Rapid Cycle Pilots:

Using Edtech to Support English Learners

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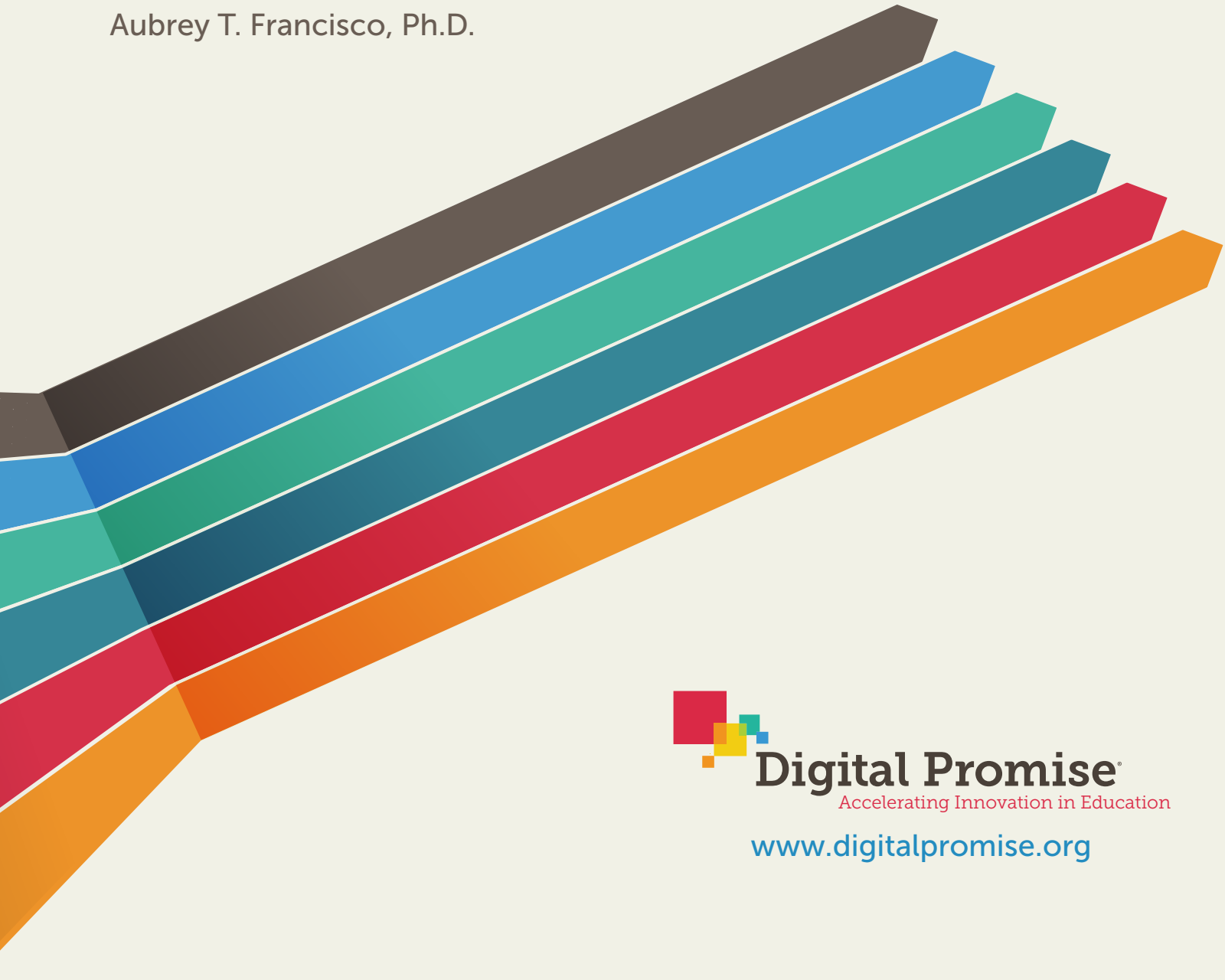

Digital Promise
Accelerating Innovation in Education
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Executive Summary

Over the past academic year, Digital Promise sought to support school districts in improving their educational technology (edtech) piloting practices and decision making by guiding product implementation studies of tools that support English Learners (ELs). Digital Promise learned that districts in the League of Innovative Schools were seeking edtech tools to support ELs, and more broadly, evidence-based edtech solutions. The goals of this effort were to better understand the edtech tool selection processes for districts searching for tools to support ELs, to refine district edtech piloting practices, and to generate additional edtech efficacy research about products targeted toward ELs in the marketplace.

Beginning in the summer of 2016 and continuing through the academic year, Digital Promise worked with two League of Innovative School districts to identify instructional needs, select appropriate edtech tools, and plan for and conduct two pilot studies of two different EL edtech products. One district piloted BrainPOP ESL with 205 middle and high school students who were newcomers, or recent immigrants,[1] as a tool to support English language development. Another district piloted Achieve3000 with 525 elementary and middle school ELs to improve reading comprehension among students at risk of becoming Long Term English Language Learners.[2] In addition to gathering and analyzing data to support the pilots, Digital Promise facilitated communication between the districts and product developers to emphasize the value of feedback loops and iterative product improvements.

The study focused on investigating the pilot implementation process as well as student and educator outcomes after using the two tools.

The following process and outcome recommendations, based on key findings from this study, can help these and other districts, as well as product developers, conduct successful edtech pilots in the future.

- **Focus on Study Design to Generate Meaningful Outcomes**: In order to achieve meaningful results, it is important to be intentional about the selection of a study design. This process includes: articulating explicit pilot goals, considering the possible inclusion of a comparison group, determining the types of data to be collected and considering which data collection methods will effectively evaluate a tool's unique capabilities and ultimately determine the success of a pilot. Students using Achieve3000 showed significant gains in Lexile score using the tool's LevelSet

assessment compared to students who did not use the tool. However, because the assessment was embedded in the tool itself, the gains could be attributed to familiarity with the tool and the assessment. Planning for data collection early could mitigate this challenge.

- **Involve and Support Educators**: Include educators and district leaders in conversations about potential edtech implementation plans to enable educators to plan for future instructional and curricular use of the edtech tool. Similarly, maintain professional development opportunities throughout the pilot and consider opportunities for educator collaboration when designing the pilot. For example, coaches supporting educators in using BrainPOP ESL struggled to interpret data provided by the tool and could have benefited from professional learning throughout the product's implementation. Educators in both pilots reported collaboration with peers was beneficial to implementation.

- **Create a Funding Contingency Plan:** Involve multiple district leaders in determining where funds will come from to cover the potential cost of an edtech tool before engaging in a pilot study. In one district, the person leading the pilot changed in the middle of the study, which led to uncertainty regarding how the product might be purchased for continued use. The challenge could have been avoided if multiple leaders had been involved in the rationale and pilot planning.

- **Maintain Open Lines of Communication and Feedback:** Establish and maintain open and positive lines of communication between product developers, district leaders, and educators to share insightful feedback and plan for potential negotiating and purchasing. Two-way communication allows educators and district leaders to suggest improvements to product developers on instructional content, appearance of content in educator and student dashboards, and the appearance and functionality of the usage data metrics generated by a tool. Both Achieve3000 and BrainPop ESL are in the process of making modifications to their tools based on the feedback received from educators and students through this pilot process.

- **Share Results:** Share pilot results with other districts to help them understand the efficacy of an edtech tool and to provide them with potential tips for conducting meaningful studies. For example, the results of these two pilot studies provide information to other educators considering using Achieve3000 or BrainPop ESL to support ELs. The results of our Achieve3000 pilot found that student and educator engagement and satisfaction was high for those using the tool. In addition, EL students using the tool experienced significant gains compared to EL students who did not use the tool. Results of our pilot study of BrainPop ESL showed that middle school students and educators felt much more positive about the tool than high school students and educators. None of the students involved in the pilot demonstrated significant learning growth over the course of the pilot; however, without a comparison group, it is difficult to contextualize those results. In addition to information on specific tools, implementation results can help other district leaders improve their piloting practices. District leaders value the experiences their peers have and can make modifications in terms of roll-out and professional support based on insights from previous pilots.

Introduction

School districts across the United States are rapidly integrating education technology (edtech) products into curriculum and teaching practices in an effort to improve student learning, build 21st century skills, and better achieve differentiated instruction.[3]

Many districts are using technology to address equity challenges that traditionally underserved student groups often face.[4] Across the country, district leaders and educators are using edtech products to offer more flexibility and learning supports to better meet the diverse needs of students across classrooms.[5] Specifically, multiple districts are using edtech tools to better support and teach ELs.

