexile Study
2010–11 Lexile Study
Achieve3000® Solutions

KidBiz3000®, TeenBiz3000®, and Empower3000™: The first Web-based differentiated literacy solutions that reach every student at his or her Lexile® level. Powered by a proprietary software engine that distributes grade-appropriate assignments to the entire class, but tailors them according to each student’s reading level, Achieve3000 Solutions enable teachers to move their students up surely and steadily, level by level.

These research–based solutions extend teachers’ reach without increasing workloads or time demands and are proven to accelerate reading comprehension, fluency, writing proficiency, vocabulary development, and high-stakes test scores.

ACHIEVE3000® believe
The Leader in Differentiated Instruction
Executive Summary

KidBiz3000, TeenBiz3000, and Empower3000 students nearly doubled their expected growth norms as measured by Lexiles.

National Lexile Growth: Nearly Double in 2010-11

Students exceeded their “expected” Lexile gains by 51 points.

Key Findings

- Students at all grade levels made significant gains compared to gains expected with “normal” instruction, nearly doubling the expected growth norms.
- Students reading two or more years below grade level at the beginning of the school year nearly doubled the expected growth norms, effectively closing the gap for the most struggling readers.
- Students who completed at least two reading sessions per week made the highest Lexile gains on average, nearly two-and-a-half times the expected growth norms.
- English Language Learners made nearly three times their expected growth norms and gained an average of 169 Lexile points.
- The quality of the work and the number of reading sessions that students submit on Achieve3000 are statistically significant predictors of their Lexile performance.
National Elementary School Results
Elementary school students made more than one-and-a-half times their expected growth norms in reading performance as measured by Lexiles.

Elementary School Users: 2010–11 Lexile Growth

```
Lexile Points

Accelerated Growth 124
Normal Growth 78

“Students exceeded their “expected” Lexile gains by 46 points.”
```

National Middle School Results
Middle school students more than doubled their expected growth norms in reading performance as measured by Lexiles.

Middle School Users: 2010–11 Lexile Growth

```
Lexile Points

Accelerated Growth 105
Normal Growth 50

“Students exceeded their “expected” Lexile gains by 55 points.”
```
National High School Results

High school students more than tripled their expected growth norms in reading performance as measured by Lexiles.

High School Users: 2010–11 Lexile Growth

Results that Count: Achieve3000 Increases Student Performance Across the Grades

Methodology

Lexile Measurement of Reading Growth:

To determine the effects of KidBiz®, TeenBiz®, and Empower™ on the literacy development of students, Achieve3000 designed a study measuring student Lexile growth with a pre- and a post-test using the LevelSet™ assessment. LevelSet, developed in partnership with MetaMetrics®, delivers a Lexile score for the student. The actual growth achieved is compared to the expected yearly growth norms, a MetaMetrics calculation.1
Elementary School Results by Grade Level

**Elementary School Users:**
Each Grade Level Exceeds Lexile Growth Expectations

Students across all elementary school grade levels and populations made significant gains in Lexile reading performance over and above the gains expected with regular instruction.

- 2nd-grade students exceeded their “expected” Lexile gains by 68 points.

Middle School Results by Grade Level

**Middle School Users:**
Each Grade Level Exceeds Lexile Growth Expectations

Students across all middle school grade levels and populations made significant gains in Lexile reading performance over and above the gains expected with regular instruction.

- 7th-grade students exceeded their “expected” Lexile gains by 71 points.
High School Results by Grade Level

High School Users: Each Grade Level Exceeds Lexile Growth Expectations

12th-grade students exceeded their “expected” Lexile gains by 67 points.

Students across all high school grade levels and populations made significant gains in Lexile reading performance over and above the gains expected with regular instruction.

The Assessment Measure

Developed by Achieve3000 in conjunction with MetaMetrics, LevelSet offers a scientific means of matching students to informational texts.

LevelSet is administered up to three times yearly—an initial assessment to establish a baseline score (based on the Lexile Framework®) at the beginning of the school year, an interim assessment halfway through the school year, and a post-assessment at the end of the school year—providing a summative measurement of student progress. The Lexile Framework is a scientific approach to reading and text measurement that has become the most widely adopted reading measure in use today. Developed by MetaMetrics, Lexile measures are the result of more than 20 years of ongoing research.

