"Learning is not a spectator sport."[1]

Today's teachers and administrators are expected to accomplish two different learning goals for all students to ensure they are college and career ready when they graduate from high school:

1. **Students must achieve at or above specific proficiency standards.**
2. **Students must grow each year so that they are on or above grade level.**

Success components to achieve these learning goals include: effective teachers, rigorous curriculum aligned to College and Career Readiness Standards and state standards, and learning activities that engage every student.

LTS Education System's *Kid's College* adaptive learning environment provides teachers with a supplemental resource aligned to Common Core and state standards to support increased achievement and accelerated growth for every student. In addition, *Kid's College* is fun and interesting for students all along the learning continuum.

The Challenge

At LTS, we know that engaging every student in important and rigorous learning is a challenge. This challenge has two key components. First, in any given classroom, students are performing at different levels. A teacher may have some students achieving two years below grade level, some students on grade level, and other students above grade level. So, meeting the needs of each individual student requires that teachers assess student achievement regularly and then provide differentiated instruction based on data. Second, in order for students to benefit from this differentiated instruction, the teacher must ensure that every student is engaged in rigorous content aligned to the Common Core State Standards (CCSS) and/or their state standards. While this differentiated instruction based on frequent assessments may be doable for teachers with small class sizes, it rapidly becomes difficult for teachers with larger class sizes, short planning periods, and resources not yet fully aligned to the CCSS or state standards.

The LTS Solution

For over twelve years, LTS has provided educators with a technology tool that combines a formative assessment process with rigorous, aligned learning content and electronic games.

[1] Chickering and Gamon, 1987

These three components ensure that students are working in the *Kid's College* program at their own achievement level, that they are appropriately routed through the *Kid's College* content as they master more and more rigorous content, and that they also periodically get rewarded for their hard work with time to play games included in *Kid's College*.

Data drives student work in *Kid's College*. Students begin work by taking what is essentially an online placement test to ensure that they automatically receive content at the level of rigor needed to help them grow. Teachers also have the ability to select and assign specific content standards, or skills within content standards, based on data already collected about their students' skill abilities. And, once a student begins work in the STRIDE adaptive mode of the program, his or her performance determines whether they need to move up into more rigorous content, stay where they are for more practice, or move down into less complex content.

Kid's College supports all kinds of learners. The work is self-paced so that slower readers are able to process what they are being asked to do at their own rate. The content has optional audio so that students who struggle with the English language can have the additional support of hearing the words, numbers, symbols, etc., that they are being asked to work through. Finally, the range of content at each grade level is sufficiently broad to engage low, average, and high-achieving students. And, of course, because of the adaptive nature of *Kid's College*, students who are considerably below or above grade level will rapidly move into the appropriately rigorous content.

Kid's College uses formative assessment to drive differentiated instruction and adaptive learning to remediate and accelerate learning, and to ensure the engagement of students in the rigorous content by rewarding them with a range of video games that students love to play.

At LTS, we think of our adaptive learning system as the perfect partner for every teacher. Our system takes the heavy lifting off teachers by continuous assessment and automatic adjusting of the learning path based on individual student needs. Teachers can monitor student progress through on-demand reports, which provide both graphic and numerical information about individual student progress, as well as aggregate reports for the classroom, school, and district.

Reports Available On-Demand for Kid's College

LTS understands that educators do not have spare time to try and make sense of data. All of the on-demand reports available through *Kid's College* are simple to understand and immediately actionable. We use graphs to show individual student growth in different content areas over time. We use the red, yellow and green stoplight convention to focus teachers on strengths and weaknesses for students in each class, across a grade, and across a district.

And, because the reports can be generated on demand 24x7, educators can monitor growth daily, weekly, monthly, by semester, etc. In the following *Evidence of Impact* section, we will use some of the reports to highlight how they help teachers better meet the needs of their students.

Evidence of Impact

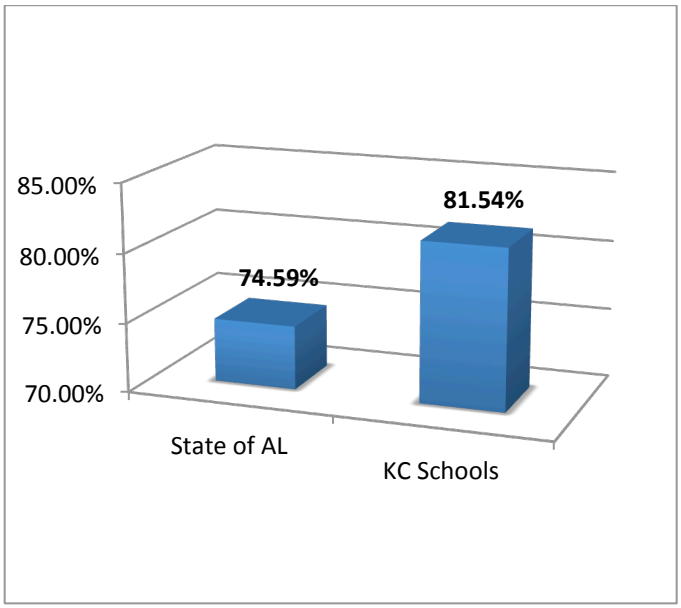
In this section, LTS presents data from case studies representing several different geographic areas and different contexts to demonstrate the universal learning benefits to students when they work in *Kid's College*.

