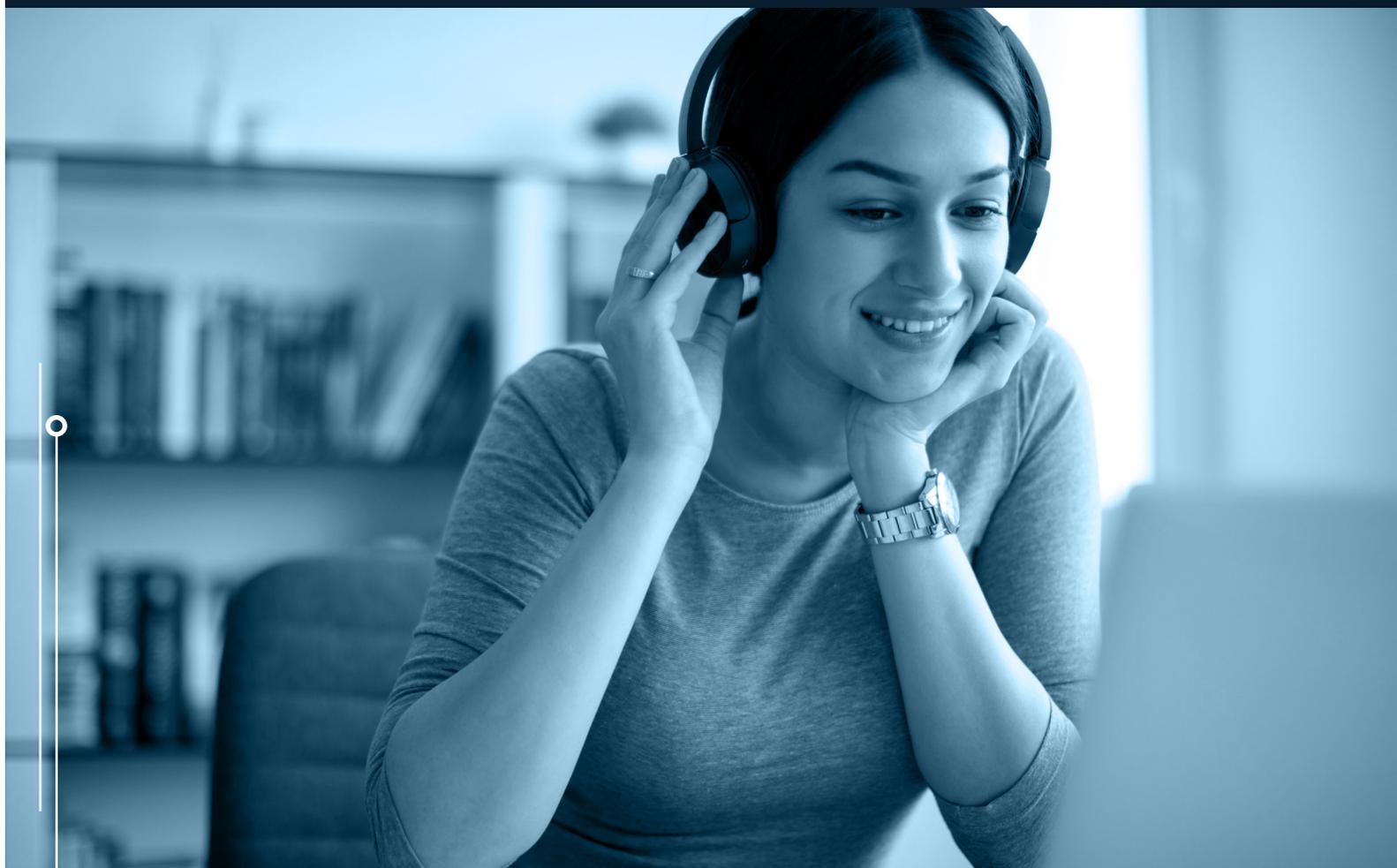


Achieve3000®  MetaMetrics

COLLEGE & CAREER READINESS

W H I T E P A P E R

Getting Students on Track for Success with Achieve3000® Literacy



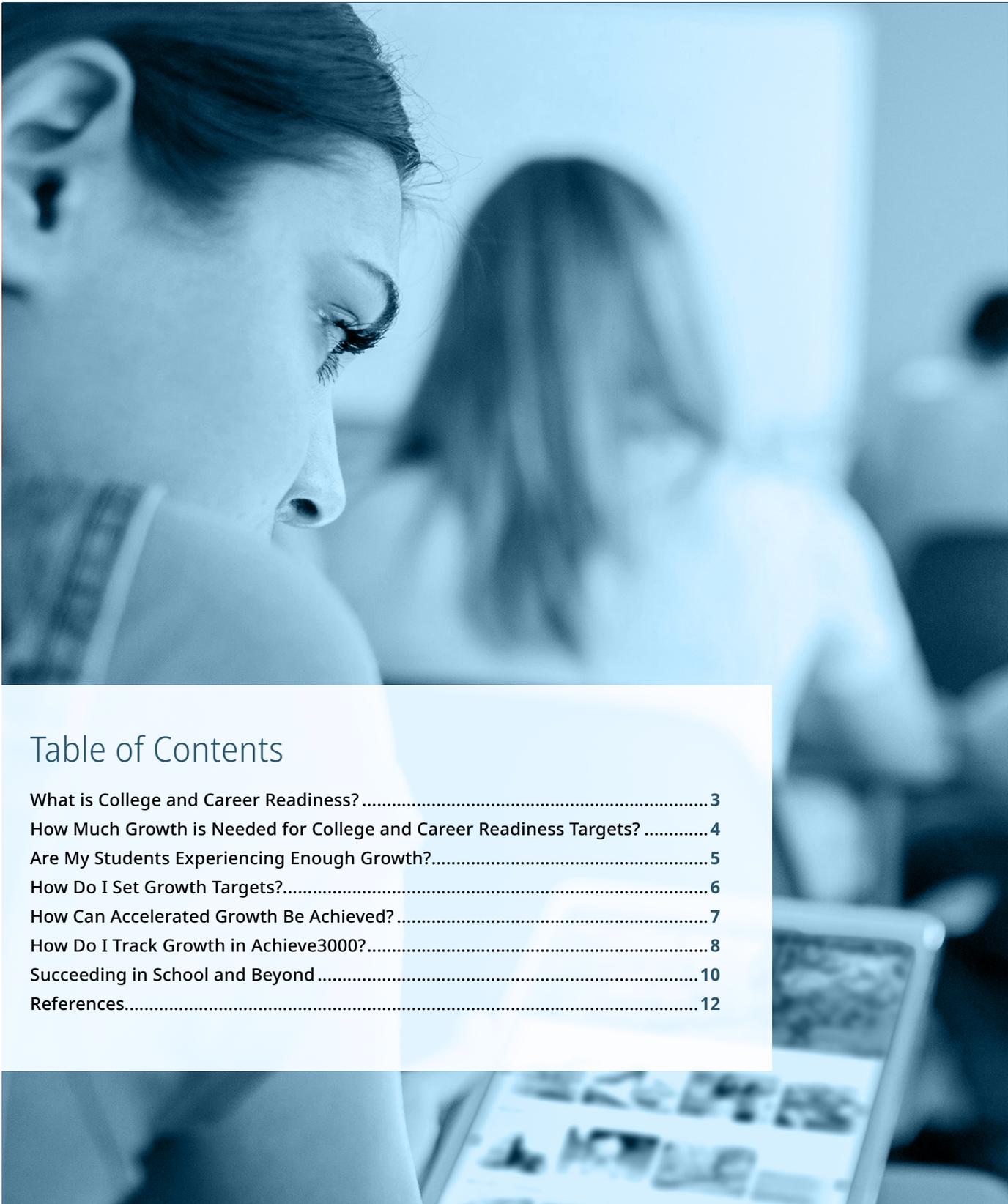


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About Achieve3000 Literacy

Achieve3000 Literacy is a digital literacy solution that is designed to support learning growth for students in grades 2-12. Based on decades of scientific research, this proven learning platform differentiates instruction to 12 levels in English and 8 in Spanish to reach all students at their level, accelerating learning, improving high-stakes test scores, and driving college and career readiness.

This powerful solution also extends teachers' reach without adding to their workloads or time demands. By combining embedded assessment, differentiated instruction, regular skills practice, and targeted scaffolds in a single program, Achieve3000 Literacy empowers educators to increase their students' reading gains steadily and surely, level by level.

Introduction

Achieve3000 partnered with MetaMetrics®, developers of the Lexile® Framework for Reading, and Kevin E. Baird, Chairman and National Supervising Faculty at the Center for College & Career Readiness, to help educators gain a deeper understanding of how to support their students' progress through the development of this in-depth report. It highlights how Achieve3000's patented and proven approach to differentiated instruction accelerates literacy growth by defining the challenges of the new expectations for college and career readiness, identifying strategies for setting growth targets, and analyzing student gains.

New Standards & Challenges