In the 2014-15 school year, nearly 10 percent (or 4.6 million) of the students attending public K-12 schools in the United States were ELs.[6] These students bring a diverse array of cultural backgrounds and life experiences. California has consistently had the largest population of EL students for the past five years.[7] In the 2014-15 school year, California reported that 22.4 percent of its public K-12 students were ELs.[8] Although there are substantial numbers of students learning English throughout the country, systemic support for students is limited, particularly in teacher training, leading to a national graduation rate of 62.6 percent for ELs compared to an overall national graduation rate of 83.0 percent.[9] States' varied graduation levels for ELs serves as further evidence that the system is failing this student demographic.[10] For example, in the 2014-15 school year California graduated 65 percent of EL students in four years, whereas Texas and New York graduated 71 percent and fewer than 34 percent of English learners, respectively, in four years.[11]

The graduation rates of ELs vary throughout the country for a variety of reasons, including differences in teacher quality, preparedness, and support as well as the system's inattentiveness to the learner variability and cultural diversity within the student population.[12] To be effective, EL programs should both provide substantial teacher professional development and training and also consider the variability within the targeted student population.[13] Many ELs enter U.S. public schools upon immigration at the middle or secondary level with minimal or no English proficiency. Through no fault of their own, students may have experienced gaps in their formal schooling.[14] With low levels of English literacy, adolescent newcomers face challenges related to academic content acquisition, as it is often exclusively delivered in English, and through the lens of a new culture, making school and content engagement difficult.[15]

With EL numbers increasing annually, and four-year high school graduation rates trailing behind national averages due to systemic barriers, some of the school districts that Digital Promise works with have focused their categorical budgets on purchasing edtech products intended to improve English language acquisition and educational outcomes for EL students.[16] However, with an estimated $4.7 billion spent in U.S. K-12 edtech in 2015, these districts are also looking to evaluate the efficacy of

edtech products to ensure that the tools they invest in will lead to improved learning outcomes and/or student experiences.[17] With a perceived overload of available edtech options, and limited evidence in the edtech marketplace, some districts conduct their own pilot studies to make informed purchasing decisions.[18] However, these pilots tend to be informal and typically generate insufficient information for purchasing decisions.

Running a pilot is often a challenge for districts as it requires thorough research in selecting a product, articulating a pilot goal, designing a study and creating the necessary instruments, analyzing the findings, and determining whether the results indicate a need to purchase. To compound the challenges involved in conducting pilots, selecting an appropriate solution for EL students requires further consideration.

Few tools designed for ELs consider students' cultural and linguistic backgrounds, age, or interests. For example, programs that develop the English literacy skills that newcomers need rarely contain age-appropriate content for mature learners. Moreover, there is immense diversity within English learners' first language in two ways: 1) while Spanish is the most common first language, many ELs speak a language other than English or Spanish at home; 2) ELs have varied literacy levels in their first language.[19] These considerations require EL programs to account for varied literacy levels in any existing language. Many programs assume that English language acquisition remains the same, no matter the learner's first language. Yet, recent meta-analyses show that educational programs that incorporate ELs' home languages, by drawing connections between their languages and English, result in higher levels of academic success compared to ELs in English-only programs.[20] These results also suggest that a student's fluency in his or her first language impacts the rate of English acquisition and academic success.

In an effort to support districts in selecting and evaluating edtech products for ELs, Digital Promise, with the support of the Bill & Melinda Gates Foundation, worked with two U.S. public school districts to help them conduct their own pilot studies. Both districts are located in the San Diego, California area. These studies included over 700 students and 29 educators. One district piloted Achieve3000, a reading-based program that meets students at their individual English skill levels, in elementary and middle schools. The goal of this study was to improve reading outcomes for EL students at risk of becoming Long Term English Language Learners. The second district conducted a pilot in middle and secondary schools for newcomers using BrainPOP ESL, which provides instruction through animated videos that model conversational English. The goal of this study was to find a tool to support newcomers in middle and secondary school to improve their language and grammar skills.

This report considers results from these pilots and emphasizes best practices in choosing, piloting, and purchasing edtech tools for ELs. The goals of this report include:

- Presenting the unique considerations that districts searching for EL edtech programs must address when selecting an edtech solution;
- Gathering evidence about edtech products for future purchasing decisions;
- Comparing the implementation of the two products in the varied district contexts; and
- Disseminating best practices to support other districts in their efforts to pilot and evaluate EL edtech tools.

The research team used a mixed methods data collection approach customized to the districts' contexts and pilot goals. Still, the districts' contexts should be taken into account when applying the findings from this research to other settings.

School District and Product Selection

During the summer of 2016, Digital Promise reached out to district leaders from the League of Innovative Schools to identify districts interested in piloting edtech tools for ELs. Two districts were interested in conducting pilots to better meet the needs of their EL students.

Digital Promise met with leaders from each district to articulate their instructional priorities and goals for the pilot. Each district had distinct pilot goals and instructional needs. Digital Promise generated a list of eight English language learning tools that fit the district-specific parameters, including curricular goals, the technology environment, the required time commitment to train educators and implement the tool, student privacy policies, student age and learning level, and cost. From this list, Cajon Valley Unified School District chose to pilot Achieve3000 and Vista Unified School District chose to pilot BrainPOP ESL. Ten schools across the two districts, both located in the San Diego, California area, representing 726 students and 29 educators, participated in the pilot (see *Table 1* for additional details).

Table 1:

Overview of Participating Districts' Pilot Participants and the Piloted Edtech Products

School District	Product	Students	Educators	Grade Level	Pilot Goal
Cajon Valley	Achieve3000	521	13	ES, MS	Improve reading outcomes for EL students at risk of becoming Long Term English Language Learners.
Vista	BrainPOP ESL	205	16	MS, HS	Find a tool to support middle and secondary newcomers practice language development and grammar skills.

The two products are designed to support EL students differently. Achieve3000 is a reading-based program that provides students with individually-leveled articles that integrate phonics, vocabulary, and fluency practice along with linguistic scaffolds, through a focus on nonfiction science and social studies.[21] BrainPOP ESL models conversational English through animated movies in an effort to introduce grammar concepts and vocabulary words while building upon and reinforcing vocabulary, grammar, pronunciation, reading comprehension, and writing skills.[22]

Product Implementation

Although both pilots were conducted in large, suburban districts, the size, student demographics, and goals of each pilot varied substantially (see Table 2).[23] Cajon Valley involved over twice as many students in the pilot and included a comparison group. Cajon Valley conducted the pilot in elementary and middle schools while Vista's pilot included newcomers in middle and high schools. Predominantly, ELs in Vista speak Spanish at home, whereas Cajon Valley's ELs speak a number of diverse languages at home, including Spanish, Arabic, and Chaldean.[24] Cajon Valley focused on improving reading outcomes for EL students at risk of becoming Long Term English Language Learners. Vista articulated a different goal: to find a tool to support middle and secondary school newcomers in practicing language development and grammar skills.

Both districts applied similar implementation models; educators in both pilots used the edtech tools during class. Almost all educators agreed that the purpose of Achieve3000 was supplemental review and enrichment in Cajon Valley and Vista educators agreed that BrainPOP ESL was a supplemental tool focused on communication. While neither tool was intended to be a core curriculum tool, many educators indicated that they intended to use it as such, suggesting that there may have been confusion among educators about the purpose and goal of these pilots.

Professional learning varied between the two pilots. In Cajon Valley, Achieve3000 held a training session prior to the pilot. One-hundred percent of responding educators in Cajon Valley participated in professional development, with an average duration of 2 to 3 hours. Further, nearly 80 percent of respondents found that, to a great extent,

Table 2:
Overview of Participating Districts[25]

District	Number of Students	Number of Schools	% English Learners	% Free or Reduced Price Lunches
Cajon Valley	16,601	30	34	70
Vista	25,377	34	24	58

the professional development provided by Achieve3000 prepared them to pilot the tool. One-hundred percent of Vista's responding educators also indicated that they participated in professional development training, though over 40 percent of educators stated that the training lasted less than an hour. Over 85 percent of responding educators in Vista stated that the professional development was offered by district staff and the product developer, and nearly half of respondents said that the training only slightly prepared them for the pilot. Throughout both pilots, educators received ongoing support from the respective product companies.

Methodology

Although each district created a pilot goal unique to their context, Digital Promise designed instruments to capture changes in both educator and student knowledge, attitudes, and skills over the course of the pilot (Fall 2016 to Spring 2017).