State of Alabama

First, we have a high-level report on impact from the 169 schools in Alabama who used *Kid's College* during the 2011-2012 school year:

- For the entire State of Alabama, 74.95% of all public schools met 100% of their Annual Yearly Progress (AYP) goals in 2012.
- In the 169 Alabama schools that used *Kid's College*, 81.54% met 100% of their AYP goals in 2012. (6.59% more than the state overall.)
- Of these 169 schools using *Kid's College*, 21 that had not met their AYP goals in the previous school year did make their goals in 2012.

Figure A: Percent of AL Schools Meeting 100% AYP Goals in 2012



We can also look more closely at the data from a sample of the Alabama schools using *Kid's College* who made AYP in 2012, after not making AYP the previous year. For 5 of these schools who showed consistently high usage of *Kid's College* throughout the 2011-12 school year, the data show increases in the percent of students reaching proficiency or above, both in reading and mathematics, and across the grade levels. Figures B and C represent some highlights from these high users of *Kid's College* in Alabama.

Figure B: READING Increase in Percentage of Students in Levels III & IV (Average & Above Average) for a Sample of Alabama High Users of *Kid's College*

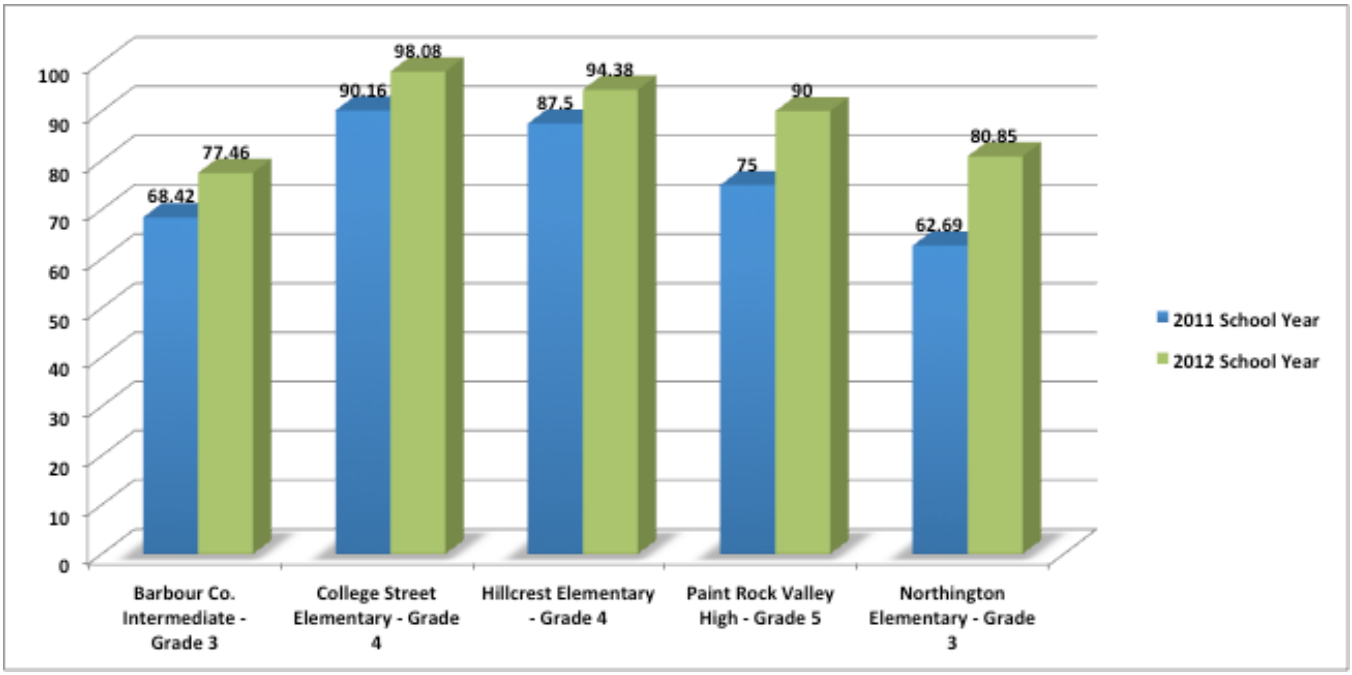
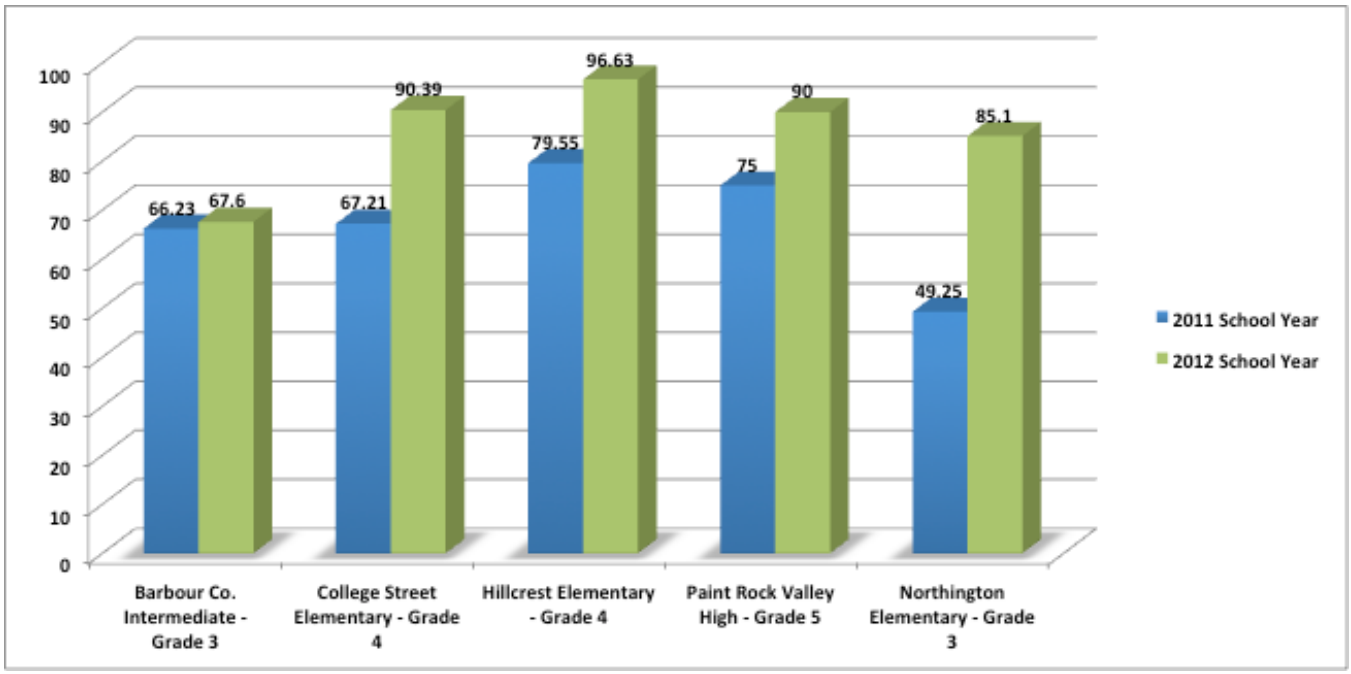


