McGraw Hill | Achieve3000

2022 - 2023

International Lexile Study

An Analysis of How Achieve3000 Literacy Accelerates Reading Growth

2024

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McGraw Hill | Achieve3000

Findings from the 2022 - 2023 study

Including data and analysis from:

80,616
Students

145L
Average Actual Lexile Growth

35
Countries
(plus U.S. Territories)

208
Districts

77L
Average Expected Lexile Growth

645
Schools
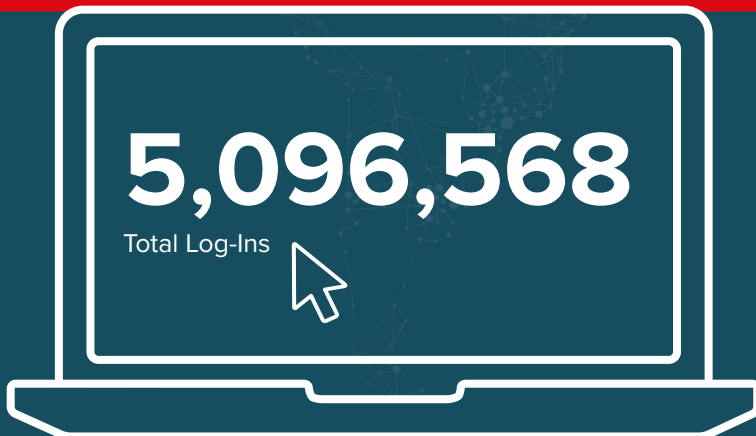
5,096,568
Total Log-Ins

4,741,001
Activities

Foreword

Patrick Staley,
Senior Director,
Product &
Professional
Learning

Dr. Mai Sidawi,
Director,
Global Business
Development

Patrick Staley, Senior Director, Product & Professional Learning
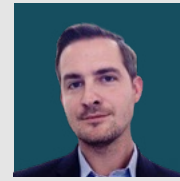**Dr. Mai Sidawi, Director, Global Business Development**

For over 20 years Achieve3000 Literacy has been at the forefront of learning acceleration. Consistency and innovation are hardly synonymous, but they are an essential pairing in the field of learning technology. In a global educational landscape saturated by new tools, algorithms, advanced intelligence, and augmented reality, educators deserve confidence that their edtech platforms are backed by efficacy and built for a true instructional purpose.

The International Lexile Study, through the partnership with McGraw Hill and Metametrics, has provided educators with that confidence year after year. And while a global pandemic interrupted this, our commitment to serving schools across the world has not wavered. Our partners adapted and continued to implement Achieve3000 solutions in innovative ways to produce fantastic results in the face of learning challenges. To that end, we are excited to publish our new International Lexile Study for the 22-23 academic year.

Two times a week and a 75% first try activity score. This simple formula fuels the complex and patented algorithm within Achieve3000 Literacy. For 22-23, students in the study, on average, nearly doubled their growth: 77L expected and 145L achieved. Across all school types and student populations we saw acceleration that places students closer to their college and career readiness goals. **This year we are excited to highlight one group that is not usually associated with differentiation, our advanced readers.**

The rapid growth we saw in the study, which was on average more than 5x their expected growth (25L expected and 129L-172L achieved), shows how effective Achieve3000 can be at providing rigor and challenge for advanced learners to achieve a level expected for top universities.

The significance of literacy in enhancing standards of living and fostering good citizenship is an established fact. As the world becomes increasingly interconnected, literacy emerges as a key factor not only for personal development but also for societal progress. Achieving literacy is a dynamic and lifelong process, and its impact resonates across various facets of life (UNESCO, 2023).

However, amidst the broader context of literacy, it is disconcerting to note a decline in reading levels as evidenced by the PISA 2022 study (OECD, 2023). The trend analysis reveals a downward trajectory in reading performance, predating the disruptions caused by the COVID-19 pandemic. This decline spans across various countries, signaling a need for renewed emphasis on literacy education. In the face of technological advancements and the evolving demands of complex texts, personalization of learning experiences has become imperative.

Achieve3000 Literacy is a solution that addresses the challenges outlined by the PISA 2022 study. Our platform leverages artificial intelligence to revolutionize literacy education. As technology becomes an integral part of education, McGraw Hill and Achieve3000 are committed to harnessing AI in a purposeful and ethical way to ease teacher workflows, facilitate differentiation, and personalize learning experiences for students across all ability levels and grade levels.

The Achieve3000 Literacy program is built upon a foundation of learning science, designed collaboratively with educators and students in mind, and adheres to stringent privacy practices. Embedded assessments and a proprietary acceleration engine are employed to dynamically adjust the difficulty of texts based on students' evolving reading skills. The success of this process is demonstrated by the accelerated learning we see in the results of this study.