Data collection instruments designed for students were reviewed and modified by the Center for Applied Linguistics to ensure the items and instructions were appropriate for ELs. Digital Promise collected data before, during, and after the pilots by administering educator and student pre- and post-surveys, conducting mid-year and post-pilot educator focus groups, and gathering product usage and pre- and post-assessment data (see *Table 3* on page 11). Many districts are not comfortable trusting product efficacy results from contexts different than their own, therefore Digital Promise captured district context variables, such as student demographics, technology environment, and educator readiness.

We intended to link student assessment and usage data to pre- and post-surveys through each student's unique identification numbers. Despite strong response rates in the pre-post surveys and collecting 100 percent of individual usage and assessment data in Cajon Valley, many students entered their identification numbers incorrectly. In addition, many instances of pre-post assessments were invalid, as there were zero or too few days between the tests. This substantially reduced the number of valid instances in which we were able to link surveys, usage, and assessment results. In Vista, there was a lower pre-post survey response rate and a large number of instances of incorrectly entered student identification numbers.

Further, many student identification numbers reported in the assessment data were missing from the usage data reported by BrainPOP ESL. Moreover, California is in the process of updating its assessments for measuring English language acquisition. This meant that the historically reliable assessment would not be disseminated and Digital Promise had to identify other techniques to measure student growth. In Cajon Valley, we measured student growth using a Lexile assessment developed by Achieve3000 and administered through their platform. In Vista, we used benchmark assessment scores to measure growth, which also provided Lexile scores.

Digital Promise cleaned and coded the quantitative components of the pre- and post-surveys administered to students and educators. Most of the survey questions required nominal or ordinal responses. In the instances of nominal questions, the responses were coded to equal numeric values, enabling us to analyze frequency. When the questions involved ordinal data, the responses were coded to equate to increasing numeric values; for instance, "Strongly disagree" equaled one and "Strongly agree" equaled four. In addition to running frequency analyses with the ordinal data, we also evaluated the means and ran pre-post t-tests to identify instances where mean differences were statistically significant. Choices that equated to "I don't know" or "Not Available" were coded as "system missing," and thus not included in the analyses.

Table 3:

Overview of Measures Used to Assess Product Efficacy

		School District	
Dimension of Product Efficacy	**Measure**	**Cajon Valley**	**Vista**
Comparison Group	Pre-Post Assessment Data	✓	
Student Knowledge	Usage Data	✓	✓
	Pre-Post Assessment	✓	✓
Student Attitudes and Skills	Usage Data	✓	✓
	Pre-Post Survey	✓	✓
	Classroom Observations	✓	✓
Student Engagement	Usage Data	✓	✓
	Pre-Post Survey	✓	✓
	Classroom Observations	✓	✓
Educator Attitudes and Skills	Pre-Post Survey	✓	✓
	Mid-Year and Post-Pilot Focus Groups	✓	✓
	Classroom Observations	✓	✓
District Context	Pre-Post Student and Educator Surveys	✓	✓
	Mid-Year and Post-Pilot Educator Focus Groups	✓	✓
	Classroom Observations	✓	✓

Digital Promise also cleaned quantitative assessment and usage data. We removed all instances where there were zero days between the pre- and post-assessment. In Cajon Valley, we removed students that took the pre-assessment after December and the post-assessment before February to ensure changes in Lexile scores were aligned with the time period during which the edtech tool was in use. In Vista, we removed students who had less than 90 days between their pre- and post-test for the same reason. Additionally, we removed instances where no score data was provided.

To analyze the qualitative data, Digital Promise used inductive coding to generate emerging, common themes and coded subsequent

data based on those patterns. Qualitative data were collected through open-ended survey questions for students and mid-year and post-pilot focus groups with a subset of educators involved in the pilot. All answers for a single question were reviewed and themes were generated from this initial reading. Next, each qualitative answer was sorted under the appropriate theme, and if none existed, a new theme would be created. This method allowed for the identification of key themes as well as some quantitative analysis in understanding the number of instances that a certain theme arose out of the total number of responses.

The comparison group in Cajon Valley and the large sample size allowed for more in-depth statistical analysis. While we ran the descriptive and frequency analyses and t-tests to compare pre- and post-assessment outcomes to analyze both the Vista and Cajon Valley data, we were also able to use the Cajon Valley data to compare the mean differences in Lexile scores between the treatment and control groups, using ANCOVA. In addition, we created a multiple regression model to consider the extent to which pre-test Lexile scores, product usage, student attitudes toward learning English, and student demographic factors contribute to post-test Lexile scores which we shared directly with Cajon Valley.

In addition to determining whether these two districts met their respective goals, we sought to better understand the districts' processes for selecting edtech tools to support EL students. At the end of the pilot, each district received a complete case study report from Digital Promise, identifying educator and student changes over the course of the pilot.[26] Additionally, Digital Promise produced Pilot Study Briefs for each pilot in an effort to disseminate findings to other district leaders (see Appendix A). Through these pilots, we intended to learn more about the types of evidence districts found most useful in making edtech purchasing decisions, to identify best practices in edtech pilot processes, and to provide feedback to product developers so that they could improve their products to better meet the needs of ELs.

The following section provides a summary of district outcomes, findings related to the pilot process, and findings about the two products.

District Results

This section presents the pilot results related to student learning, attitudes and skills, and engagement as well as educators' perception of their districts readiness to participate in this pilot.

Analyses of student growth varied substantially for the two districts. The Cajon Valley pilot incorporated a comparison group and a larger sample, allowing for more substantial statistical analysis, including a multi-regression analysis. On the other hand, the pilot in Vista did not include a comparison group and the usage data provided by BrainPOP ESL yielded few opportunities to link with individual student assessment results. Combined, these challenges led to an analysis that relied heavily on inferences based on changes in means of students' pre-post assessment results and attitudes and skills reported in pre-post surveys. Below, the results for Cajon Valley are presented, followed by the results for Vista.

Cajon Valley Student Learning

To understand the role that Achieve3000 played in reading achievement for Cajon Valley EL students, we used multiple approaches. To measure change in learning in Cajon Valley, we compared the post-test Lexile scores of students using the edtech tool to the post-test Lexile scores of the group of comparison students who did not use Achieve3000 (see *Figure 1*). Students who participated in the pilot demonstrated statistically significant growth on the LevelSet assessment test distributed through Achieve3000's platform, which measures students' Lexile scores.

Because the treatment and comparison groups differed in terms of their mean pre-test Lexile scores, we used a second approach to understand the differences in current Lexile scores, while controlling for pre-test Lexile scores. We tested a model limited to fifth grade students, since the comparison group was constrained to that grade level, to examine the variability in end-of-pilot or current Lexile

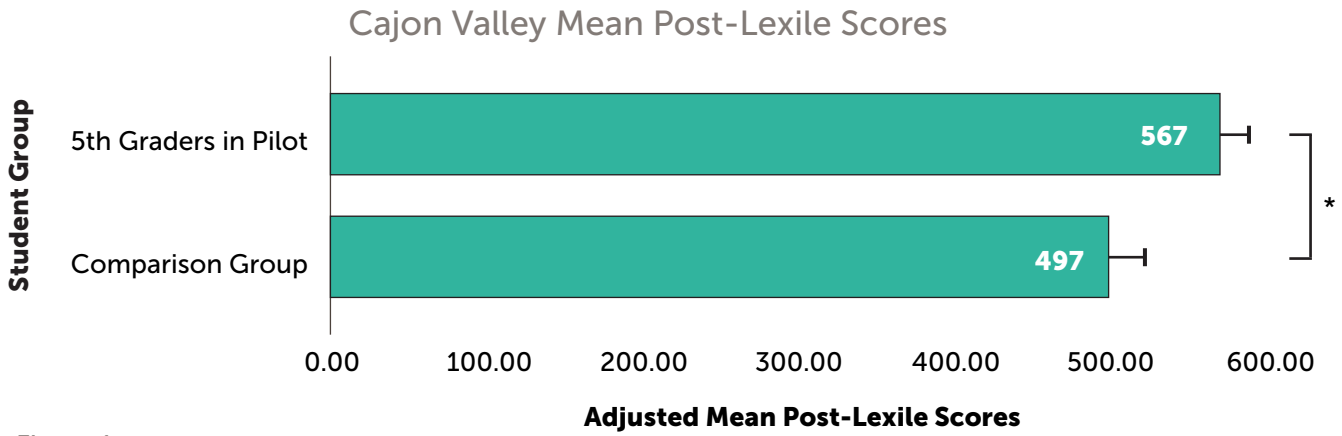

Figure 1:

Cajon Valley Differences in Adjusted Mean Lexile Level with Standard Error Bars for Fifth Grade Students in the Pilot (N = 89) and the Comparison Group who did not use Achieve3000 (N = 109). *Note: * indicates statistical significance at p < 0.01*

scores across students using Achieve3000 and those who did not. The slopes representing the relationship between pre-test Lexile and current Lexile scores were constrained to be equal across all students. Results indicated that the adjusted mean for current Lexile scores was 575.88 for students using Achieve3000 and 497.20 for students who did not use the program, which suggests that students in the pilot treatment scored significantly higher, on average ($_{y01}$ = 78.679, SE_y = *12.490*, $p < 0.001$). Students using Achieve3000 had current Lexile scores 79 points higher than students who did not use the program.