Figure C: MATHEMATICS Increase in Percentage of Students in Levels III & IV (Average & Above Average) for a Sample of Alabama High Users of *Kid's College*



Sunrise Elementary School, Brevard County School District, Florida

Our next case study is from Sunrise Elementary School in Florida's Brevard County School District. Sunrise Elementary has been a consistent star performer on the Florida Comprehensive Assessment Test (FCAT), with a higher percentage of students receiving a 3 or higher on FCAT than the state average.

Sunrise Elementary has integrated *Kid's College* into their curriculum as a supplemental program. Figures D and E on the following page summarize Sunrise Elementary FCAT results for 2011, compared with the State of Florida and the Brevard County School District. Figures D and E also highlight the connection between FCAT achievement and student time spent in *Kid's College.*

Figure D: Sunrise Elementary, Brevard County School District and State Achievement Data on FCAT Reading (Percent at Performance Levels 3, 4, and 5), as well as Kid's College Active Usage, in 2011

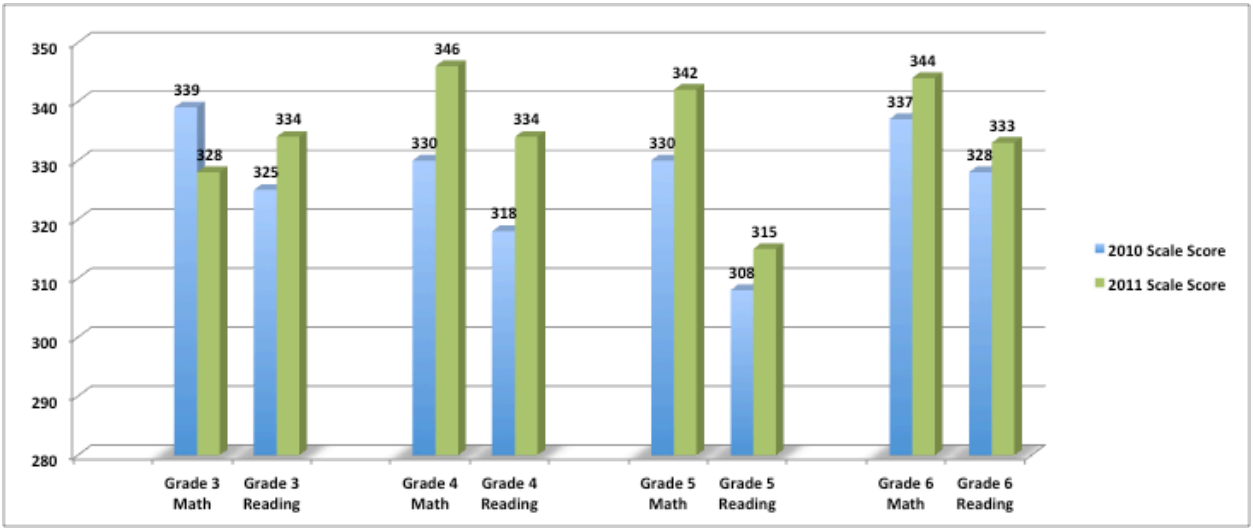
Grade Level	Subject	State	Sunrise Elementary	Average Time in *Kid's College* in Minutes
3	Reading	72	77	9,185
4	Reading	71	85	5,424
5	Reading	59	73	7,165
6	Reading	67	81	5,707