A new generation of state standards has been built around the ambitious goal of ensuring all students graduate from high school "college- and career-ready." Under these new standards, students are expected to read more complex text and reach greater depths of knowledge than ever before (NGA Center & CCSSO, 2010, p.10). For many schools across the United States, closing the gap between previous expectations and the new standards presents a significant challenge. The scale of this challenge was made evident in 2015 when many states introduced new assessments aligned to the new standards. The results of these assessments were alarming, with far fewer students scoring proficiently than in previous years ("Common Core's Big Test: Tracking 2014-15 Results," 2015).

How can today's education leaders ensure their students are making sufficient progress toward these new standards and achieving college and career readiness?

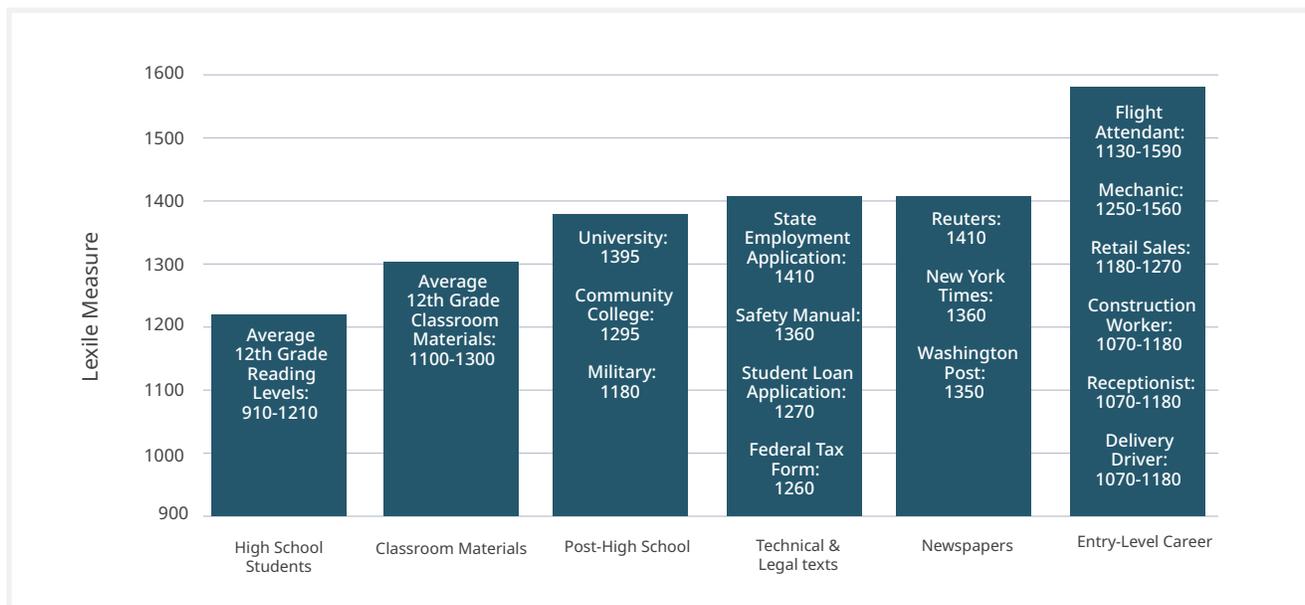


What Is College And Career Readiness?

When a student is “college- and career-ready,” it means he or she has the knowledge and skills needed to qualify for and succeed in a postsecondary program or an entry-level job. Strong literacy skills—in particular, the ability to read and comprehend complex text—are an essential component of college and career readiness (Williamson, G. L., 2008). The Lexile Framework for Reading allows us to measure both text complexity and reader ability using the same scale (White, S. & Clement, J., 2001; Lennon, C., & Burdick, H., 2014). For example, an individual who reads at 1200L should find it easy to read and comprehend a text written at 1000L, but may have difficulties with a text written at 1400L. In terms of college and career readiness, the Lexile Framework means we can compare a student’s reading ability to the typical level of text complexity one can expect to encounter when completing coursework at a university or community college, working in an entry-level job, or engaging in common tasks such as reading a newspaper or safety manual.