These results should be viewed with caution since other factors may have contributed to these differences. For instance, students in the pilot, through their use of Achieve3000, became accustomed to the platform that the pre-post assessment was administered through, whereas the students in the comparison group did not gain this familiarity throughout the academic year, which may have affected their post-test results.

Cajon Valley Student Learning Interaction with Usage

In addition to finding statistically significant growth between the students in the pilot compared to the students who did not use Achieve3000, we compared students who engaged with the tool at varying levels to better understand the impact the tool had on learning growth. "Total activities" is a usage variable that encompasses the total number of activities a student at least started in Achieve3000 throughout the pilot. This variable has a weak positive correlation with students' Lexile growth, meaning the more activities that a student began, the more likely a student was to see growth in his or her Lexile score (see *Figure 2*).

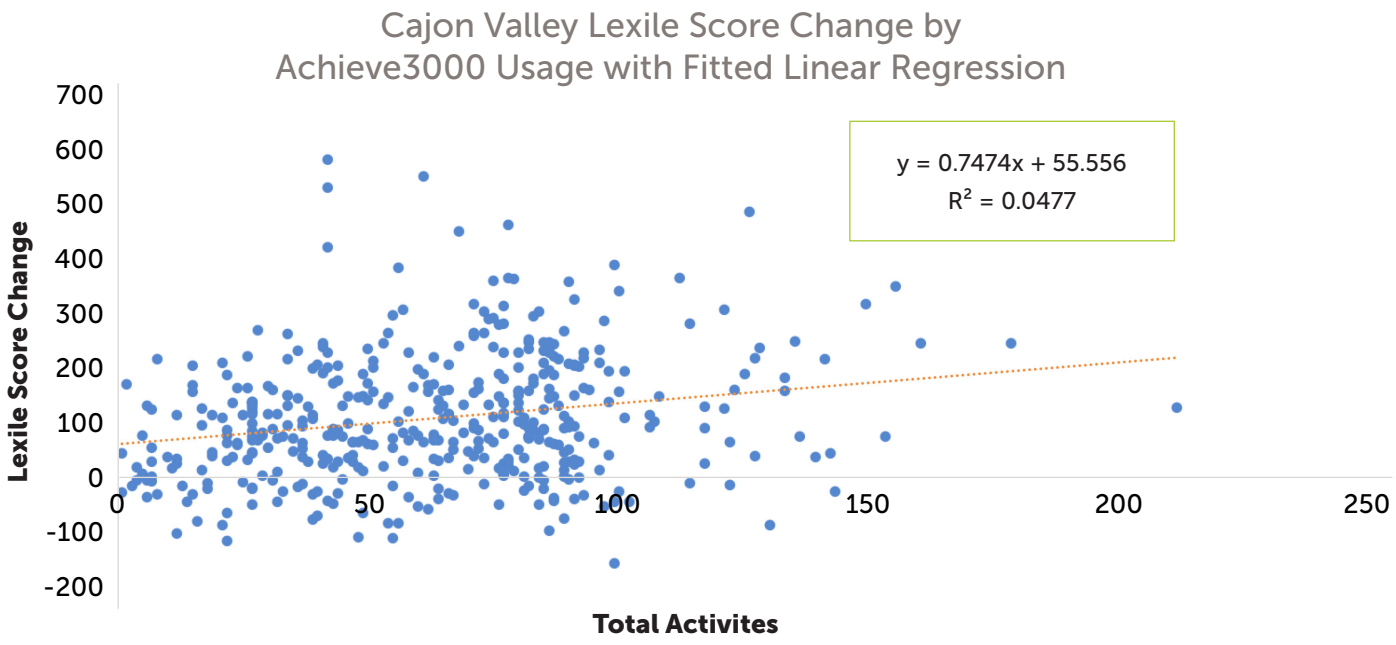

Figure 2:
Change in Lexile Score vs. Total Activities with a Fitted Linear Regression Line.

As the linear regression suggests, usage is positively correlated with growth in Lexile scores. To understand the extent to which Achieve3000 usage can predict current Lexile scores, we performed a hierarchical multiple regression between current Lexile score as the dependent variable and pre-test Lexile score as the first controlled variable, followed by Achieve3000 usage, student motivation to learn English, and finally student age as additional independent variables. This analysis was performed using IBM SPSS for evaluation of assumptions. The final multiple regression model indicated that pre-Lexile score serves as a 76 percent indicator of students' current Lexile scores, while Achieve3000 usage accounts for about 3.5 percent and students' motivation to learn English predicts roughly 1 percent of students' current Lexile score ($p < 0.01$).[27]

Vista Student Learning

The Vista pilot did not involve a comparison group. Therefore, in order to measure student growth, Digital Promise compared the pre- and post-assessment scores for students that participated in the pilot by school and ran a bivariate correlation test between usage and change in Lexile levels. The benchmark reading assessment used in Vista is the Renaissance STAR Assessment. Pre- and post-assessment data were shared with Digital Promise as Lexile scores. Of the 205 students who participated in the pilot, 76 had valid pre- and post-reading scores. Only 58 of those students also had valid usage information from BrainPOP ESL, so the results presented in this section represent roughly one quarter of the students involved in the pilot.

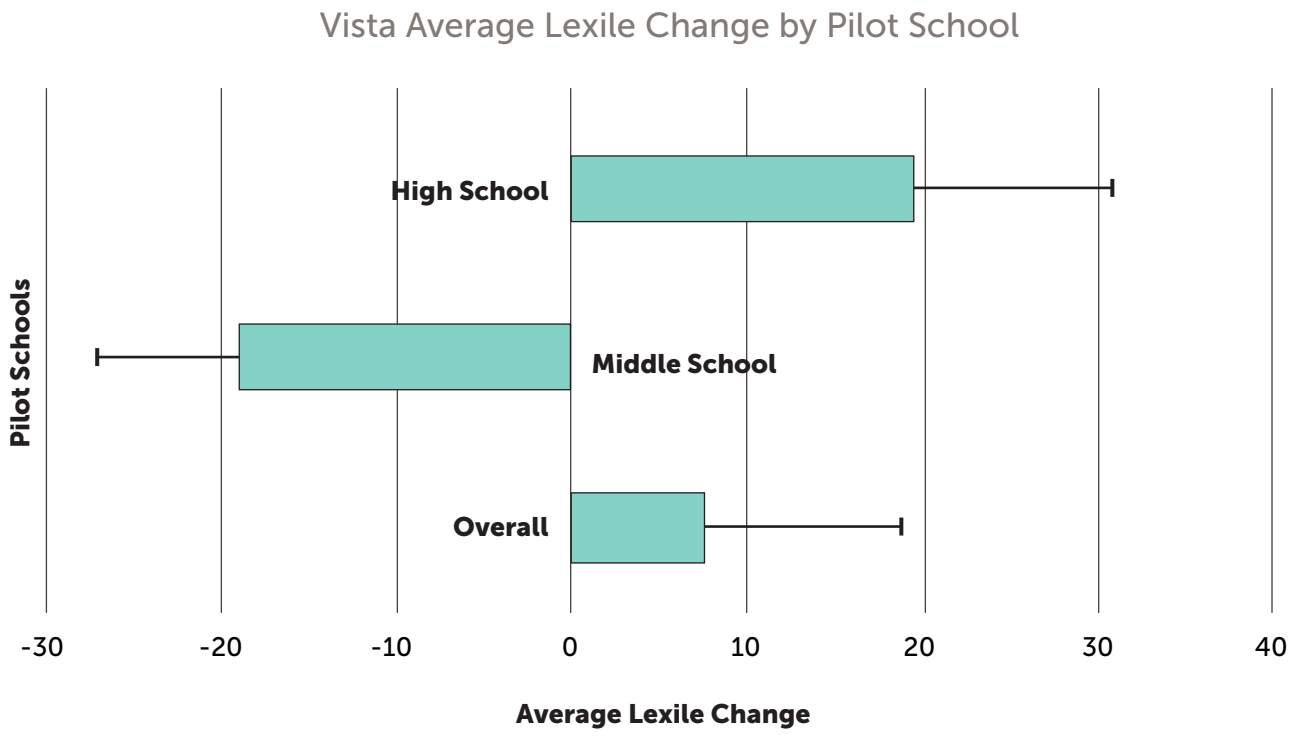

Figure 3:
Average Change in Student Lexile Scores Overall and by School Level with Standard Error Bars (N = 58)

Overall, there was a slight increase of 7.7 points from the pre- to post-assessment in the EL students' Lexile scores, though this change was not statistically significant ($p = 0.806$, see *Figure 3*). When disaggregated by grade level, students at the high school level showed slightly more growth than middle school students, though the difference was not significant ($p = 0.102$).