Figure E: Sunrise Elementary, Brevard County Schools and State Achievement Data on FCAT Mathematics (Percent at Performance Levels 3, 4, and 5), as well as Kid's College Active Usage, in 2011

Grade Level	Subject	State	Sunrise Elementary	Average Time in *Kid's College* in Minutes
3	Mathematics	78	80	9,185
4	Mathematics	74	87	5,424
5	Mathematics	63	69	7,165
6	Mathematics	57	74	5,707

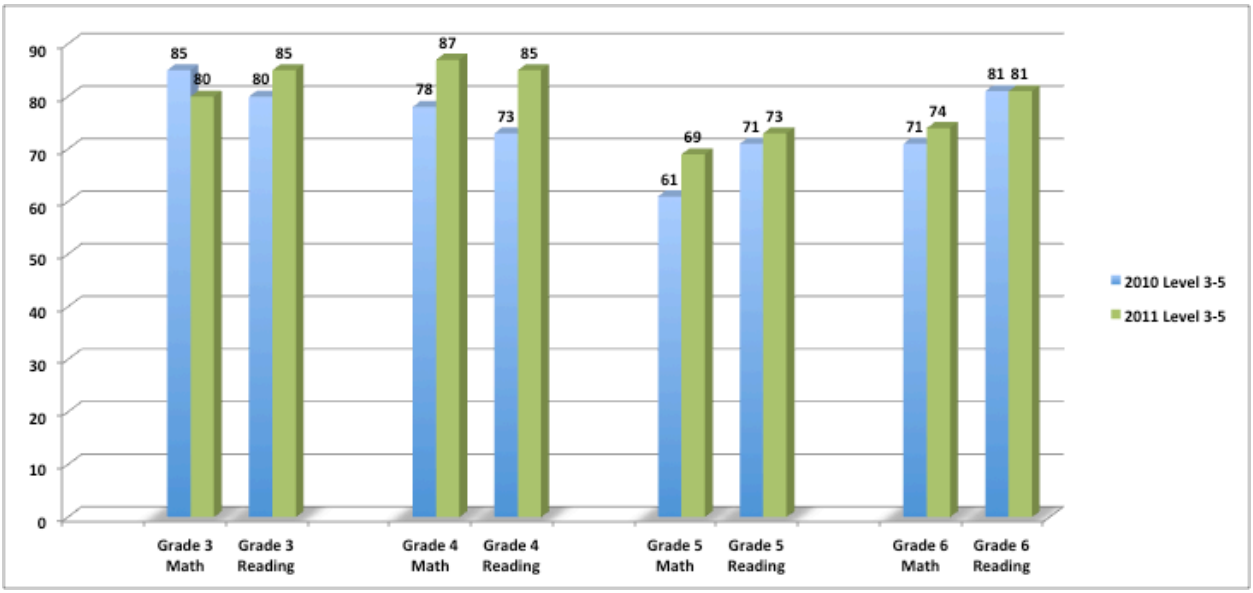
As shown in the tables above, Sunrise Elementary students scored above the district and state averages in reading at grades 3, 4, and 5 in spring 2011. Tying the district average in grade 6, Sunrise students outperformed the state average at grade 6. In mathematics, Sunrise outperformed the state at grades 3, 4, 5, and 6, and they outperformed the Brevard County average at grade 4. In science, Sunrise outperformed the state at grade 5. And, as shown in Figure F on the following page, in every subject and grade except grade 3 mathematics, the average scale score for the 2011 FCAT was higher than the average 2010 FCAT scale score.

Figure F: Comparison of FCAT Scale Scores from 2010 and 2011



Additionally, Figure G shows that in every subject and grade except grade 3 mathematics, the Level 3-5 score for the 2011 FCAT was higher than the 2010 score.

Figure G: Comparison of Level 3-5 Scores from 2010 and 2011



Although we cannot precisely quantify the degree of impact of *Kid's College* separate from teacher-led instruction and other instructional resources available to students, or even the impact of family on student learning, it is clear that there are positive correlations between student time in *Kid's College* and growth in both reading (r=.39) and mathematics (r=.32).