A key advantage of the Lexile scale is that the Lexile Framework measures both text and reader using the same scale. This means that the ability to comprehend and the material being comprehended are being evaluated by the same criteria, lending it greater scientific validity.
College and Career Readiness

Achieve3000’s College and Career Report supports the current emphasis on College and Workforce Readiness and the Common Core Standards by forecasting students’ readiness for college and career based on their current Lexile reading level. Research demonstrates that giving teachers and administrators access to predictive information allows them to be more targeted in their instruction of students and translates to better student performance on high-stakes tests. After reviewing the report, educators can maximize Achieve3000’s differentiated instruction by offering students the targeted intervention they need to be successful.

Are my students on track for College and Career Readiness?

<table>
<thead>
<tr>
<th>2010–11 Pre Test</th>
<th>2010–11 Post Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>73%</td>
<td>82%</td>
</tr>
<tr>
<td>27%</td>
<td>18%</td>
</tr>
</tbody>
</table>

The College and Career Readiness initiative requires increased rigor in reading performance, which translates into higher Lexile-level requirements on every grade level. As states implement this new initiative and work to better prepare students for college and careers, educators are facing new challenges in helping students reach the “on track” reading levels necessary for success.

Although the 2010–11 school year did not focus on College and Career Readiness, the percentage of students “on track” after using the Achieve3000 program increased by 9 percent. Achieve3000 launched a new College and Career Readiness report during the 2011–12 school year to enable educators to closely monitor student progress in this area.
Closing the Gap: Results for Our Most Struggling Readers

According to national data, students reading two or more years below grade level made nearly double the expected Lexile reading gains.

Lexile Gains for Below-Level Readers

Struggling readers across the elementary school grade levels using KidBiz3000 made significant growth over and above that expected with normal instruction.

Elementary School Below-Level Readers Exceed Expected Lexile Gains

All elementary school students increased their “expected” Lexile gains more than one-and-a-half times in one school year.
Struggling readers across the middle school grade levels using TeenBiz3000 made significant growth over and above that expected with normal instruction.

**Middle School Below-Level Readers Exceed Expected Lexile Gains**

8th-grade students nearly tripled their “expected” Lexile gains in one year.

Struggling readers across the high school grade levels using Empower3000 made significant growth over and above that expected with normal instruction.

**High School Below-Level Readers Exceed Expected Lexile Gains**

12th-grade students made more than one-and-a-half times their “expected” Lexile gains in one school year.
Effect of Frequency of Program Use on Lexile Gains

Number of Reading Sessions Completed
Achieve3000 found a statistically significant relationship between the number of reading sessions completed on Achieve3000 Solutions and student nonfiction Lexile/reading growth. Students who used the program at least twice weekly made the highest Lexile gains, nearly two-and-a-half times the expected growth norms. These findings were consistent for all students, regardless of grade level.

Frequency of Usage Results for ALL Students

Lexile Gains of 88 Points and MORE with Achieve3000 Usage

* The number of reading sessions that a student completes on Achieve3000 is a predictor of his or her Lexile performance gains.

<table>
<thead>
<tr>
<th>Students using program less than once weekly:</th>
<th>Students using program at least once weekly:</th>
<th>Students using program at least twice weekly:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Lexile gain of 88 points</td>
<td>Average Lexile gain of 113 points</td>
<td>Average Lexile gain of 139 points</td>
</tr>
<tr>
<td>30-point Lexile gain above the average expected growth; this is more than one-and-a-half times the expected growth</td>
<td>55-point Lexile gain above the average expected growth; this is nearly double double the expected growth</td>
<td>81-point Lexile gain above the average expected growth; this is nearly two-and-a-half times the expected growth</td>
</tr>
</tbody>
</table>
Effect of Quality of Program Use on Lexile Gains

Reading Activity Scores

In addition to analyzing the frequency of use, Achieve3000 also analyzed the quality of program use. The multiple-choice Activity is a critical component of the Five-Step Literacy Routine and is a simple indicator of the degree to which students are applying themselves to the program. This formative assessment allows progress monitoring of overall understanding of the text read.