The correlation test between usage (i.e., the total number of logins, the number of activities completed, and the average score on BrainPOP ESL quizzes and activities) and change in overall Lexile score using matched student data yielded insignificant results. However, when isolated by school level, a slight correlation between high school student Lexile growth and number of BrainPOP ESL logins was found ($r = 0.273$, $p < 0.10$). Without a comparison group, it is difficult to determine a link between these results and BrainPOP ESL. Further, there is no statistically significant correlation between usage and change in Lexile levels for the group of students who used it the most, middle school students, which suggests that BrainPOP ESL did not contribute to an increase or decrease in high school students' Lexile levels.

Changes in Student Attitudes and Skills

Changes in student attitudes toward learning English and school slightly declined overall, however, few of these changes were statistically significant and specific changes varied by tool. Our findings indicate that competing variables, outside of the use of edtech tools, also likely affected student responses. For example, the post-surveys were administered during or immediately following the state testing period and may have contributed to the slight decline in attitudes toward learning and school. Similarly, students may have a more positive attitude at the beginning of the school year compared to attitudes at the end of the year; previous studies conducted by Digital Promise, as well as anecdotal evidence from educators, have found this general downward trend to hold true.[28]

In Cajon Valley, a comparison of pre-post survey responses indicated an overall decline in attitudes toward learning English and toward school (see *Figure 4*). Though few findings were statistically significant, the slight decline in student attitudes toward seeing school as fun and a good place to learn was statistically significant ($p < 0.05$). However, student responses to open-ended survey questions, classroom observations, and educator survey responses and focus groups contradict these findings.

Analysis of open-ended responses for students who used Achieve3000 found high rates of engagement and satisfaction. Nearly one-fifth (17 percent) of students reported enjoying the interactive activities and exposure to their Lexile scores. Similarly, almost one-quarter of all respondents stated that they liked Achieve3000 because it helped them learn and/or improved their skills in English. Moreover, classroom observations found that about 75 percent of students were on-task as educators incorporated Achieve3000 in their classrooms. Additionally, the mid-year to post-pilot observations found a slightly increased rate of student engagement. Finally, educator responses in pre-post surveys and focus groups found students to be highly engaged with noticeable increases in student learning in language acquisition skills. The figure below describes these changes by comparing the average response rate in the pre-survey to the average response rate in the post-survey, where the post-survey responses are immediately below the pre-survey responses.

Although, overall, Vista's students showed a slight decline in attitudes toward learning English and school, student responses to open-ended survey questions, educator pre-post surveys, and educator focus groups

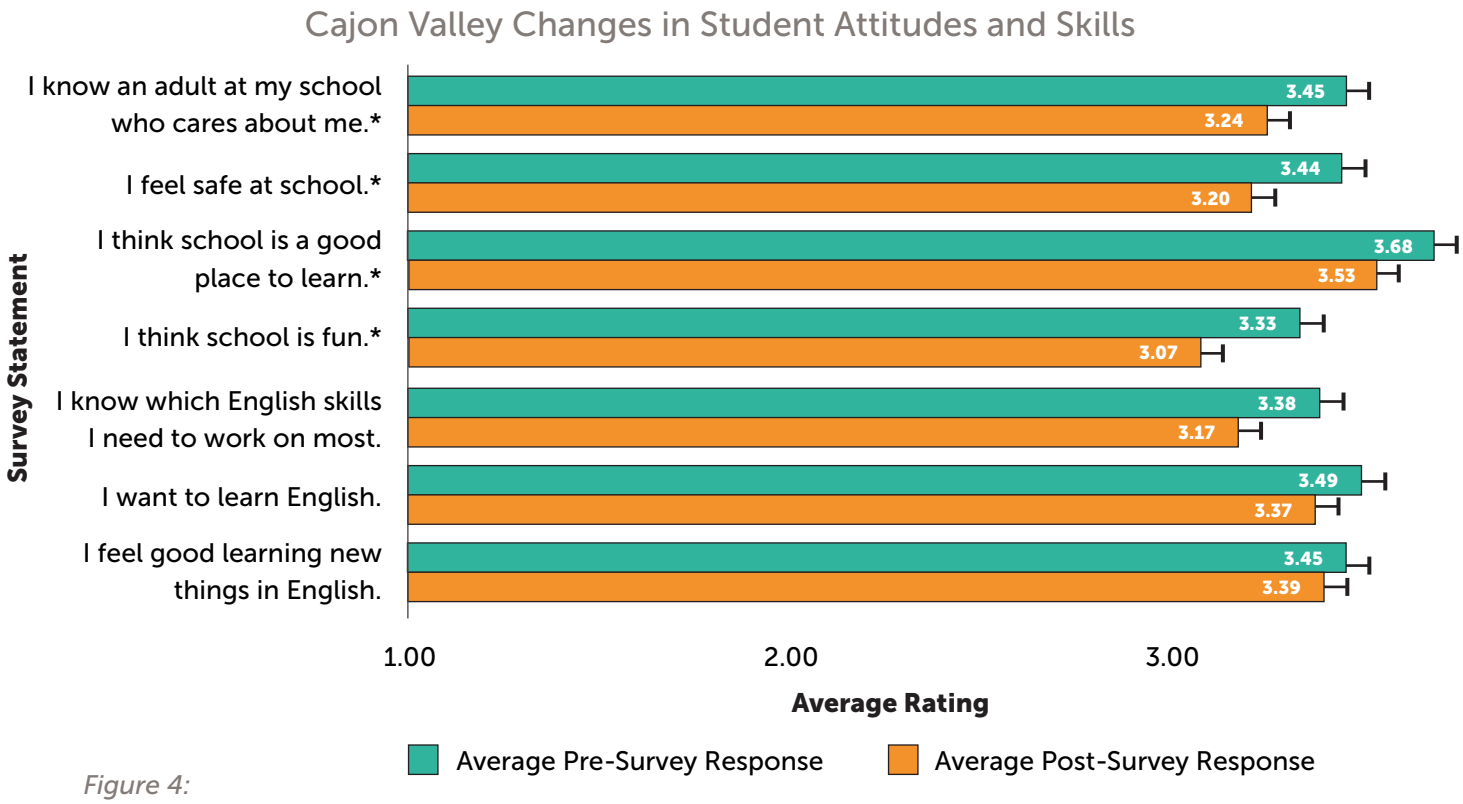

Figure 4:

Cajon Average Rating Results in Student Attitudes and Skills in the Pre-Survey Compared to Post-Survey Responses with Standard Error Bars, where 1 is strongly disagree and 4 is strongly agree

*Note: * indicates statistically significant difference between pre- and post-survey results ($p < 0.05$)*