As we navigate the complexities of literacy education in the 21st century, Achieve3000 Literacy harnesses the power to personalize learning experiences, foster engagement, and promote collaboration between students and teachers. Achieve3000 opens the door to a future where literacy is more than just a skill – it becomes a path to empowerment and enlightenment for everyone.

Executive Summary

Dr. Greg Gunn, Psychometrician

Dr. Greg Gunn,
Psychometrician

> **At the conclusion of the 2022-23 school year, the usage and performance data for international students who used Achieve3000 Literacy during the preceding school year was aggregated and analyzed through multiple methods.**

This document is a summary of the results of that analysis.

■ **Highly engaged students achieved 3.4X their expected reading growth.**
On average, students gained 145L, which was 68L higher than their expected growth of 77L. However, reading growth increased to as high as 258L for more engaged students.

■ **Highly engaged learners in specific student population groups attained at least 3.1X their expected reading growth.**
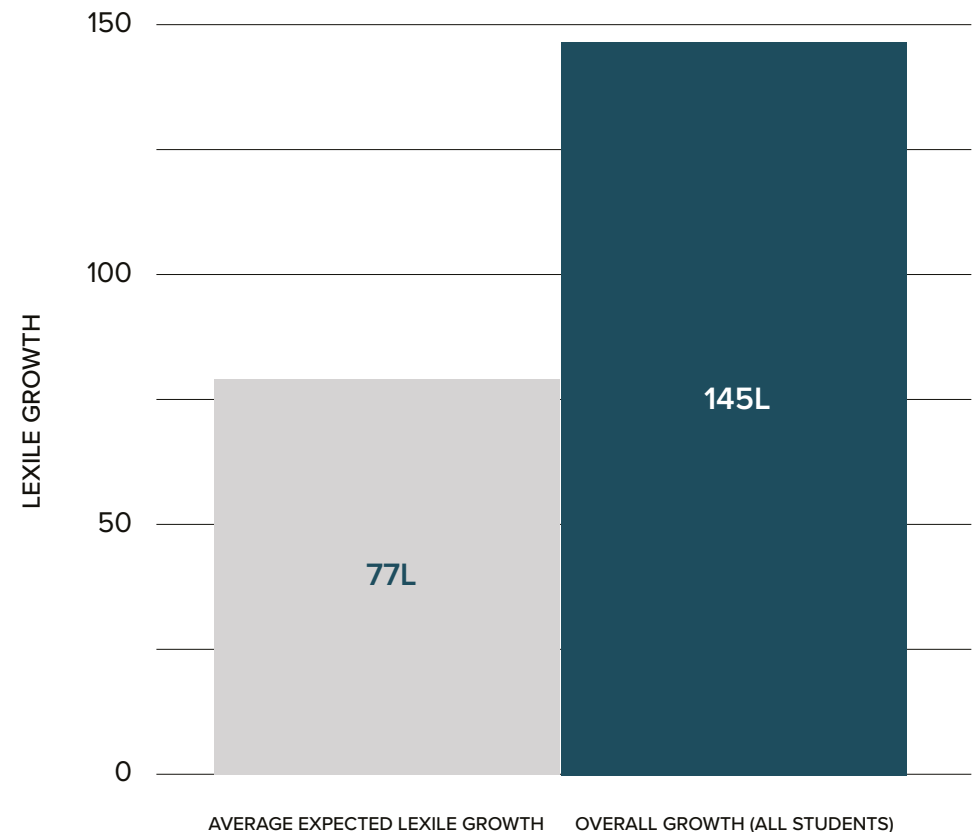Highly engaged, below-grade-level readers demonstrated 3.1X expected growth and highly engaged above-grade-level readers achieved 6.9X expected growth.

■ **Highly engaged learners in specific academic settings attained at least 3.5X their expected reading growth.**
Highly engaged students from private language centres demonstrated 3.5X expected growth and highly engaged students from universities achieved 4.9X expected growth.

■ **The percentage of students who were on track for university and career readiness increased from 20 to 35 percent.**
The 35% percent of students who were on track for university and career readiness by the end of the 2022-23 school year exceeded the 24% of students that were forecasted to be on track by the end of the school year based on expected growth from their pretest Lexile measures.

LEXILE GROWTH

150 —
100 —
50 —
0 —

77L

145L

AVERAGE EXPECTED LEXILE GROWTH   OVERALL GROWTH (ALL STUDENTS)

Accelerated literacy growth is more important today than it's ever been.