Figure 1 shows the average 12th-grade student’s Lexile measure and the Lexile measures of various reading materials they are likely to encounter after graduation.

FIGURE 1 College and Career Lexile Levels



While individuals will encounter a wide range of text complexity in different colleges and careers, reading at 1300L by the end of high school is often considered the benchmark for college and career readiness. To ensure students are continually moving towards 1300L, many of the new state standards establish a college and career readiness trajectory with target Lexile “ranges” or “bands” for each grade level that challenge students to read progressively more complex text as they move from grade to grade.



Students should target a Lexile reading score of 1300 by high school graduation to be college and career ready!

As a result, one key measure of college and career readiness is a student’s ability to independently and proficiently read text in English language arts, science, and social studies at the upper levels of the grade-level Lexile bands.

Achieve3000 Literacy uses four proficiency ranges in each grade (see Table 1) to identify each learner’s level of college and career readiness (MetaMetrics, Inc. & Achieve3000, Inc., 2016). Students who are in the two “Not on Track” categories are not meeting the college and career readiness targets for their grade level and are not expected to reach the 1300L level by the end of high school without significant intervention and acceleration. 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.***

Table 1 College and Career Readiness Proficiency Ranges

Grade	Not on Track		On Track	
	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

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 many students, it will take two or three years to reach college and career readiness reading levels.

To help “Not on Track” students close the gap and meet college and career readiness targets and ensure “On Track” students make adequate progress each year, it is imperative that the curriculum at each grade level be focused on the acceleration of every student’s skills to achieve more than 100% of expected growth every year.

In many cases, the curriculum at one grade level may be effective at accelerating student growth for all students, but in subsequent grades the curriculum does not yield above-expected growth. “Not on Track” students can begin to catch up in one year and then fail to move forward toward the new, more rigorous definition of readiness; “On Track” students can even fail to make expected growth and fall behind. For this reason, college and career readiness levels must be reassessed at the beginning of each academic year and periodically reviewed as a measure of accelerated learning during the year. Additionally, vertical articulation of the curriculum and benchmarks is necessary to ensure all students stay on track.

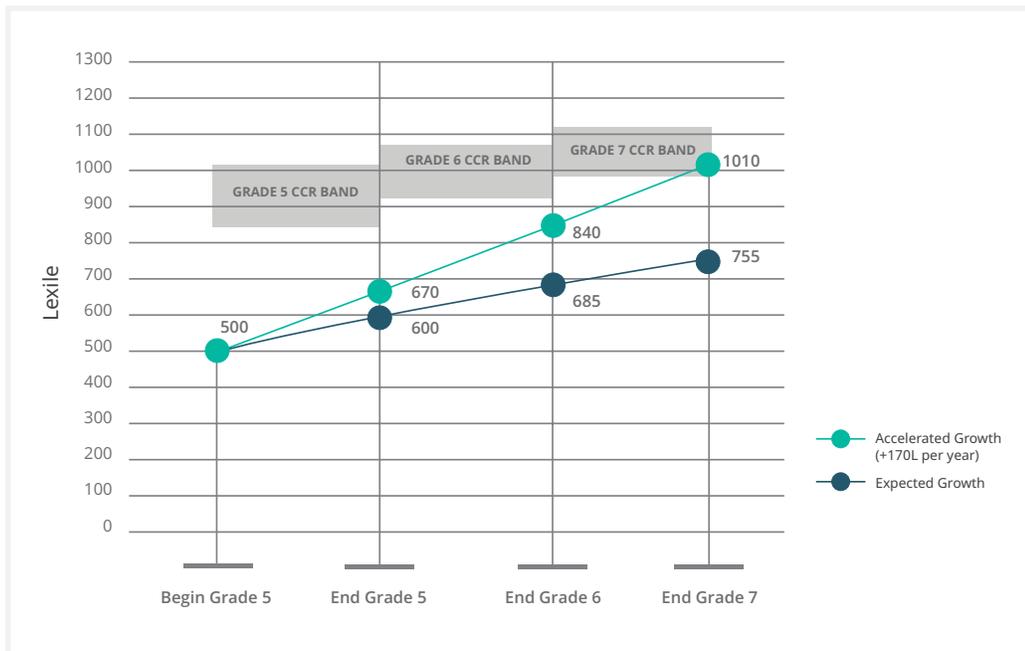
How Much Growth is Needed to Meet College and Career Readiness Targets?

The answer to this question is different for each student. Students who are far below grade level have more ground to make up than students who are already performing at grade level. This fact is illustrated in the figures below.

Figure 2 shows a student in fifth grade who is far below the college and career readiness target for the grade. He began fifth grade with a Lexile measure of 500L, which is 230L below the lower bound of the target range, represented by the gray shading.

If he were to experience the expected amount of growth for a student at 500L, he would follow the blue line and finish fifth grade at 600L, a growth of 100L. If he were to continue growing as expected in sixth and seventh grades, he would finish seventh grade at 755L, well below the college and career readiness target for that grade. However, if he could accelerate his growth to 170L in fifth grade and maintain that growth rate through seventh grade, he would follow the trajectory represented by the green line and finish seventh grade within the target college and career readiness band. Thus, the key to success for this student is an accelerated rate of growth sustained over multiple years.

FIGURE 2 EXAMPLE: Growth Trajectories for a Grade 5 Student Reading 2 Years Below Grade Level



Figures 3 through 5 show students who start one year below grade level, on grade level, and above grade level. The student who starts one year behind (depicted in Figure 3) needs growth of 105L per year to reach college and career readiness in three years. Not surprisingly, the on- and above-grade-level students (depicted in Figures 4 and 5, respectively) require less growth to meet the targets.