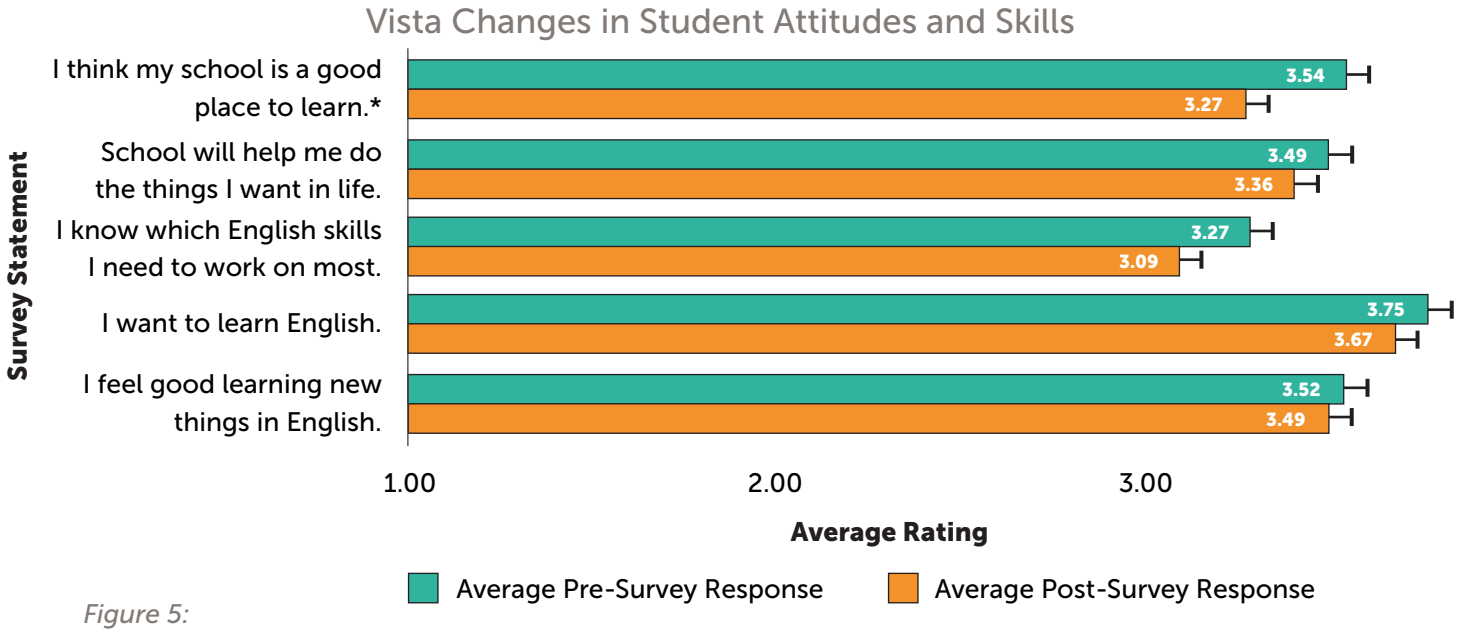

Figure 5:

Vista Average Rating Results in Student Attitudes and Skills in the Pre-Survey Compared to Post-Survey Responses with Standard Error Bars, where 1 is strongly disagree and 4 is strongly agree

*Note: * indicates statistically significant difference between pre- and post-survey results ($p < 0.05$)*

demonstrate more nuanced results (see *Figure 5*). It is important to note that while most findings were statistically insignificant, the decline in students' belief that school is a good place to learn was statistically significant ($p < 0.05$). However, through open-ended survey responses, about one-quarter of students indicated that they liked the videos and games integrated throughout the BrainPOP ESL platform. Many students reported enjoying watching conversational videos to acquire English language skills. On the other hand, about one-fifth of the students stated that they did not like several activities and many high school students stated that the content was too easy or too juvenile. Similarly, educator survey responses and focus groups indicate that middle school students found the content and program more engaging than high school students. The figure above describes these changes by comparing the frequency of responses in the student pre-survey to the frequency of responses in the post-survey, where the post-survey responses are immediately below the pre-survey responses.

Changes in Educator Attitudes and Skills

Educators in both districts were enthusiastic about using the edtech tools (see *Figure 6*). Survey data suggest that all participating educators believed digital literacy to be important, and most reported frequently using edtech tools and resources to deliver instruction. Similarly, all survey respondents agreed that their schools encourage them to incorporate technology into their lessons.

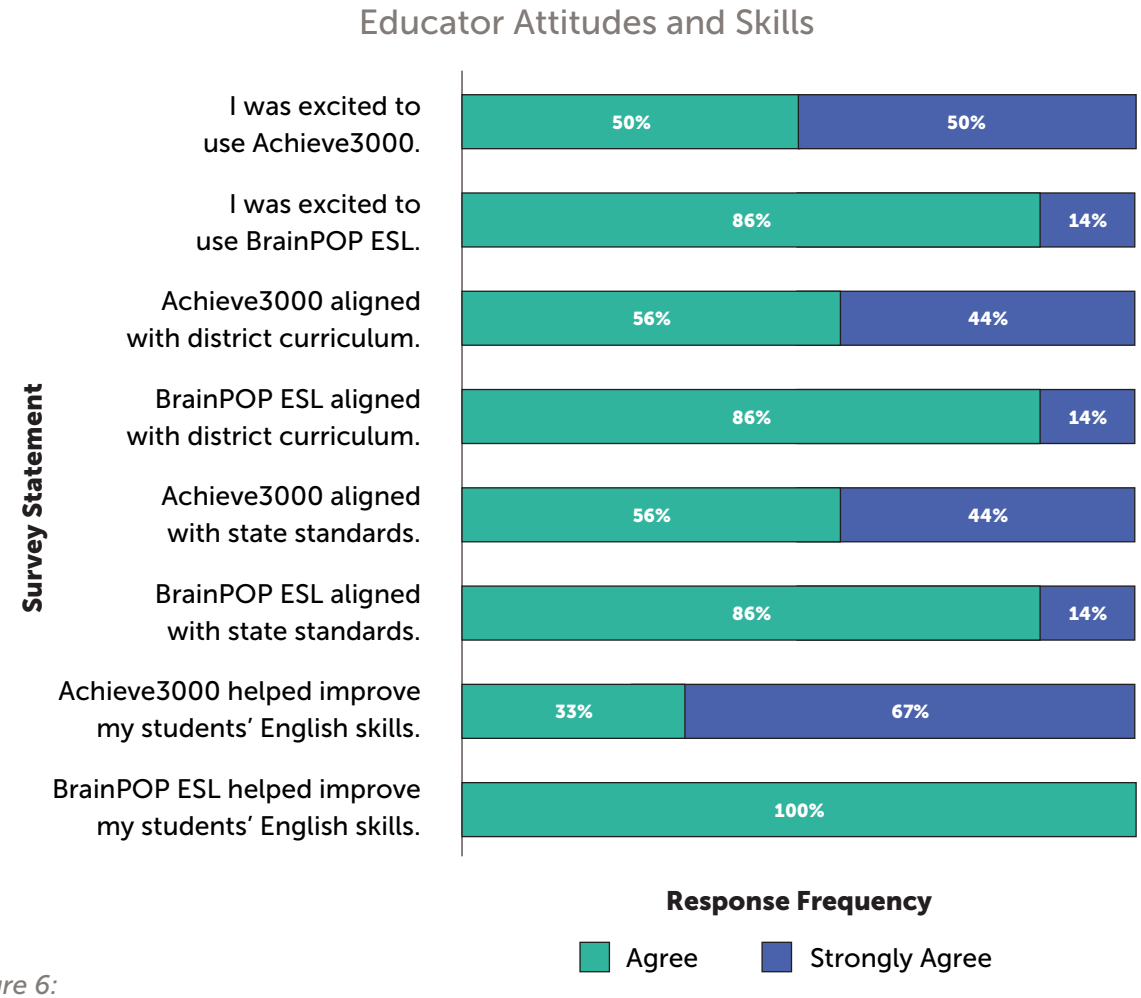

Figure 6:
Educator Attitudes toward District Readiness and Products

While 100 percent of the educators in Cajon Valley reported that Achieve3000 was easy for them to use, nearly one-third of educators in Vista did not find BrainPOP ESL easy to use. All educators from both districts reported that the edtech tools were easy for their students to use. Additionally, all educator respondents agreed that the tools aligned with state standards and the district curriculum.

After completing the pilots, all of the educators in both Cajon Valley and Vista would recommend the edtech tool they piloted to a colleague. Although focus groups with Cajon Valley educators mirrored this finding, Vista focus groups found that the high school educators were not interested in continuing use at the conclusion of the pilot. Most educators from both districts (80 percent) said that participation in this pilot increased their confidence using technology products and provided them with a better understanding of how to use edtech tools in their classroom.