We all know that one of the impacts of the pandemic was global learning loss. A paper by Bastian Betthäuser that appeared in Nature Human Behaviour earlier this year suggests that students in 15 countries "lost out on about 35% of a normal school year's worth of learning" and that "children from disadvantaged backgrounds were disproportionately affected." That impact is still being felt today, which is why accelerated learning is so important.
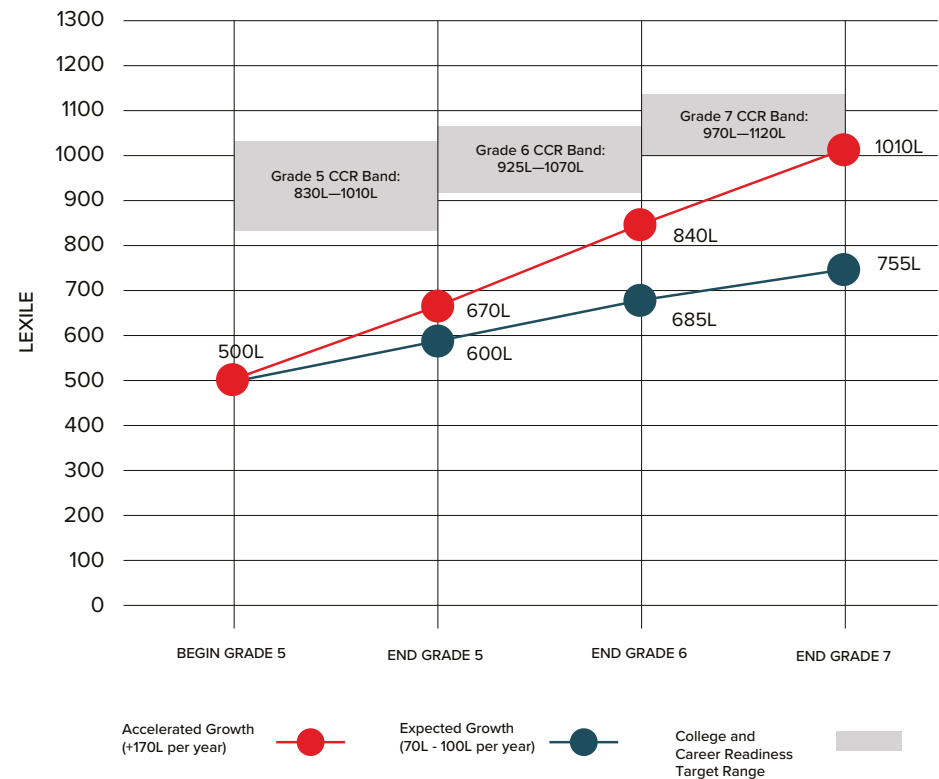
How do we measure accelerated literacy growth? Expected growth is based on MetaMetrics's proprietary formula (MetaMetrics, 2004), which considers the student's initial Lexile® measure and the length of time from the student's beginning-of-year measure to the end-of-year measure. Actual growth is calculated by subtracting the student's beginning-of-year Lexile measure from her current or end-of-year Lexile measure. Accelerated growth is any growth above a student's expected growth. Achieve3000 Literacy is especially committed to making accelerated

literacy growth possible for more students, for below grade-level and advanced readers as well. When we consider shifts in Lexile growth, it is important to remember that students who are performing below grade-level often need to double or triple their expected growth over the course of two to three years to achieve college and career readiness by high school graduation. (See chart to the right.) Achieve3000 Literacy is also the solution to catapult advanced readers into exciting horizons of interesting realms of content, capturing their imagination and providing momentum towards a lifelong journey of growth.

> **This student needs to attain 1.7 times their expected growth to get on track for college and career readiness.**

This chart shows the expected growth and acceleration trajectories for a fifth grader who is reading two years below grade level. This student would need to attain an accelerated rate of growth—1.7 times the expected rate of growth—to achieve college and career readiness by the end of seventh grade. The gap between expected and accelerated growth grows wider each year the student does not get on track for college and career readiness.

Growth Trajectories for a Grade 5 Student Reading Two Years Below Grade Level

Grade 5 CCR Band: 830L—1010L
Grade 6 CCR Band: 925L—1070L
Grade 7 CCR Band: 970L—1120L

500L, 670L, 840L, 1010L (Accelerated Growth)
500L, 600L, 685L, 755L (Expected Growth)

BEGIN GRADE 5 | END GRADE 5 | END GRADE 6 | END GRADE 7

Accelerated Growth (+170L per year)
Expected Growth (70L - 100L per year)
College and Career Readiness Target Range

Overall Results

Achieve3000 Literacy's patented methodology for delivering just-right content at the just-right time ensures that students who maintain an average first-try score (AFTS) of 75% or more on the assessments embedded within each lesson will receive more challenging texts to help them grow.