FIGURE 3 EXAMPLE: Growth Trajectories for a Grade 5 Student Reading 1 Year Below Grade Level

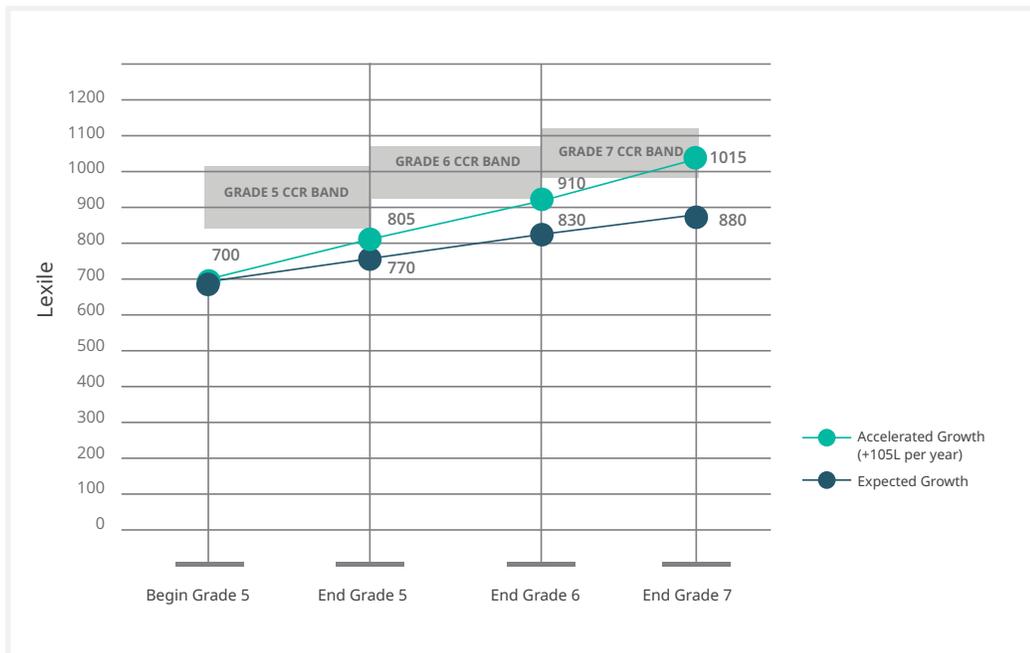


FIGURE 4 EXAMPLE: Growth Trajectories for a Grade 5 Student Reading at Grade Level

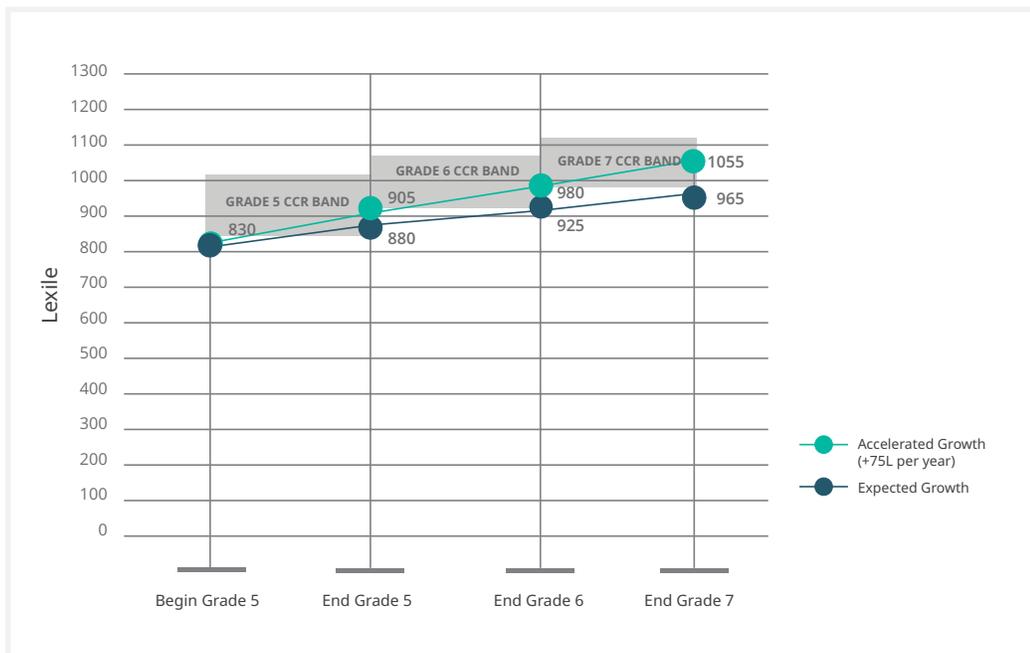
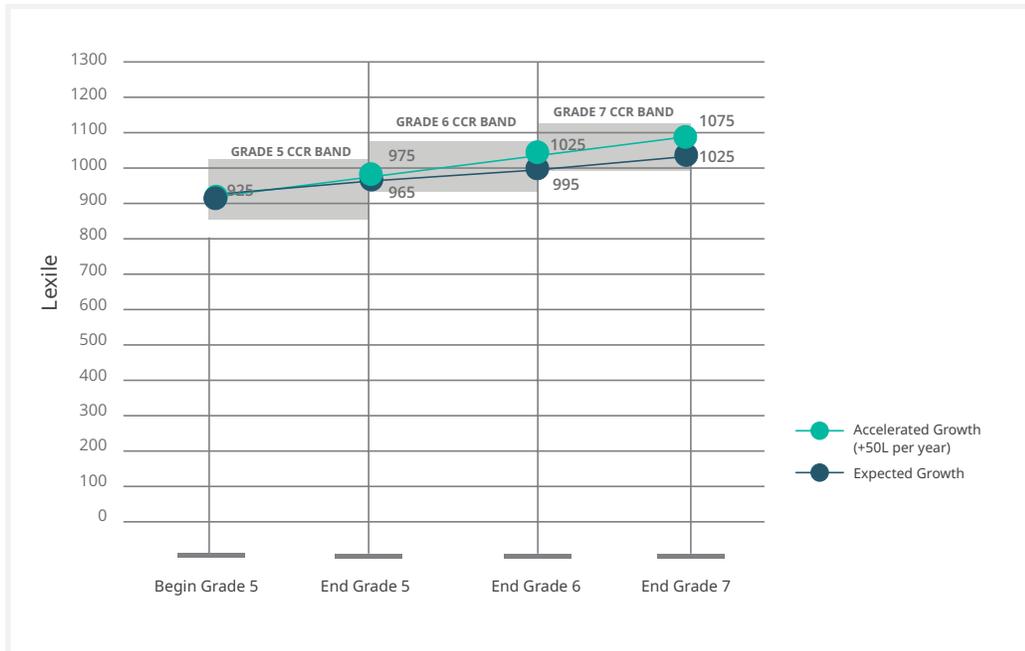


FIGURE 5 EXAMPLE: Growth Trajectories for a Grade 5 Student Reading Above Grade Level