As noted by the principal of Sunrise Elementary, this success represents achievement and growth for a diverse student body.

In a note from the Sunrise Elementary principal to his staff, Principal Pichard wrote:

> "Great Job Sunrise! Remember these scores are a total of 'ALL' students tested…[and] include ESE, ELL and students who just entered Sunrise before testing."

How Did LTS Help Sunrise Elementary Achieve this Success?

The optimal use model is each student working in *Kid's College* for half an hour three times per week, every week that school is in session. Sunrise Elementary staff paid attention and monitored usage so that they knew students were working in the system long enough and often enough to compliment daily teacher-led learning. An analysis of usage data showed that the average amount of time Sunrise students spent working in *Kid's College* was more than 10,000 minutes per grade level.

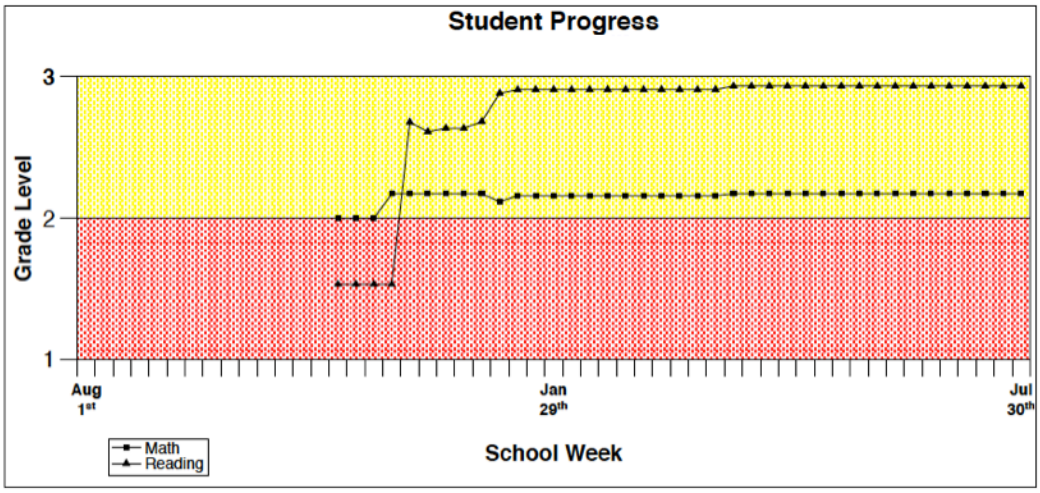
The specific use model that Sunrise Elementary followed was to make *Kid's College* available in the computer lab for grades 3-6 during their activity period schedule. For students in Kindergarten through grade 2, the students worked in *Kid's College* on classroom computers during the activity rotation. This use model worked well, and Sunrise students improved in both FCAT scores and performance.

How LTS helps educators understand and use data 24x7, on demand

Educators are also more interested in being able to monitor continuous improvement. In a way, the end-of-year snapshot is only helpful if teachers can reflect accurately about effective practices that resulted in high achievement scores. Being able to monitor progress routinely throughout the year helps teachers identify urgent learning gaps and intervene immediately.

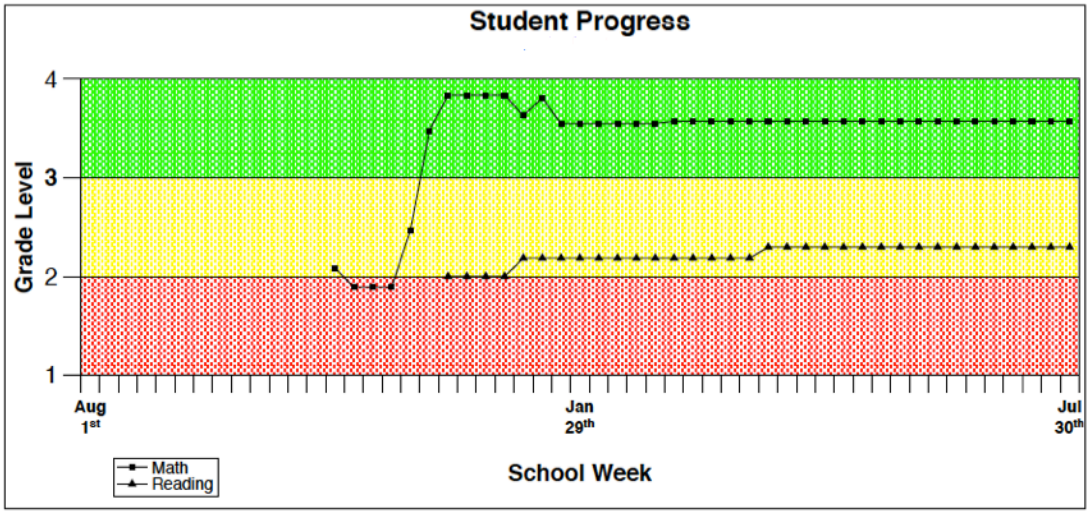
Monitoring students and groups of students over time takes effort, unless there is a technology solution like *Kid's College* with easy to read, simple to understand reporting. Because test scores are only meaningful relative to some context, LTS has produced student-level graphic reports that show how a student is progressing across the curriculum aligned to specific grade levels. For example, the graph in Figure H on the following page shows a second grade student (Student A) as he worked through *Kid's College* in both mathematics and reading.