Because the text is matched to every student's reading level, it is fair and reasonable to expect that they can attain a 75% average over the course of the school year. Only the second usage category looks at students with an AFTS of 75% or higher. The first usage category is only based on # of lessons completed.

Appendix | Reporting Category Key

**High Usage and High Performance
40+ Activities & =>75% AFTS**
Average actual growth for students who completed 40 or more activities with an average first-try score of 75% or higher.

High Usage 40+ Activities
Average actual growth for students who completed 40 or more activities.

Overall Growth
Average actual growth, from beginning-of-year measure to end-of-year measure, for all students.

Expected Growth
Average expected growth, based on MetaMetrics's proprietary formula, for all students.

Legend:
- Expected Growth (gray)
- Overall Growth (teal)
- High Usage 40+ Activities (red)
- High Usage and High Performance 40+ Activities & of ≥75% AFTS (dark blue)

Bar chart data (LEXILE GROWTH):
- Expected Growth: 77L, n=80,616
- Overall Growth: 145L, n=80,616, 1.9x
- High Usage 40+ Activities: 183L, n=44,466, 2.4x
- High Usage and High Performance 40+ Activities & of ≥75% AFTS: 258L, n=25,572, 3.4x
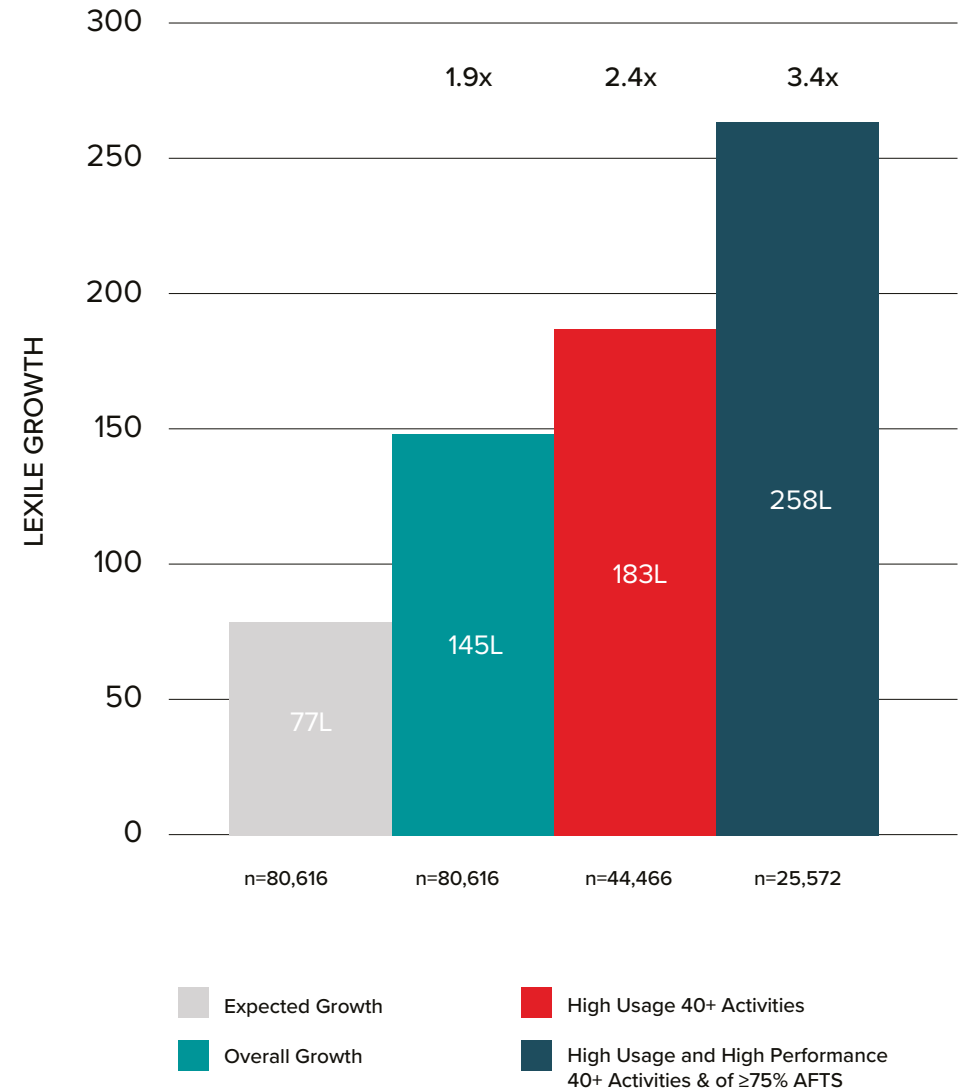
Overall Results - School Level

Highly engaged learners attained at least 2.4X their expected reading growth across school levels.