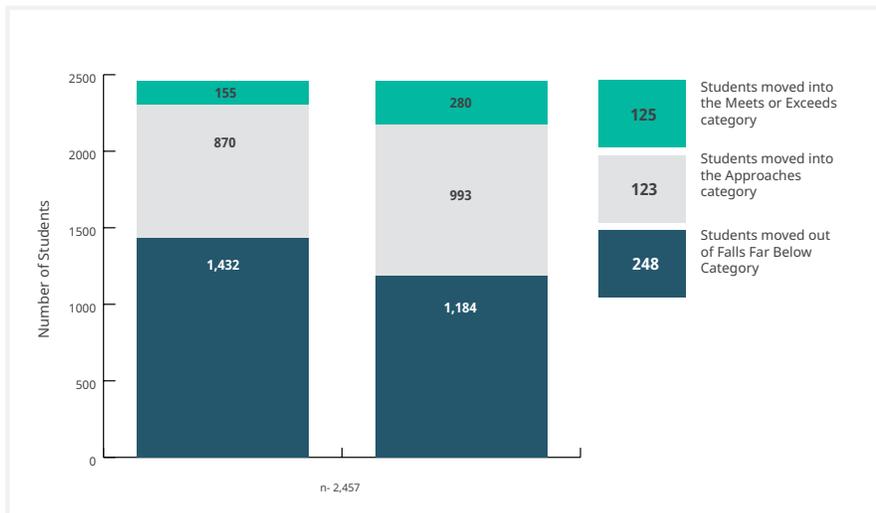
The same illustration could be made for other grades. The expected growth curves and the text complexity bands would be different, but the same fundamental facts would remain true: that students who are further behind have further to go to reach college & career readiness targets; that to reach those targets they will have to experience accelerated growth; and that reaching the targets may take at least two to three years, if not longer.

Additionally, the “Forecasted Readiness” column provides a forecast of a student’s likely readiness at the time of the high-stakes state assessment. Using the current Lexile measure and a proprietary forecasting algorithm from MetaMetrics, the Forecasted Readiness section shows the probability that a student’s Lexile measures will fall into each of the four readiness categories at the time of the state assessment.

Are My Students Experiencing Enough Growth?

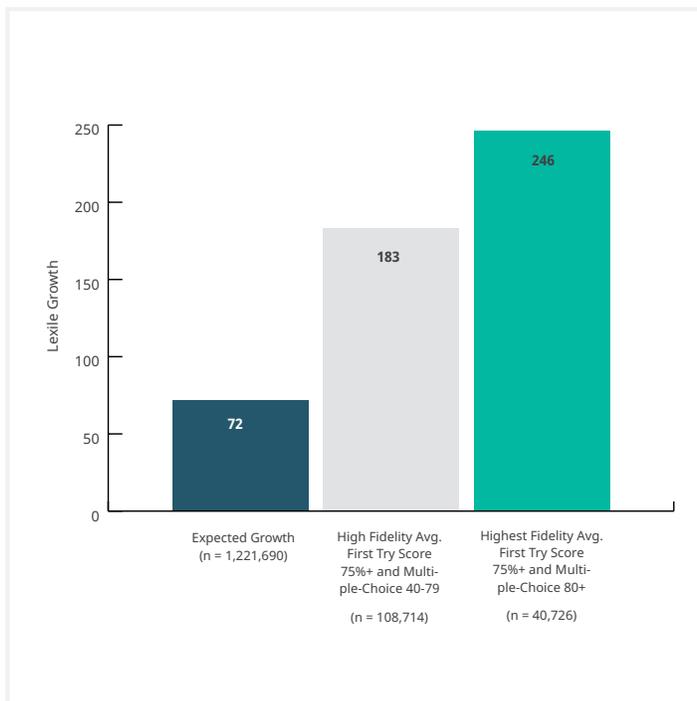
The answer depends on the goals you have set, which depend on where your students currently stand with respect to the college and career readiness targets for their grade level. In general, your school system is on the right track if more and more students meet college and career readiness targets as the school year progresses.

Figure 6 is an example that shows the number of students in the college and career readiness proficiency ranges described in Table 1 above. In this example, the number of students who meet or exceed college and career readiness targets is 155 during the Initial Readiness Forecast (which took place at the start of the school year). The data from the End-of-Year Readiness Forecast shows an increase of 125 students, yielding a total of 280 students. This is a significant increase for the district which clearly shows that their curriculum is accelerating growth.

FIGURE 6 SAMPLE: How Many Students Progressed Toward College and Career Readiness Targets?

It is also important to look at the students who are in the Approaches category. Are they moving up, as well? In Figure 6, it can be seen that 123 more students moved into the Approaches category between the two time points. These students are also experiencing accelerated growth. While they may not reach their college and career readiness targets this school year, they may be on a path for meeting the college and career readiness targets in future years.

Another way to determine if your students are experiencing accelerated growth is to compare their actual growth to their expected growth. Figure 7 shows a comparison between actual and expected growth for students who are using Achieve3000 Literacy with high fidelity. In this example, actual growth exceeded expected growth by more than double, representing significant acceleration. These students are likely on track for meeting college and career readiness targets in the foreseeable future.

FIGURE 7 National Lexile Study: Expected vs. Actual Growth with Achieve3000 Literacy

Students who used the program with Highest Fidelity achieved over 3X their expected Lexile gains, while students who used the program with High Fidelity achieved over 2.5X their expected Lexile gains.

Students who completed two or more Multiple-Choice Activities per week and demonstrated an Average First Try Score of 75% or greater on the Multiple-Choice Activity questions (Highest Fidelity) **exceeded the expected growth of the overall sample by an average of 174L.**

Students who completed an average of at least one but fewer than two Multiple-Choice Activities per week and demonstrated an Average First Try Score of 75% or greater (High Fidelity) **exceeded the expected growth of the overall sample by an average of 111L.**

How Do I Set Growth Targets?

There is no one right pathway to college and career readiness. Schools and districts vary in their student demographics, curriculum, and resources—all factors that can impact their ability to accelerate students' skills from grade to grade.

The critical objective is to facilitate constant and consistent acceleration in learning for every student, every year. Each grade level's curriculum and instruction should be designed, measured, and modified to ensure that the classroom experience accelerates student reading ability beyond the expected gains.

Students who start significantly behind should have an ongoing experience of maximum acceleration in each grade level. However, all students require constant and consistent acceleration if they are to maintain skill growth aligned to the college and career readiness trajectory, ending with the ability to read text at 1300L—the benchmark for college and career readiness—by the end of high school.

A best-practice plan for creating a pathway for college and career readiness is to:

- ✓ Evaluate acceleration within each grade for specific groups of students.
- ✓ Establish acceleration targets for each group and plan for a curricular and instructional approach to meet the acceleration goals.
- ✓ Evaluate at midyear and in late spring to course-correct if acceleration is not taking place.