Quality Usage Results for ALL Students

Lexile Gains of 118 Points with Achieve3000 Usage

<table>
<thead>
<tr>
<th>Students averaging less than 65% or greater than 90%:</th>
<th>Students averaging between 65% and 90%, inclusive:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Lexile gain of 94 points</td>
<td>Average Lexile gain of 118 points</td>
</tr>
<tr>
<td>36-point Lexile gain above the average expected growth; this is more than one-and-a-half times the expected growth</td>
<td>60-point Lexile gain above the average expected growth; this is more than double the expected growth</td>
</tr>
</tbody>
</table>
Reading Connections: Explicit Reading Comprehension Strategy Instruction and Application

Achieve3000 provides explicit instruction on the seven key comprehension strategies for informational text. Two features of the program, the Lesson Plans and the Reading Connections, help address this need. The Lesson Plans that provide this direct, explicit instruction are available within the Learning Center, and one Lesson Plan is always attached to the daily article. Within each article, students are encouraged to apply the strategies of summarization, generating questions, and setting the purpose by using the Reading Connections embedded in the article.

Reading Connections Results

Reading Connections Significantly Impact Lexile Growth

All students making Reading Connections entries over the course of the school year averaged Lexile gains of 110 points, more than double the expected growth.
Graded Thought Questions:
The Reading-Writing Connection

Research shows a direct connection between reading and writing. Writing instruction helps improve reading comprehension. The Thought Question is the fourth step in the Five-Step Literacy Routine and purposefully engages students in a formal writing process that allows them to apply knowledge they have acquired and express their thoughts through writing. Students respond to prompts in three key genres, with an emphasis on persuasive/argument writing, using academic vocabulary to ensure that they are prepared to read, write, and speak effectively in all content-area courses.

Graded Thought Questions

Thought Questions Significantly Impact Lexile Growth

<table>
<thead>
<tr>
<th>Lexile Points</th>
<th>1 - 39 (n=164,745)</th>
<th>40 - 79 (n=25,707)</th>
<th>80+ (n=9,040)</th>
</tr>
</thead>
<tbody>
<tr>
<td>108</td>
<td>124</td>
<td>124</td>
<td></td>
</tr>
</tbody>
</table>

Key Findings

- Students who completed fewer than one Thought Question per week averaged gains of 108 Lexile points, nearly double the expected Lexile gains of 58 points for the school year.
- Students who completed between one and two Thought Questions per week averaged Lexile gains of 124 Lexile points, with a Lexile gains of 54 points for the school year.
- Students who completed two or more Thought Questions per week averaged Lexile gains of 124 Lexile points, with a gains of 54 points for the school year.
- Completing Thought Questions is associated with significant gains in Lexile reading scores, with students who completed two or more per week outperforming students who completed fewer than one per week by 16 Lexile points.
Closing the Gap for English Language Learners

According to a study of 18,767 English Language Learners using Achieve3000 Solutions, the actual Lexile gain of these students was nearly two-and-a-half times the expected growth norms.

**Lexile Gains for ALL Students**

**ELL National Lexile Growth: Nearly Triple in 2010–11**

- **Average Lexile gain of 169 points.**
- 109-point Lexile gain above the average expected growth; this is nearly two-and-a-half times the expected growth.

High-school-level English Language Learners exceeded their “expected” Lexile gains by nearly three-and-a-half times.

**Each Grade Level Exceeds Lexile Growth Expectations**

Grades 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12.
Effect of Frequency of Program Use on Lexile Gains for English Language Learners

Frequency of Usage Results for ALL Students

Lexile Gains of 134 Points and MORE with ELL Students' Usage

<table>
<thead>
<tr>
<th>Completed Reading Sessions</th>
<th>Students using program less than once weekly:</th>
<th>Students using program at least once weekly:</th>
<th>Students using program at least twice weekly:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Growth¹</td>
<td>Average Lexile gain of 134 points</td>
<td>Average Lexile gain of 181 points</td>
<td>Average Lexile gain of 201 points</td>
</tr>
<tr>
<td>1 - 39 (n=2,106)</td>
<td>74-point Lexile gain above the average expected growth; this is more than double the expected growth</td>
<td>121-point Lexile gain above the average expected growth; this is more than triple the expected growth</td>
<td>141-point Lexile gain above the average expected growth; this is nearly three-and-a-half times the expected growth</td>
</tr>
<tr>
<td>40 - 79 (n=1,803)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80+ (n=1,760)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹Lexile Gains of 134 Points and MORE with ELL Students' Usage
Effect of Quality of Program Use on Lexile Gains for English Language Learners

Quality of Usage Results for ALL Students

Lexile Gains of 178 Points with ELL Students’ Usage

<table>
<thead>
<tr>
<th>Students averaging less than 65% or greater than 90%:</th>
<th>Students averaging between 65% and 90%, inclusive:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Lexile gain of 159 points</td>
<td>Average Lexile gain of 178 points</td>
</tr>
<tr>
<td>99-point Lexile gain above the average expected growth; this is more than two-and-a-half times the expected growth</td>
<td>118-point Lexile gain above the average expected growth; this is nearly triple the expected growth</td>
</tr>
</tbody>
</table>
Closing the Gap for Special Education Students

According to a study of 996 Special Education students using Achieve3000 Solutions, the actual Lexile gain of these students was nearly double the expected growth norms.