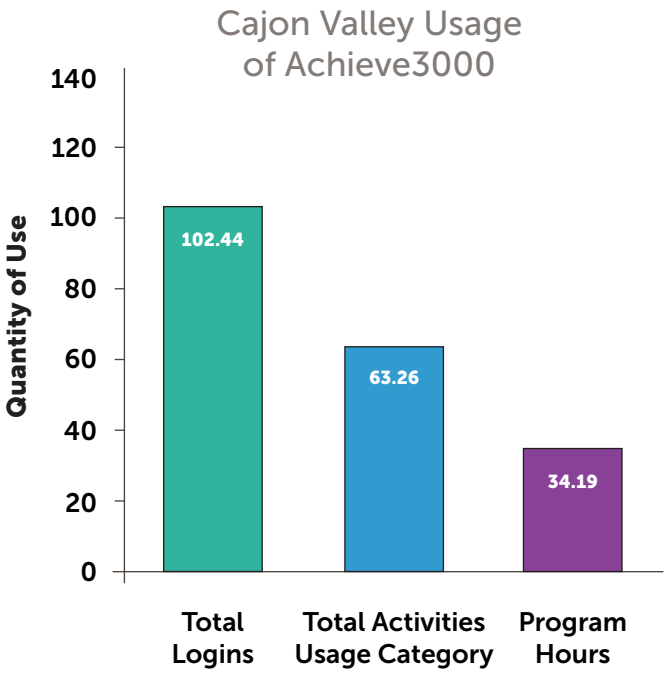

Figure 7:
Cajon Valley Average Usage by Total Number of Logins, Total Number of Activities, and Program Hours

Engagement

In both pilots, most students reported using the tool for more than eight weeks in post-surveys. However, the number of hours spent using the tools varied dramatically both inside and outside of school. Through surveys, nearly 60 percent of students in Vista reported only using the tool for less than 1 hour each week in class, whereas most students in Cajon Valley reported using the tool for at least three hours each week (for more usage details as reported by the edtech product developers, see *Figure 7* on this page and *Figure 8* on page 21). Over half of the students in the Cajon Valley pilot reported on post-surveys that they used the tool outside of school and over one-third used the tool outside of school between one to two hours each week. However, in Vista, less than one-fifth of the students reported use of the tool outside of school and, of those who used the tool outside of school, nearly three-quarters reported only using BrainPOP ESL for less than an hour each week.

Reported Engagement in Cajon Valley

Overall, the students in Cajon Valley Unified found Achieve3000 highly engaging.

> **"I liked the [...] vocabulary because everyday when I went home, I would use the words and get used to them!"**
> ***- Elementary School Student***

Through an open-ended survey question, almost one-fifth of respondents stated that they enjoyed the interesting and diverse article content and several students stated that they liked the built-in student choice around picking articles to read.

> **"I loved how it taught us to read between the lines and more carefully."**
> ***- Elementary School Student***

One in 10 students liked the embedded reward systems in Achieve3000, such as earning badges and points for completing activities. Further, in the open-ended survey question, roughly 20 percent of students found the interactive activities and exposure to their Lexile score growth engaging and motivating, and almost one-quarter of students said that they liked Achieve3000 because it helped them learn and/or improved their skills in English.

"I learned lots of new vocab[ulary] and I improved my reading Lexile [level]!"
- Elementary School Student

Additionally, several students found that the program created more collaborative classroom environments because Achieve3000 enabled class-wide discussions on the same article. In addition to the strong positive feedback, some students provided suggestions for improvement through an open-ended survey question. Many students recommended adding more animations to the program, allowing users to see their annotated articles while completing activities, and incorporating fiction as well as nonfiction articles to increase student choice.

"It's very enjoyable and fun, I would love to do it next year."
- Elementary School Student

Through surveys and focus groups, Cajon Valley educators also reported a perceived increase in student engagement, learning, and ability to read, write, and speak English.

"The kids really love it because they're getting exposted to so much additional information about artists and manufacturing and places in the world. They like expanding their knowledge of interesting facts."
- Elementary School Teacher

Further, in focus groups, some educators noted that some students found the ability to monitor their Lexile score highly motivating.

"The fact that it's all individualized Lexile levels has been amazing to me [...] I'd like to keep using it next year."
- Middle School Teacher

Reported Engagement in Vista

In terms of usage, variation between middle and high school students were significantly different. For example, students in middle school logged into BrainPOP ESL more than twice as frequently (182 logins) on average as high school students (74 logins) over the course of the pilot. In addition, middle school students completed an average of 109 learning activities compared to 60 for high school students.

In Vista, students gave mixed reviews of BrainPOP ESL. Through student and educator surveys and educator focus groups, it was apparent that middle school students had more positive experiences with the tool than high school students.

"What I like about the program is that it is very entertaining."
- Middle school student

"I liked how the articles were easy to navigate and they had cool facts."
- Middle school student

In open-ended survey questions, many middle school students stated that they found the program engaging due to the videos and games. On the other hand, numerous high school students reported that they did not like the activities and several noted that the program was too easy. In open-ended survey questions, about one-quarter of students

said that they liked the videos and games that were integrated into the program, as well as the techniques the program applies while teaching, such as providing help with pronunciation and vocabulary words.

> **"I like this program because it is practical, we can hear the pronunciation of the words well."**
> *- High school student*

However, nearly one-fifth of the students stated that they did not like several activities in the program. Furthermore, several students found the program to be confusing and the content too juvenile.

Through surveys and focus groups, Vista educators echoed student findings. Educators' opinions of the tool varied depending largely on whether they taught at the middle school or high school level.

> **"There is a great variety and the graphics are appealing."**
> *- Middle school teacher*

In focus groups, many middle school educators reported some student engagement, specifically due to the variety of activities and appealing visuals. However, one educator noted that if BrainPOP ESL was used for more than 40 minutes in class, student engagement dropped. Through focus groups, most middle school educators specifically noted that they liked the variability the program provided during class; one educator stated that the tool was beneficial as it allowed students to do something beyond silent reading to increase vocabulary. On the other hand, high school educators found that students did not like the tool as the content is too "childish."

> **"Sometimes the games are too young."**
> *- High school student*

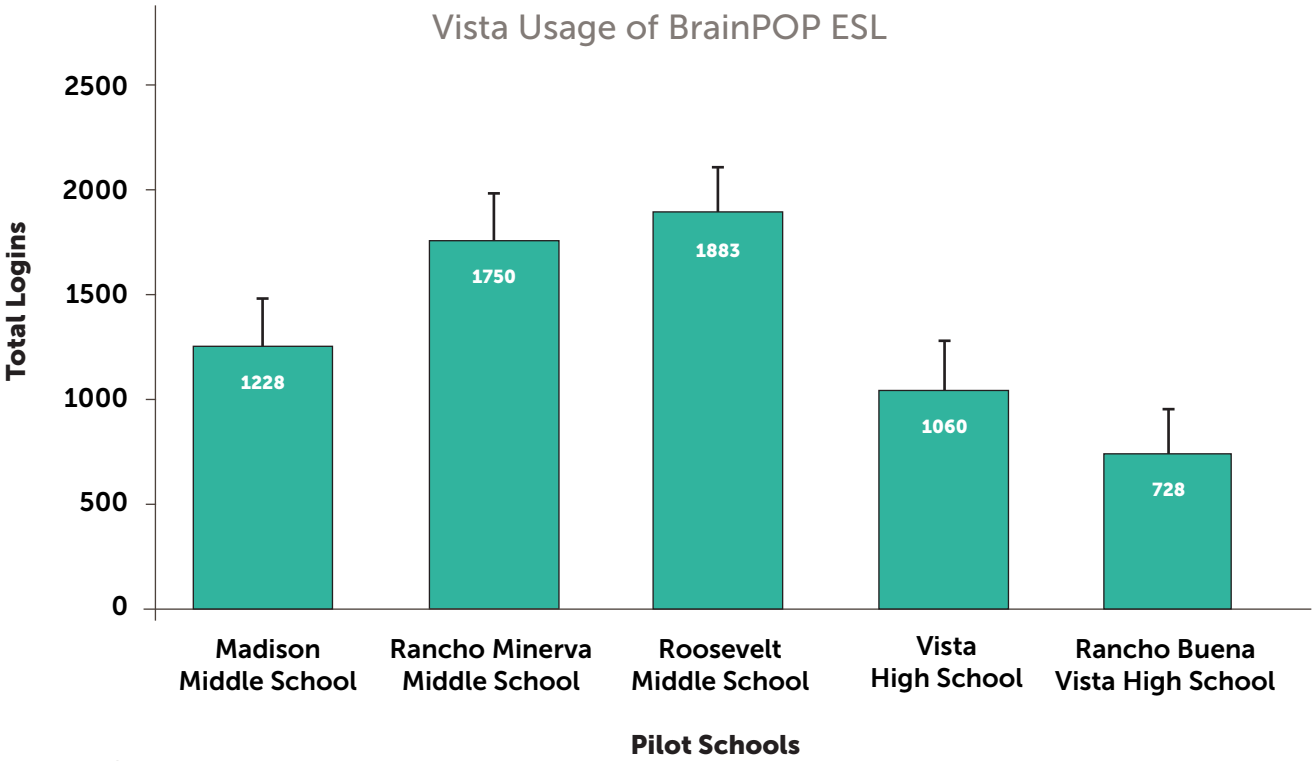

Figure 8:
Vista Usage of BrainPOP ESL by Total Number of Logins by School with Standard Error Bars

One high school educator noted that BrainPOP ESL was used almost exclusively as a filler. Overall, high school educators did not find much value in the program.