Table 2 shows an example plan for groups of students in grades 5 and 6.

TABLE 2 SAMPLE: A Vertical Articulation Plan by Grade Level for College and Career Readiness

Not on Track	
Grade 5	
Target Starting Lexile	830L
Expected Lexile Growth (100%)	+100L
Target Growth: General Education Students	+150L
Target Growth: Students Starting <2 Years Behind	+200L
Target Growth: Students Starting \geq 2 Years Behind	+275L
Grade 6	
Target Starting Lexile	920L
Expected Lexile Growth (100%)	+80L
Target Growth: General Education Students	+100L
Target Growth: Students Starting <2 Years Behind	+150L
Target Growth: Students Starting \geq 2 Years Behind	+200L

Table 3 can be helpful in setting growth targets for students. The data in this table represent norms based on historical data collected by MetaMetrics, whose Lexile Framework is the most widely adopted reading measure in use today (MetaMetrics, 2017). For each grade level, two rows of data are provided, one for a Lexile measure at the 25th percentile of the Lexile normative sample and a second for a Lexile measure at the 50th percentile of the Lexile normative sample. The blue column shows the expected growth for each group. The dark green column shows the growth needed to reach the lower bound of the grade-level college and career readiness target. The teal column shows the growth needed to reach the upper bound of the grade-level college and career readiness target.

TABLE 3: Expected Reading Gains vs. Reading Gains Needed to Reach College and Career Readiness Targets

Grade	CCR Target Range	Student Percentile	Typical Student Lexile Measures at the Beginning of the School Year	Annual Expected Reading Gains	Annual Growth Needed to Reach the Lower Bound of the CCR Target Range	Annual Growth Needed to Reach the Upper Bound of the CCR Target Range
2	420L - 650L	25th	100	280	320	550
		50th	290	260	130	360
3	520L - 820L	25th	355	235	165	465
		50th	530	220	Meets	290
4	740L - 940L	25th	570	220	170	370
		50th	735	205	5	205
5	830L - 1010L	25th	745	95	85	265
		50th	900	100	Meets	110
6	925L - 1070L	25th	835	80	90	235
		50th	990	80	Meets	80
7	970L - 1120L	25th	910	65	60	210
		50th	1060	65	Meets	60
8	1010L - 1185L	25th	970	60	40	215
		50th	1125	60	Meets	60
9	1050L - 1260L	25th	1025	50	25	235
		50th	1180	50	Meets	80
10	1080L - 1335L	25th	1075	45	5	260
		50th	1230	45	Meets	105
11	1185L - 1385L	25th	1115	45	70	270
		50th	1270	45	Meets	115

For example, a student in Grade 8 with a Lexile measure of 970L at the beginning of the school year will need to experience growth of 215L to reach the upper bound of the college and career readiness range. His expected growth is only 60L, so he needs significantly accelerated growth (an additional 155L) to hit the target. This may not be a realistic one-year target, so an educator may choose to set a lower, but still accelerated, target that will set the student on a path for reaching the target the following year, or perhaps the year after that, depending on the student's motivation and persistence.

Note that a student with a Lexile measure at the 50th percentile of Grade 8 (with a Lexile measure of 1125L) should meet the upper bound with expected growth, meaning that no acceleration is needed.

How Can Accelerated Growth Be Achieved?

Reaching the ambitious goals of the new college and career readiness standards will require new ways of teaching students. Above all, it will require ensuring that students learn the skills and strategies necessary to tackle increasingly complex texts as they move through each school year and across grades. For students to succeed, they not only need more exposure to texts that challenge them, but also the scaffolding and direct instruction to help them navigate this more difficult terrain.

Achieve3000 has developed an instructional model to address this instructional challenge. This consists of two parts: independent work at a student's individual reading level and guided practice with grade-level text.

Regular practice with text matched to their reading level enables students to develop the strategies they need to independently comprehend grade-appropriate content. Using a proprietary engine, Achieve3000 Literacy first identifies each student's Lexile measure and then delivers the same grade-appropriate lesson to the entire class while simultaneously tailoring it to each student's individual Lexile measure. As students work through lessons, the system continually monitors student performance and automatically adjusts Lexile levels accordingly, delivering text of greater complexity.



By working with this precisely tailored text, students are able to develop stamina with nonfiction materials. Achieve3000 Literacy lessons contain various sources of information, so students can practice synthesizing information from multiple sources of informational text, including articles, charts, graphs, timelines, maps, etc. Throughout each lesson, built-in tools promote best practices in close-reading techniques and reading comprehension strategies.

While working at one's reading level is important for developing reading strategies, it is also critical for students to interact with text that is sufficiently complex for their grade. With Achieve3000 Literacy, students have access to grade-level complex text with the Stretch Article. This version of the lesson focuses on the same topic that students read at their Lexile levels but is written with more detail, greater text complexity, and more advanced vocabulary.

Under teacher direction, students interact with targeted portions of the Stretch Article for the explicit purpose of responding to a written prompt. Repeated readings help students build strength with complex text and develop close-reading strategies to use when they encounter text that is beyond their comprehension level.

How Do I Track Growth In Achieve3000 Literacy?

Achieve3000 Literacy continually monitors student growth via ongoing and embedded assessments. It all starts with the LevelSet™ pre-test, a universal screener for the reading comprehension of nonfiction text, which quickly identifies each student’s initial Lexile reading level. As students complete lessons, embedded formative Lexile assessments measure their performance. Each month, Achieve3000’s proprietary system automatically adjusts students’ Lexile measurements based on these formative assessments. Then, at the end of the school year, students take the LevelSet post-test to provide a baseline measure of their Lexile growth. Performance and usage data is reported back to educators via Achieve3000’s real-time reports and interactive data dashboard.

Two key reports in Achieve3000 are helpful for tracking student progress toward college and career readiness targets: the **How has Lexile reading measure performance changed over time?** report and the **How likely are my students to be on track for college and career when the high-stakes test is administered?** report.