Frequency of Usage Results for ALL Students

Special Education Students'
National Lexile Growth:
Nearly Double in 2010–11

Average Lexile gain of 123 points.

60-point Lexile gain above the average expected growth; this is nearly double the expected growth.

8th-grade-level and 11th-grade-level Special Education students nearly doubled their “expected” Lexile gains.

Each Grade Level Exceeds Lexile Growth Expectations
Effect of Frequency of Program Use on Lexile Gains for Special Education Students

Frequency of Usage Results for ALL Students

Special Education Students' Average At Least 93-Point Lexile Gain

<table>
<thead>
<tr>
<th>Completed Reading Sessions</th>
<th>Normal Growth$^1$ (n=3,222)</th>
<th>1 - 39 (n=2,143)</th>
<th>40 - 79 (n=1,820)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexile Points</td>
<td>63</td>
<td>93</td>
<td>135</td>
</tr>
<tr>
<td>30-point Lexile gain above the average expected growth; this is nearly one-and-a-half times the expected growth</td>
<td>72-point Lexile gain above the average expected growth; this is more than double the expected growth</td>
<td>103-point Lexile gain above the average expected growth; this more than two-and-a-half times the expected growth</td>
<td></td>
</tr>
</tbody>
</table>

Students using program less than once weekly: Average Lexile gain of 93 points

Students using program at least once weekly: Average Lexile gain of 135 points

Students using program at least twice weekly: Average Lexile gain of 166 points
Effect of Quality of Program Use on Lexile Gains for Special Education Students

Special Education Students: 140-Point Lexile Gain with Achieve3000 Usage

- Students averaging less than 65% or greater than 90%:
  - Average Lexile gain of 97 points
  - 34-point Lexile gain above the average expected growth; this is one-and-a-half times the expected growth

- Students averaging between 65% and 90%, inclusive:
  - Average Lexile gain of 140 points
  - 77-point Lexile gain above the average expected growth; this is nearly two-and-a-half times the expected growth
Challenging the Advanced and/or Enrichment Students

Research on Advanced and Gifted students tells us that the strategy most important to use in their learning experiences is differentiated instruction. Differentiated instruction should be provided to accelerate learning for high-ability students and maximize student achievement. These students, as much as all other groups of students, also need access to reading materials, activities, and instruction that does not place ceilings on their learning.

Achieve3000’s programs provide the challenge, rigor, and relevancy these students need to continue their reading-level growth. Current data from students across the country using the program supports the effectiveness of the program in meeting their needs. These students nearly doubled their expected Lexile growth.

National Lexile Growth: Nearly Double in 2010–11

Average Lexile gain of 85 points.

33-point Lexile gain above the average expected growth; this is more than one-and-a-half times the expected growth.

Gifted and Talented Students: Each Grade Level Exceeds Lexile Growth Expectations

“Middle and high school students almost doubled their “expected” Lexile gains.”
Effect of Frequency of Program Use on Lexile Gains for Advanced and/or Enrichment Students

Lexile Gains of 73 Points and MORE with Achieve3000 Usage

<table>
<thead>
<tr>
<th>Completed Reading Sessions</th>
<th>Normal Growth¹</th>
<th>1 - 39 (n=14,899)</th>
<th>40 - 79 (n=10,977)</th>
<th>80+ (n=8,154)</th>
<th>Lexile Points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>52</td>
<td>73</td>
<td>90</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

“Students completing 40 or more activities significantly exceeded their “expected” gains.”

Effect of Quality of Program Use on Lexile Gains for Advanced and/or Enrichment Students

Lexile Gains of 103 Points with Achieve3000 Usage

<table>
<thead>
<tr>
<th>Reading Activity Scores</th>
<th>Normal Growth¹</th>
<th>Less than 65% or greater than 90% (n=12,717)</th>
<th>Between 65% and 90%, inclusive (n=21,313)</th>
<th>Lexile Points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>52</td>
<td>55</td>
<td>103</td>
<td></td>
</tr>
</tbody>
</table>

“Students averaging within Achieve3000’s zone of proximal development doubled their “expected” gains.”
After School Usage

Research on adolescent literacy suggests that the amount of reading students do during out-of-school hours is an accurate predictor of their in-school academic achievement. If after-school programs can motivate young people to read more and explore their interests through reading, this research suggests that academic performance will improve.