Overall Results - School Level

Legend:
- Expected Growth
- Overall Growth
- High Usage 40+ Activities
- High Usage and High Performance 40+ Activities & of ≥75% AFTS

PRIMARY SCHOOL (GRADES 1-5)

	Expected Growth	Overall Growth	High Usage 40+ Activities	High Usage and High Performance
Multiplier		1.3x	1.5x	2.4x
Lexile	103L	131L	152L	243L
n	n=17,388	n=17,388	n=10,802	n=4,065

MIDDLE SCHOOL (GRADES 6-8)

	Expected Growth	Overall Growth	High Usage 40+ Activities	High Usage and High Performance
Multiplier		1.5x	1.9x	3.0x
Lexile	80L	120L	153L	236L
n	n=33,932	n=33,932	n=17,320	n=8,657

HIGH SCHOOL (GRADES 9-12)

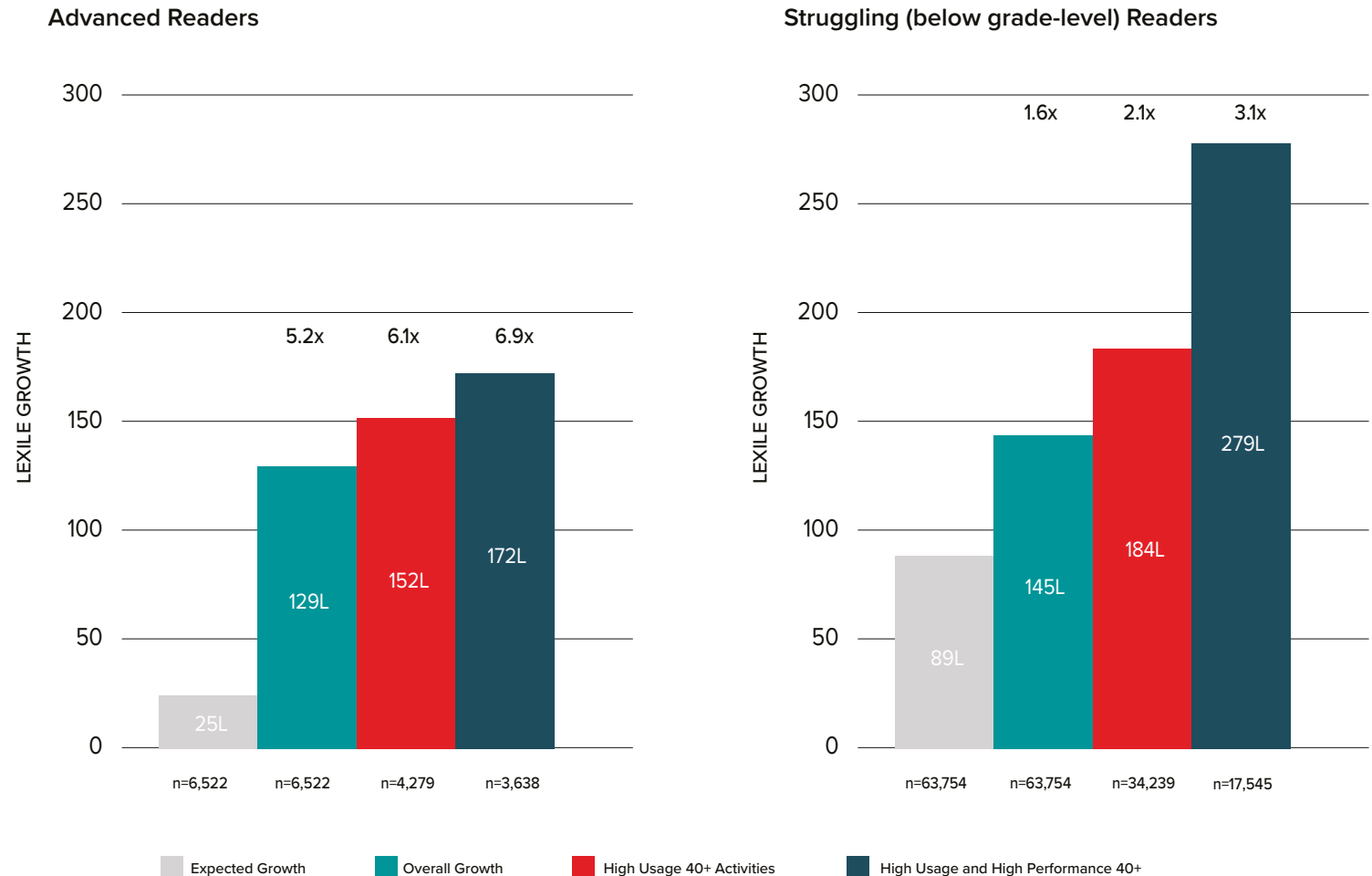|	Expected Growth	Overall Growth	High Usage 40+ Activities	High Usage and High Performance
Multiplier		3.2x	4.0x	4.8x
Lexile	58L	183L	234L	278L
n	n=29,296	n=29,296	16,344	n=12,850