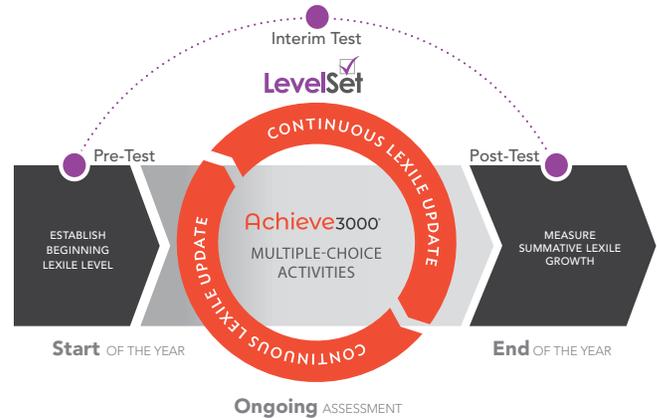


Figure 8 shows an example of the **How has Lexile reading measure performance changed over time?** report. The report displays the monthly Lexile measurements for students up to the current period. The “Initial Expected Post-Test Score” shows the Lexile post-test score that would be forecasted based on the student’s LevelSet pre-test score, and the “Current Expected Post-Test Score” shows the Lexile post-test score that is forecasted based on the student’s most recent Lexile measure. If the latter is larger than the former, the student has experienced accelerated growth—that is, growth above what was expected.

FIGURE 8 REPORT: How Has Lexile Reading Measure Performance Changed Over Time?

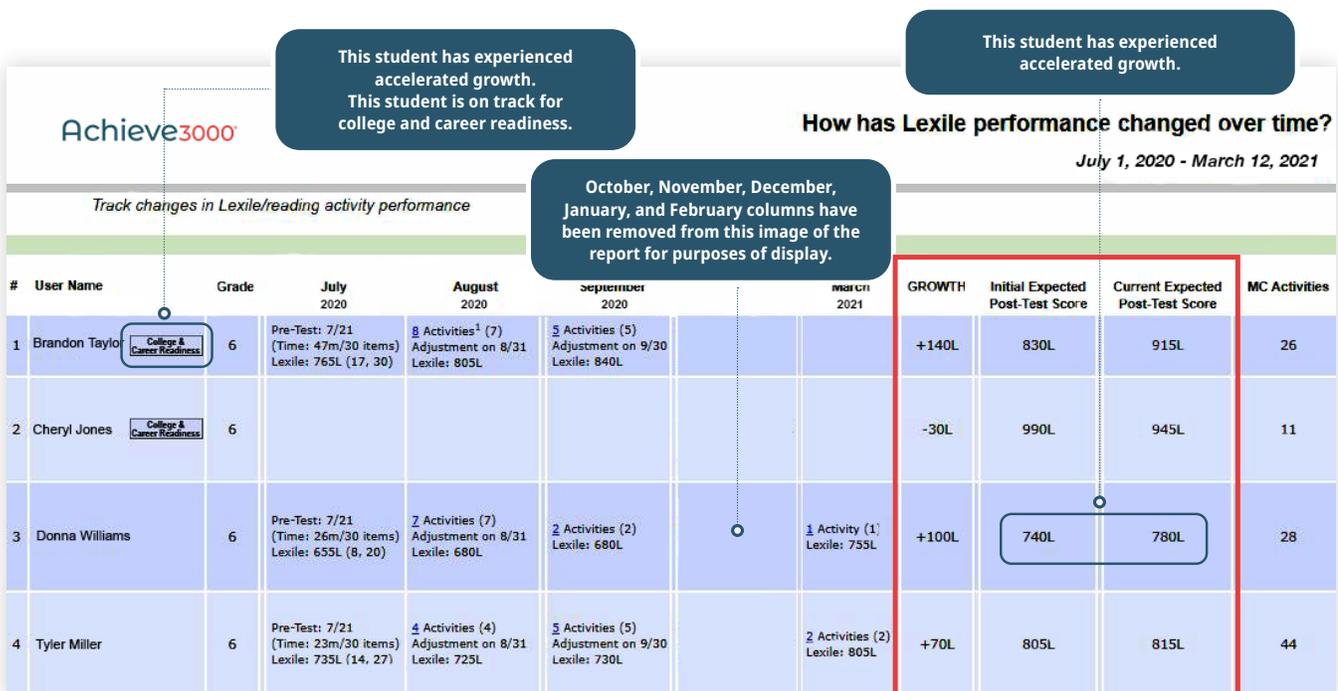
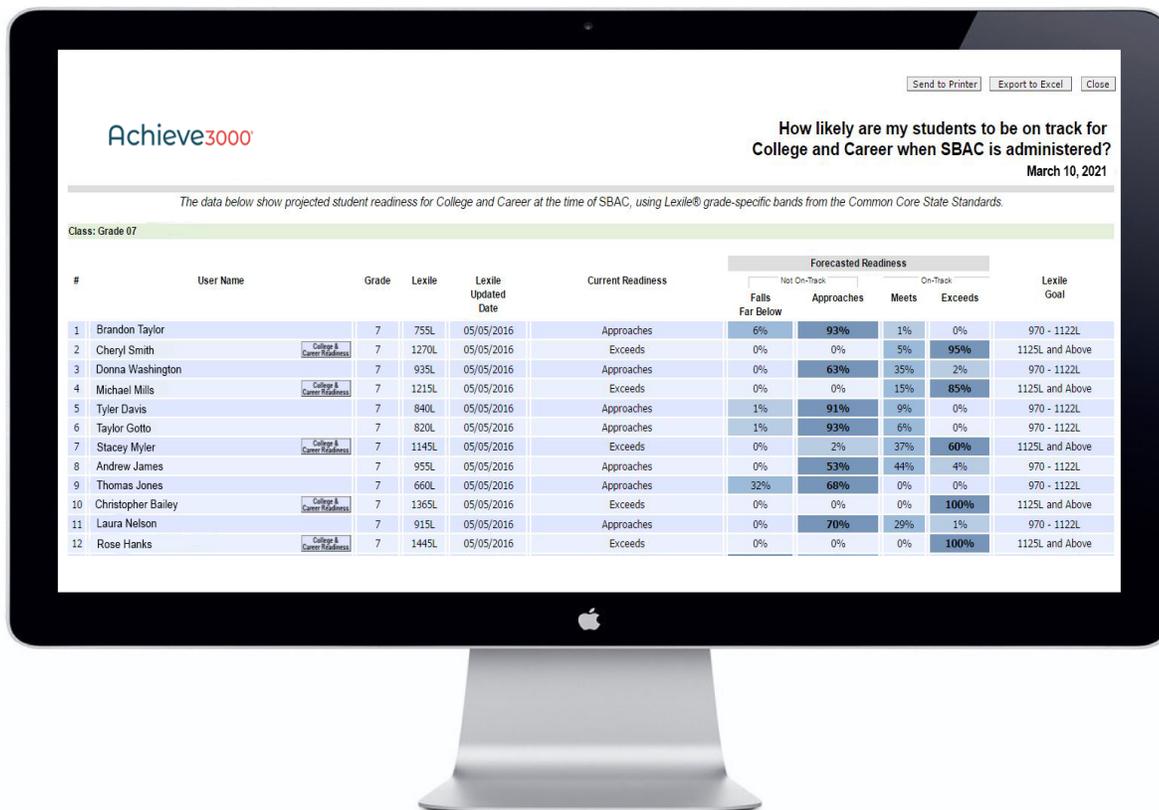