Figure H: Student A, second grade student, working in *Kid's College*



This student began work in *Kid's College* the middle of November. In mathematics, he was performing at the beginning second grade level for three weeks, and then moved up into the lower quarter as he improved slightly. He maintained this level of performance until the end of the summer. A teacher using this information would know by the end of January that this particular student needed some extra help to move into more rigorous content. Perhaps some help from a reading specialist or some direct individual instruction would give this student the boost needed to move through the second grade content. In reading, however, this student began working in the middle of first grade content, and in four weeks jumped into middle to high second grade content. Student A is soaring in reading, while still struggling in mathematics.

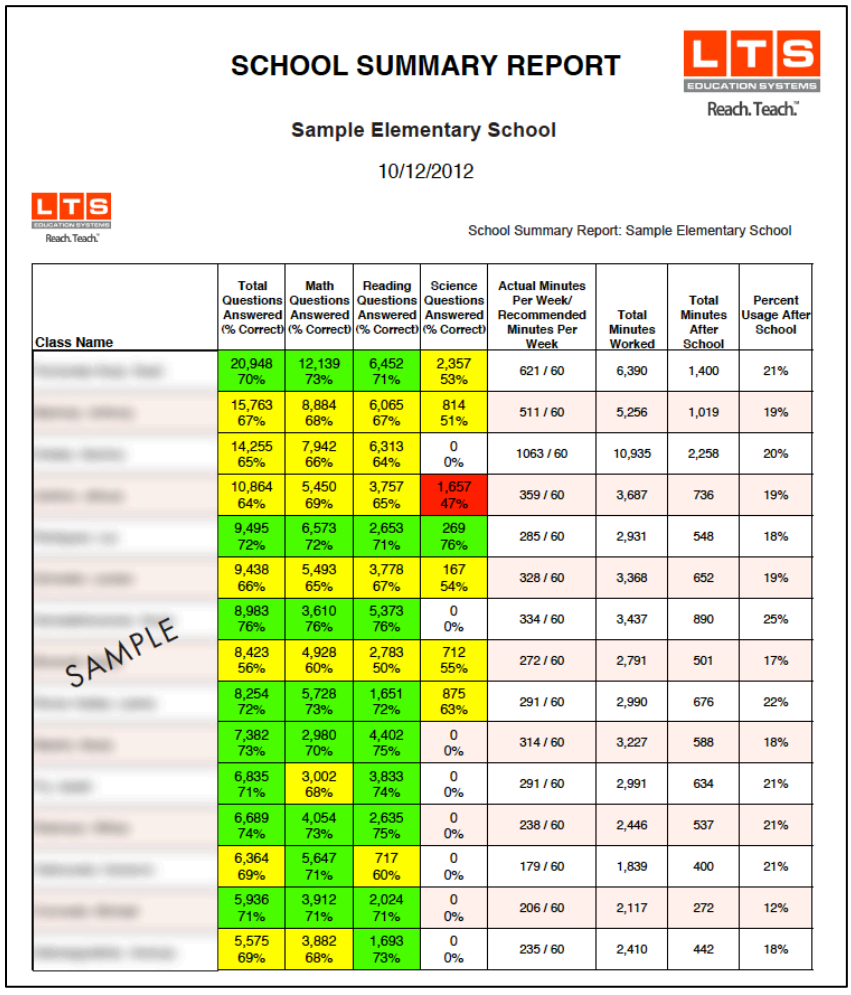
Figure I: Student B, second grade student, working in *Kid's College*



Student B, another second grade student, shows a different pattern. This student began working in *Kid's College* in mathematics only during late November. He began working in the low levels of grade 2 content and then slipped down into first grade content. What he learned there gave him the momentum to soar through grade 2 content and stay in the middle of grade 3 mathematics content through the end of the year. Student B apparently needed some one-on-one instructional support for reading in order to be ready for grade 3 on time.

Teachers also need to know how their students as a group are achieving over time. Figure J shows a sample school summary report for each class and grade level. Professional Learning Communities (PLCs) or grade level teams can use these reports to share best practices and intervene in effective ways where students are struggling.