Student Population Groups

Highly engaged Below-grade-level readers attained 3.1X their expected reading growth. Highly engaged above-grade-level readers achieved 6.9x expected growth.
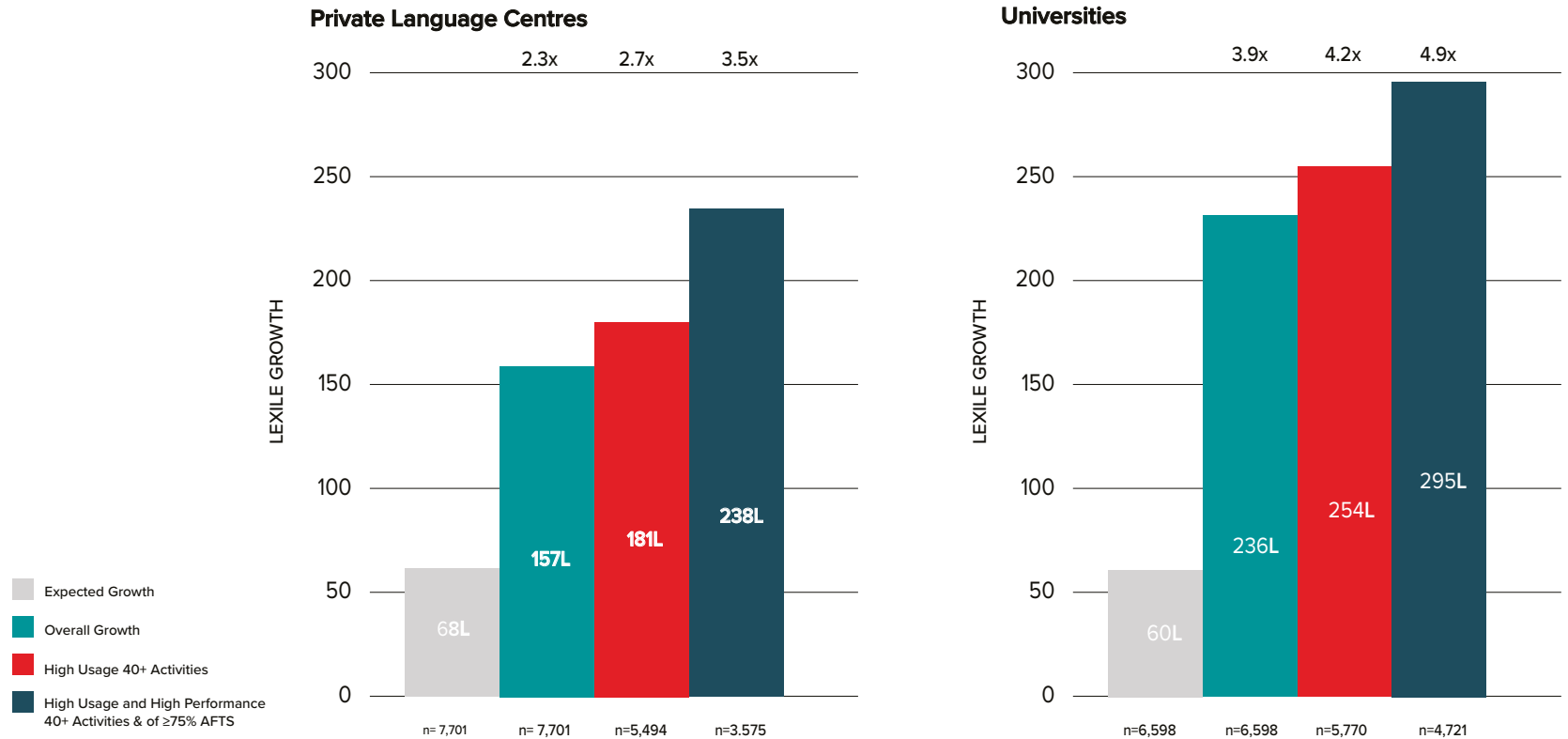
Achieve3000 Literacy provides educators with insight into how many of their students are progressing at a rate that puts them "on track" to reach university-level reading proficiency by the end of 12th grade (1300L). Advanced readers in this analysis exceeded the requirements for college and career readiness.