76% of Achieve3000 students across the nation logged in after school hours. These students logged in 4,666,826 times after school during the 2010–2011 school year.

86% of Achieve3000 elementary school students across the nation logged in after school hours. These students logged in 2,281,860 times after school during the 2010–2011 school year.

75% of Achieve3000 middle school students across the nation logged in after school hours. These students logged in 1,725,965 times after school during the 2010–2011 school year.

61% of Achieve3000 high school students across the nation logged in after school hours. These students logged in 646,070 times after school during the 2010–2011 school year.
Endnotes:

¹ Normal Growth—Using MetaMetrics’ findings on expected yearly growth norms, Achieve3000 calculated the expected Lexile gain for each student. This calculation was based on the length of time from the student’s pre-test to post-test as well as the student’s initial reading level. Achieve3000 first used MetaMetrics’ expected growth norms to calculate the expected monthly growth for a student at that reading level. Achieve3000 then multiplied the expected monthly growth by the number of months the student spent on the program to arrive at an “expected Lexile gain” score for each student.

Appendix

Refering to Page 9: Effect of Frequency of Program Use on Lexile Gains

When a comparison of means was performed between the three usage categories- (1–39, 40-79, 80+), a statistically significant difference was found between each group (p = .05). An analysis of variance (ANOVA) was performed to compare the group means.

ANOVA – Lexile Gains

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>76171418</td>
<td>2</td>
<td>38085709.00</td>
<td>1412.714</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6.1E+009</td>
<td>225816</td>
<td>26959.249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6.2E+009</td>
<td>225818</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Bonferroni post-hoc test found that all three groups were statistically significantly different from each other (see below).

Bonferroni Test - Multiple Comparisons

<table>
<thead>
<tr>
<th>(I) Overall Reading Sessions</th>
<th>(J) Overall Reading Sessions Groups</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td></td>
<td>80+</td>
<td>-51.477(*)</td>
<td>1.074</td>
<td>.000</td>
<td>-54.05</td>
</tr>
<tr>
<td>40-79</td>
<td>1-39</td>
<td>26.622(*)</td>
<td>.777</td>
<td>.000</td>
<td>24.76</td>
</tr>
<tr>
<td></td>
<td>80+</td>
<td>-24.854(*)</td>
<td>1.158</td>
<td>.000</td>
<td>-27.63</td>
</tr>
<tr>
<td>80+</td>
<td>1-39</td>
<td>51.477(*)</td>
<td>1.074</td>
<td>.000</td>
<td>48.91</td>
</tr>
<tr>
<td></td>
<td>40-79</td>
<td>24.854(*)</td>
<td>1.158</td>
<td>.000</td>
<td>22.08</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the .05 level.
Referring to Page 10: Effect of Quality of Program Use on Lexile Gains

When a comparison of means was performed between the two usage categories (less than 65% or greater than 90%; between 65% and 90%, inclusive) a statistically significant difference was found between the usage groups (p = .05). The students who averaged between 65% and 90%, inclusive, on their activities made significantly higher Lexile gains.

**Independent Samples Test – Lexile Gains**

<table>
<thead>
<tr>
<th>t-test for Equality of Means</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>df</td>
<td>Sig. (2-tailed)</td>
<td>Mean Difference</td>
<td>Std. Error Difference</td>
<td>95% Confidence Interval of the Difference</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>-57.332</td>
<td>225817</td>
<td>.000</td>
<td>-39.731</td>
<td>.693</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-57.661</td>
<td>223129.2</td>
<td>.000</td>
<td>-39.731</td>
<td>.689</td>
</tr>
</tbody>
</table>

**Group Statistics**

<table>
<thead>
<tr>
<th>Average Activity Score</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Lexile Gain</td>
<td>Less than 65% or greater than 90%</td>
<td>103047</td>
<td>87.32</td>
<td>158.113</td>
</tr>
<tr>
<td></td>
<td>Between 65% and 90%, inclusive</td>
<td>122772</td>
<td>127.05</td>
<td>168.831</td>
</tr>
</tbody>
</table>
To learn more about Achieve3000
and its proven solutions,
call 888-968-6822
or e-mail office@achieve3000.com