Figure 9 shows an example of the **How likely are my students to be on track for College and Career when the high-stakes state test is administered?** report. The “Current Readiness” column compares students’ current Lexile measures to Achieve3000’s college and career readiness proficiency ranges (presented in Table 1 above). Students with current Lexile reading measures classified as “Falls Far Below” or “Approaches” are considered “Not on Track” to be ready for the reading demands of college and the workforce by the end of high school. Students with current Lexile measures classified as “Meets” or “Exceeds” are considered “On Track” for college and career readiness targets.

Additionally, the “Forecasted Readiness” column provides a forecast of the students’ likely readiness at the time of your high-stakes state assessment. Using their current Lexile measures and a proprietary forecasting algorithm from MetaMetrics, the Forecasted Readiness section shows the probability that students’ Lexile measures will fall into each of the four readiness categories at the time of the state assessment.

While the numbers are not guaranteed predictors of future performance, the readiness category with the highest probability appears in bold, suggesting the student’s Lexile performance is most likely to fall in that category when the state assessment is administered. It is important to keep in mind that this is a dynamic report and will change as students’ Lexile measures change. Educators can use this information to see how students are progressing toward college and career readiness performance expectations as their state assessment nears and, in turn, use this information to make ongoing instructional decisions.

FIGURE 9 REPORT: How Likely Are My Students To Be On Track For College And Career When The High-Stakes State Test Is Administered?



Succeeding in School and Beyond

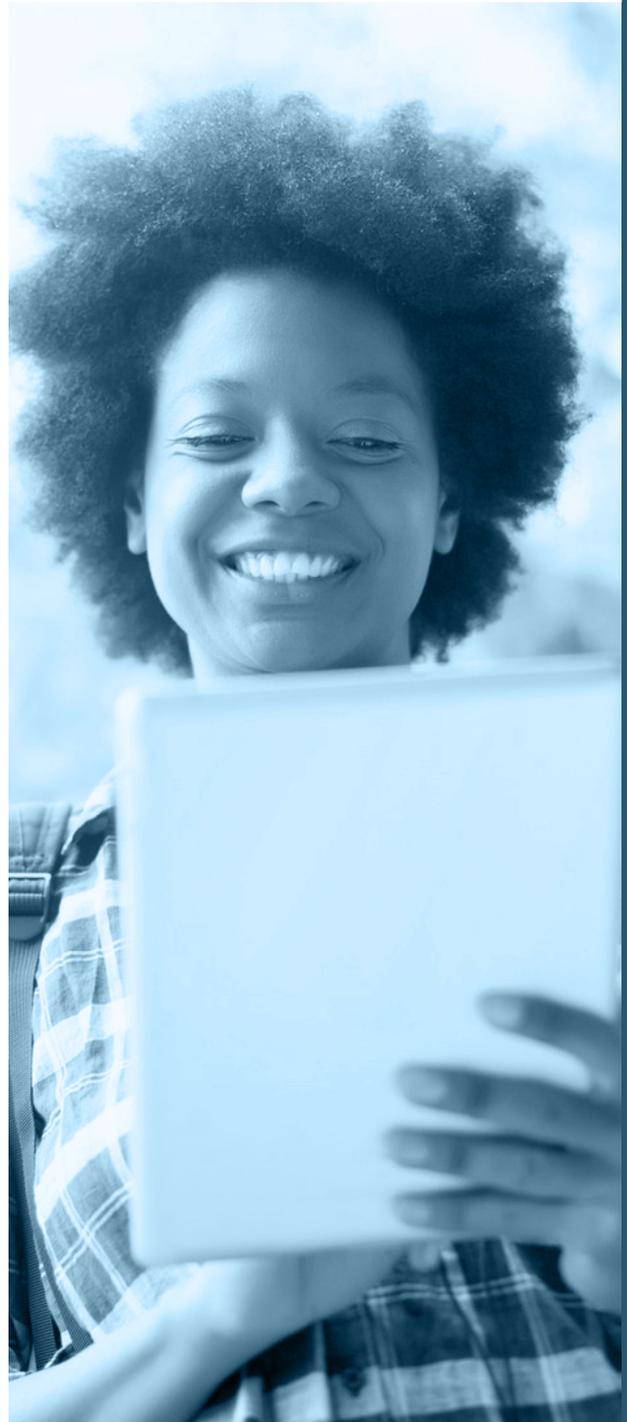
The college and career readiness goals articulated in today's more rigorous state standards are ambitious but not impossible.

By consistently accelerating growth over several years, all students—even below-level students who are currently Not on Track—can attain college and career readiness and graduate prepared for the reading demands of college and the workforce. Setting growth goals for students and closely tracking their progress are critical best practices for ensuring that all students accelerate their learning to the greatest extent possible.

Achieve3000 is committed to providing educators with the most effective learning solutions for reaching every student one on one, at their individual reading levels, and accelerating them on the path to college and career success.

Achieve3000 Literacy helps educators support and monitor college and career readiness in four key ways:

1. By offering a measure, the Lexile reading measure, that can be used to assess students' initial reading abilities and track student growth month by month.
2. By providing forecasts of college and career readiness that identify students who are Not on Track and need more intensive support to meet grade-level targets.
3. By delivering the differentiated content and instructional tools necessary for helping students develop the strong reading skills and strategies required to be college- and career-ready.
4. By supplying a proven methodology for accelerating literacy growth and empowering all students to tackle ever more complex texts—which is, after all, the primary goal of the college and career readiness standards.



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To learn more about Achieve3000 Literacy,
please call **1-800-838-8771** or visit **[achieve3000.com](https://www.achieve3000.com)**

About Achieve3000 Literacy, an Achieve3000 Learning Platform Solution

Achieve3000 delivers a comprehensive suite of digital solutions that significantly accelerate and deepen 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 students in grades PreK-12, Achieve3000 improves high-stakes test performance and drives college and career readiness.

Achieve3000[®]