Students were designated as above-grade-level or below-grade-level readers based on the fall percentile corresponding to their pre-test LevelSet Lexile measures. Above-grade-level readers were defined as performing at the 75th percentile or above. Below-grade-level readers were defined as performing at or below the 35th percentile.

Advanced Readers

LEXILE GROWTH

| | | 5.2x | 6.1x | 6.9x |

- 25L (n=6,522)
- 129L (n=6,522)
- 152L (n=4,279)
- 172L (n=3,638)

Struggling (below grade-level) Readers

LEXILE GROWTH

| | | 1.6x | 2.1x | 3.1x |

- 89L (n=63,754)
- 145L (n=63,754)
- 184L (n=34,239)
- 279L (n=17,545)

Legend:
- Expected Growth
- Overall Growth
- High Usage 40+ Activities
- High Usage and High Performance 40+

Academic Settings

Highly engaged students from private language centres demonstrated 3.5x expected growth and highly engaged students from universities achieved 4.9x expected growth.

Private Language Centres

| | | 2.3x | 2.7x | 3.5x |

Universities

| | | 3.9x | 4.2x | 4.9x |

Legend:
- Expected Growth
- Overall Growth
- High Usage 40+ Activities
- High Usage and High Performance 40+ Activities & of ≥75% AFTS

Private Language Centres values:
- 68L (n= 7,701)
- 157L (n= 7,701)
- 181L (n=5,494)
- 238L (n=3.575)

Universities values:
- 60L (n=6,598)
- 236L (n=6,598)
- 254L (n=5,770)
- 295L (n=4,721)

The journey to college and career readiness begins here

It's useful to think of college and career readiness as a journey. Since expectations have shifted toward a more rigorous outcome, it is critical to understand that, for below-grade-level readers, it will take two or three years to reach college and career readiness reading levels. Because we know a student's expected growth, and we know the approximate Lexile measure students need to attain to be competitive in the workforce and successful in college, we can make a prediction about whether or not a student is or isn't "on track" to reach 1300L by the end of their high school year, depending on their grade level and current Lexile measure. Students who are in the two Not on Track categories shown in the table to the right are not meeting the college and career readiness targets for their grade while students in the two On Track categories are meeting grade-level targets and can be expected to read at or above 1300L by the time they graduate as long as they continue to achieve expected or greater growth every year.

Lexile scores at or below 0L are reported as BRxxxL (Beginning Reader)

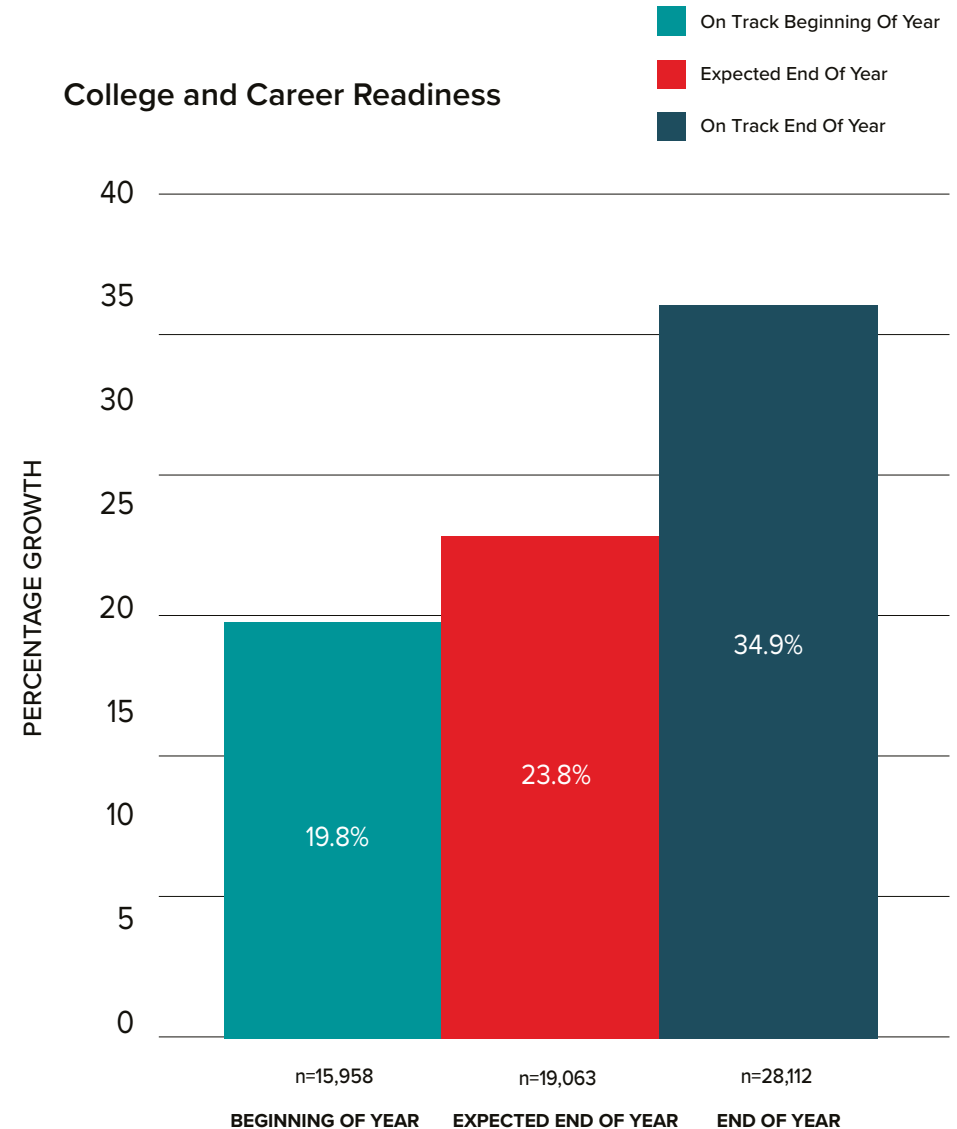|	COLLEGE AND CAREER READINESS PROFICIENCY RANGES			
	Not On Track		**On Track**	
Grade	Falls Far Below	Approaches	Meets	Exceeds
1	BR115 and Below	BR110 to 185L	190L—530L	535L and Above
2	150L and Below	155L—415L	420L—650L	655L and Above
3	265L and Below	270L—515L	520L—820L	825L and Above
4	385L and Below	390L—735L	740L—940L	945L and Above
5	500L and Below	505L—825L	830L—1010L	1015L and Above
6	555L and Below	560L—920L	925L—1070L	1075L and Above
7	625L and Below	630L—965L	970L—1120L	1125L and Above
8	660L and Below	665L—1005L	1010L—1185L	1190L and Above
9	775L and Below	780L—1045L	1050L—1260L	1265L and Above
10	830L and Below	835L—1075L	1080L—1335L	1340L and Above
11/12	950L and Below	955L—1180L	1185L—1385L	1390L and Above