Figure J: Sample School Summary Report Pages



SCHOOL SUMMARY REPORT

LTS EDUCATION SYSTEMS Reach. Teach.™

Sample Elementary School

10/12/2012

LTS EDUCATION SYSTEMS Reach. Teach.™

School Summary Report: Sample Elementary School

Class Name	Total Questions Answered (% Correct)	Math Questions Answered (% Correct)	Reading Questions Answered (% Correct)	Science Questions Answered (% Correct)	Actual Minutes Per Week/ Recommended Minutes Per Week	Total Minutes Worked	Total Minutes After School	Percent Usage After School
[redacted]	20,948 70%	12,139 73%	6,452 71%	2,357 53%	621 / 60	6,390	1,400	21%
[redacted]	15,763 67%	8,884 68%	6,065 67%	814 51%	511 / 60	5,256	1,019	19%
[redacted]	14,255 65%	7,942 66%	6,313 64%	0 0%	1063 / 60	10,935	2,258	20%
[redacted]	10,864 64%	5,450 69%	3,757 65%	1,657 47%	359 / 60	3,687	736	19%
[redacted]	9,495 72%	6,573 72%	2,653 71%	269 76%	285 / 60	2,931	548	18%
[redacted]	9,438 66%	5,493 65%	3,778 67%	167 54%	328 / 60	3,368	652	19%
[redacted]	8,983 76%	3,610 76%	5,373 76%	0 0%	334 / 60	3,437	890	25%
[redacted] SAMPLE	8,423 56%	4,928 60%	2,783 50%	712 55%	272 / 60	2,791	501	17%
[redacted]	8,254 72%	5,728 73%	1,651 72%	875 63%	291 / 60	2,990	676	22%
[redacted]	7,382 73%	2,980 70%	4,402 75%	0 0%	314 / 60	3,227	588	18%
[redacted]	6,835 71%	3,002 68%	3,833 74%	0 0%	291 / 60	2,991	634	21%
[redacted]	6,689 74%	4,054 73%	2,635 75%	0 0%	238 / 60	2,446	537	21%
[redacted]	6,364 69%	5,647 71%	717 60%	0 0%	179 / 60	1,839	400	21%
[redacted]	5,936 71%	3,912 71%	2,024 71%	0 0%	206 / 60	2,117	272	12%
[redacted]	5,575 69%	3,882 68%	1,693 73%	0 0%	235 / 60	2,410	442	18%

Figure J: Sample School Summary Report Pages (continued)

Mathematics

Class Name	Counting & Cardinality		Expressions & Equations		Functions		Geometry	
	Number Correct of Total	Percent Correct	Number Correct of Total	Percent Correct	Number Correct of Total	Percent Correct	Number Correct of Total	Percent Correct
[redacted]	518 of 749	69%	0 of 0	0%	0 of 0	0%	464 of 674	68%
[redacted]	260 of 340	76%	0 of 0	0%	0 of 0	0%	131 of 223	58%
[redacted]	43 of 52	82%	69 of 85	81%	0 of 0	0%	447 of 809	55%
[redacted]	0 of 0	0%	67 of 101	66%	58 of 101	57%	287 of 471	60%
[redacted]	736 of 927	79%	0 of 0	0%	0 of 0	0%	154 of 310	49%
[redacted]	377 of 515	73%	0 of 0	0%	0 of 0	0%	439 of 553	79%
[redacted]	337 of 405	83%	0 of 0	0%	0 of 0	0%	144 of 235	61%
[redacted]	472 of 587	80%	0 of 0	0%	0 of 0	0%	119 of 198	60%
[redacted]	23 of 26	88%	271 of 350	77%	0 of 0	0%	18 of 20	90%
[redacted]	0 of 0	0%	85 of 195	43%	34 of 55	61%	140 of 297	47%
[redacted]	373 of 471	79%	0 of 0	0%	0 of 0	0%	27 of 64	42%
[redacted]	56 of 66	84%	20 of 23	86%	0 of 0	0%	123 of 221	55%
[redacted]	461 of 569	81%	0 of 0	0%	0 of 0	0%	53 of 63	84%
[redacted]	5 of 5	100%	0 of 0	0%	0 of 0	0%	0 of 0	0%
[redacted]	1 of 1	100%	0 of 0	0%	0 of 0	0%	1 of 1	100%

LTS also helps our customers evaluate student growth. While our approach is simple, it can be useful in identifying subjects and grades where students are making growth and where they are stalled. Again, since these data are on-demand in real time, there will be no surprises for educators when the state test results and/or growth measures are reported.

Tennessee LEAP Boys & Girls Clubs Summer School Program

In Figure K, below, data from a Boys & Girls Club summer school program in Tennessee is presented. These data are taken directly from *Kid's College* on-demand reports. When an educator requests a report online, they can specify a beginning and ending date. The mean or average percent correct for a grade level is calculated for the last day of this date period. In the table for Figure K, the "pre-test" end date in May 15, 2012. The second column representing the end of the summer program is July 30, 2012. Exhibit K simply puts these data together and highlights the progress or growth (indicated in green) over the summer from May 15, 2012 to July 30, 2012.