College and Career Readiness

Reading proficiency is one of the strongest indicators of success after secondary school. Using grade-level benchmarks developed by MetaMetrics®, Achieve3000 Literacy provides educators with insight into how many of their students are progressing at a rate that puts them "on track" to reach university-level reading proficiency by the end of 12th grade (1300L).

Overall and on average, the percentage of students who were On Track increased from fall to spring from 19.8 to 34.9 percent.

> **The study found that the percent of students who were on track for college and career readiness increased by 76%.**

College and Career Readiness

Legend:
- On Track Beginning Of Year
- Expected End Of Year
- On Track End Of Year

PERCENTAGE GROWTH

- 19.8% — n=15,958 — BEGINNING OF YEAR
- 23.8% — n=19,063 — EXPECTED END OF YEAR
- 34.9% — n=28,112 — END OF YEAR

References

MetaMetrics, Inc. (2004). Unpublished growth data.
2022-2023 National Lexile Study Published by
McGraw Hill. 323 Newman Springs Road, Suite 3,
Red Bank, NJ 07701 www.achieve3000.com

Sources:

M. H. (2023, June 28). A Quick Reference Guide to Artificial Intelligence for Teachers. Medium. Retrieved January 30, 2024, from https://medium.com/inspired-ideas-prek-12/a-quick-reference-guide-to-artificial-intelligence-for-teachers-8e44d6d6d1f1

Arena, D. (2023, March 15). How Can AI in Education Go From Fascinating to Functional? Medium. Retrieved January 30, 2024, from https://medium.com/inspired-ideas-prek-12/how-can-ai-in-education-go-from-fascinating-to-functional-29eb39630356

OECD (2023), PISA 2022 Results (Volume I): The State of Learning and Equity in Education, PISA, OECD Publishing, Paris, https://doi.org/10.1787/53f23881-en.

UNESCO. (2023, June 29). What you need to know about literacy. Medium. Retrieved January 30, 2024, from https://www.unesco.org/en/literacy/need-know

About Achieve3000
Achieve3000, a McGraw Hill company, delivers a comprehensive learning platform that significantly accelerates and deepens learning in literacy, math, science, social studies, and ELA. Using personalized and differentiated solutions, Achieve3000 enables educators to help all students achieve accelerated growth. For more than five million users, Achieve3000 improves high-stakes test performance and drives college and career readiness.

Learn more about Achieve3000's learning solutions at www.achieve3000.com