Figure K: Boys & Girls Club Summer School Program in Tennessee
Growth in Math, Reading & Science

Grade	Math-5/15/12	Math-7/30/12	Growth	Reading-5/15/12	Reading-7/30/12	Growth	Science-5/15/12	Science-7/30/12	Growth
K	81%	81%	0	72%	74%	2%	NA[2]		
1	73%	76%	3%	69%	74%	5%	NA		
2	75%	82%	7%	73%	75%	2%	NA		
3	77%	78%	1%	72%	80%	8%	36%	51%	15%
4	76%	76%	0	70%	77%	7%	37%	41%	4%
5	67%	72%	5%	65%	70%	5%	39%	52%	13%
6	66%	72%	6%	64%	76%	12%	44%	47%	3%
7	65%	73%	8%	61%	73%	12%	36%	36%	0%
8	76%	68%	-8%	67%	76%	9%			

Figure K represents a key fact. Students often lose ground in their learning over the course of the summer. These TN Boys & Girls Club Members, in contrast, gained ground in reading at all grades, in mathematics at all but grades K, 4, and 8; and in science at all grades except 8.

Why Does the LTS / Kid's College System Work?

Kid's College is fun for students. Because it is fun, they persist and are engaged in the academic work because that work earns them a specific amount of time in the games environment.

As one teacher at Sunrise Elementary said, "*Kid's College* is a great program that my students enjoy using at home and at school. The sports aspect makes practicing and applying what they have learned more fun. I love the reports that I receive via email, which help me see the areas in which they are doing well and areas in which they need more support."

And by providing a different approach to learning, *Kid's College* reinforces the excellent instruction already provided by teachers. A fourth grade teacher at Sunrise Elementary said that *Kid's College* provides students with another "strategy arrow" to add to their "quiver of strategies" in helping students. Educators know that by pairing academic learning with games in an adaptive environment, students are engaged, and their achievement increases. Sunrise Elementary has proven this to be true once again.

[2]Science data is NA for K-2 because Science content is not currently available for those grades. For grade 8, Club Members did not participate in Science content.

Can Kid's College Work for You?

It is often the case that when innovations are tried in different environments, they do not work equally as well. Often the success and the impact are the direct result of the program staff. This is not the case with *Kid's College*. Here is another example of the positive impact that *Kid's College* has on achievement and growth.

John A. Walsh Elementary School, Chicago Public School District

John A. Walsh Elementary in Chicago serves approximately 460 students. Twenty-five percent are English Language Learners, and 20 percent are designated as Special Education students. Based on the Illinois Standards Achievement Test (ISAT), Walsh Elementary's school composite "Meets Expectations" scores improved ten times more than the CPS district's growth. And, the 2012 composite "Meets Expectations" ISAT score was 13 percentage points higher than the district's.

Like Sunrise Elementary, Walsh staff embraces a blended learning model that incorporates *Kid's College* adaptive web-based curriculum for mathematics, reading, and science to supplement the direct classroom instruction of their staff. Students are given 24-7 access to *Kid's College*.

End-of-year ISAT results for 2011-2012 showed that Walsh Elementary students made impressive gains, outperforming the district and peer schools in their network. Overall, Walsh students increased their ISAT scores in all three content areas tested.

Figure L: Walsh Elementary ISAT Growth in "Meets Expectations" from 2011 to 2012

John A. Walsh Elementary ISAT Growth			
"Meets Expectations"	**2011**	**2012**	**% Increase**
Reading	73%	82.2%	9.2
Mathematics	81%	84%	3.0
Science	58%	86%	28.0

The improvement in science perhaps indicates the serious need that this school had for appropriate science supplemental resources. In this instance, *Kid's College* provided invaluable additional learning resources for students.

Research on effective models of learning proves it is difficult to motivate and engage children of poverty with traditional instructional approaches. Today's digital native students desire a customized learning experience that is also challenging, rewarding, and fun. Data from Sunrise Elementary and John A. Walsh Elementary both prove this point.

The Walsh Perspective on Kid's College

The Literacy Director at Walsh Elementary shared this perspective:

> "*Kid's College* is a fantastic, well-rounded program. Our students love it; our parents love it; our staff and administration think it's great. We decided to go with *Kid's College* because it really focused on the Common Core State Standards.
>
> *Kid's College* allows our teachers to really focus instruction for students at the intermediate level and the advanced level, to push kids where they needed to be pushed, and even reteach some of the skills they were teaching throughout the day."

Krish Mohip, Principal of Walsh Elementary, said this:

> "When we go back and think about what we did differently last year, my teachers felt that one of their major lifts for achievement was the daily intervention. All of them loved using the *Kid's College* program, and we really felt it was a good way to engage the kids."

What is Inside Kid's College?

The curriculum in *Kid's College* is all original and does not appear in any other commercial product. In reading, mathematics and science, every passage and question was authored and/or reviewed by a certified teacher. The alignments were each developed and reviewed by certified teachers.

In reading, the passages have all been evaluated using industry standard readabilities methods and are assigned to grade level based on their text complexity. In our curriculum, we have a mix of literary and non-literary selections, with some poetry as well. The non-literary selections represent both science and social studies content, including biographies and expository text related to grade level topics.

LTS also offers a pre- and post-test formative assessment series called the GAP Assessments. These pre-test assessments should be used at the beginning of the year to drive each student appropriately into the adaptive learning engine called STRIDE. The post-test GAP assessments should be administered at the end of the year as a true measure of growth for the entire school year. This information, combined with test scores and test-score generated growth measures, will provide a comprehensive view of student achievement and growth.