District Context and Readiness

Most educators in both districts reported that they believed their schools were ready to pilot. However, one-fifth of educators at Vista stated that their workload was not manageable and about one-third of responding educators indicated that their school did not have dedicated tech support to help them troubleshoot in the classroom.

Contrarily, most Cajon Valley educators said that their workload was manageable and that they felt supported by their schools.

Through focus groups, educators in both districts seemed satisfied with the pilot processes, though educators at schools with multiple educators in the pilot greatly benefited from collaborating with their colleagues.

Discussion

From both pilots, we offered interpretation to guide edtech procurement decisions and identified important lessons and best practices to support districts in their efforts to conduct robust pilots in the future.

Product Outcomes

Results from the two pilot studies varied in the extent to which the products met district goals for supporting ELs. While reading comprehension rates improved among students at risk of becoming Long Term English Language Learners who used Achieve3000, Lexile scores for newcomers at the middle and secondary levels who used BrainPOP ESL did not change.

Achieve3000

English learners using Achieve3000 increased their Lexile levels at higher rates than EL students who did not use the tool. Additionally, Achieve3000 usage predicted roughly 3.5 percent of student post-Lexile scores after accounting for pre-Lexile achievement, age, and motivation. The comprehensive professional learning support provided by Achieve3000 included modeling blended instruction for educators and resulted in a blended approach to implementation, which both educators and students found particularly engaging. Both educators and students agreed that they would recommend continuing the use of Achieve3000.
While the high cost of the product was concerning to some district leaders, the gains demonstrated in a 6-month period suggest finding funding to support continued use could be valuable. Negotiating for creative purchasing approaches including limited licenses for ELs or 6-month subscriptions is recommended. For more information, see the Achieve3000 Pilot Study Brief in Appendix A.

BrainPop ESL

English learner newcomers using BrainPOP ESL did not significantly increase their Lexile levels over the course of the pilot. While high school student logins to BrainPOP ESL had a weak positive correlation with high school Lexile growth, qualitative data suggested that high school students did not find BrainPOP ESL engaging. Additionally, secondary students and teachers did not use the tool as frequently as middle school counterparts and expressed dissatisfaction with what they perceived as juvenile presentation of material. While middle school students used the tool much more, their Lexile growth was not statistically significant over the course of the pilot and in many cases the tool's usage was for review and disconnected to curriculum. Because BrainPOP ESL was a new tool in the BrainPOP suite, roll out encountered some growing pains including limited access to educator data dashboards and confusion about whether the tool had a recommended progression of content. While Vista may want to consider continued study of BrainPOP ESL with middle school students, additional support for educators in using the tool for review and reinforcement of core curriculum is needed. For more information, see the BrainPop ESL Pilot Study Brief in Appendix A.

Process Outcomes

In terms of pilot process, districts and product developers should consider the following key takeaways: focus on study design to generate meaningful outcomes; involve and support educators throughout the process; maintain open lines of communication with product developers; set aside funds at the beginning of the pilot; and share pilot results.

1. **Clearly articulate the goals and identify the students involved in the pilot.** Clearly defined goals and thoughtful plans lay the foundation for all successful studies. To focus the pilots, district leaders first identified the students that the pilot was to target, and articulated the problem the edtech tool was intended to address. The more specific the identified need, the easier it is to select an edtech tool with appropriate applications to address the specific challenges. For instance, Vista chose BrainPOP ESL to support newcomers in middle and secondary school. While the district specifically searched for tools that were age-appropriate, most products for newcomers are repackaged from resources originally developed for a younger audience of emerging readers. Unfortunately, Vista student and educator survey and educator focus group results demonstrate that many high school educators and students still found the tool too juvenile and many pilot participants reported that there were too few levels to adequately adapt to the students' learning needs.

2. **Include comparison groups when possible.** The pilot results are limited to the elements included in the evaluation design. These two districts' results demonstrate the necessity to include comparison groups when possible in pilots in order to generate powerful results. The analysis results provided to Cajon Valley indicate that the tool was an influential product for student learning because students in the pilot demonstrated significantly more growth than students in the comparison group who did not use the tool, as measured by pre-post assessments administered through the Achieve3000 platform. On the other hand, results for Vista are difficult to interpret because we were only able to look at the students who used the product. It is possible that students who did not use the tool saw substantial growth and that the product stunted growth; however, it is arguably equally as possible that students who did not use the tool experienced sizable drops in Lexile levels and that the tool greatly benefitted users. Without a comparison group, we cannot draw conclusions about the impact of BrainPOP ESL on Vista student learning outcomes.

3. **Determine types of data and data collection methods at the beginning of the pilot process.** It is critical to think deeply about the variables and data that a district will need to collect in order to answer whether the pilot was a success after analysis. Both districts in these pilots articulated clear pilot goals. However, neither was able to collect data sufficient to accurately determine if their goals were met. For instance, Cajon Valley's pilot goal focused on students at risk of becoming Long Term English Languages Learners, but the district did not have a metric to allow Digital Promise to analyze the learning growth of students in this subgroup. Instead, we analyzed the effectiveness of the tool for all ELs who used Achieve3000 compared to EL students who did not use the tool and demonstrated that usage, also, correlated to growth. While this analysis yielded valuable findings, it does not explicitly state whether this tool directly benefits students at risk of becoming Long Term English Language Learners.

4. **Discuss the types of usage data available through the edtech tool with the product developers.** The types of usage data

available to districts are very important for evaluating a product, especially if a study does not include control groups in a study. The usage data should be provided at the individual student-level to enable researchers to link the usage data to student pre- and post-assessment results, at the minimum. However, if the usage data does not provide the district with information on engagement with or active use of the tool, it is still difficult to parse out meaningful findings. These data are critical in order to identify correlations between usage of a product and student learning outcomes. Further, usage data can provide critical pieces to negotiating a purchasing price. For example, if usage data indicates that students who used the tool outside of school did not demonstrate an increase have any increases in learning compared to than students who only used the tool at school, there may be room to negotiate a lower license price that only allows students to access the product through the campus networks. In an effort to start conversations with product developers, it is recommended that districts inquire about the usage data provided by the edtech tools they are considering may pilot. Additionally, these conversations provide the district with an opportunity to share feedback with product developers about specific usage metrics that are most useful to educators in the classroom and leaders in evaluating tool efficacy.

5. **By determining the available data at the beginning of the pilot, districts find creative solutions to challenges around types of data and data collection methods.** These pilots had a challenge with student learning metrics that required creative data collection plans. As noted previously, California is currently in the process of revamping state assessments for ELs, so there was not an option to use this assessment for measuring student learning. Instead, Digital Promise was able to use an assessment that measures Lexile levels embedded in Achieve3000, but that solution also brought about additional limitations to the study. The students in the comparison group, as well as the students in the pilot, took this assessment at the beginning and end of the school year. However, students who were in the pilot inevitably felt more comfortable using the tool and that certainly contributed to the significant learning growth we found, though the degree of that contribution is not something we can measure given the available data. Although the pilot found strong results indicating the success of Achieve3000, we recommend that the district follow up with additional future studies that use an external, valid and reliable assessment to more thoroughly analyze the impact of the edtech tool.

Involve and Support Educators Throughout the Pilot Process

1. **Include educators in discussions about potential future use of the product to allow them to sufficiently plan for the integration of edtech tools.** Through educator focus groups, it became evident that educators would have benefitted from conversations with district leaders about potential future implementation plans of the tools piloted. Multiple educators said that they were hesitant to invest large quantities of time into integrating the edtech tool into their curriculum because they thought it unlikely that the district would financially support future use of the tool. Additionally, a few educators also said the districts have previously taken away edtech tools without much notice or explanation for the rationale of the tools' removal. It is important to involve educators in conversations about the anticipated plans for an edtech product if a pilot succeeds. This includes providing not just an explanation about a

decision to stop using a tool, but rather a conversation about trade-offs and rationales. Collaborative decision making ensures that educators are included in and comfortable with the pilot process.

2. **Provide educators with continued professional development and technical support throughout the pilot.** After their initial introduction to a new tool, it is important to continue to support educators throughout the pilot process. Findings from these studies indicate that ongoing support from product developers is essential to the successful implementation of edtech tools. Educators in both pilots unanimously agreed that the ongoing support in troubleshooting problems that arose throughout the academic year was beneficial to their ability to effectively understand, integrate, and use the tool. While reviews on professional development training sessions were mixed, the focus group data demonstrate that the ongoing support enabled educators to succeed in using the tool.

3. **Provide educators with opportunities to collaborate.** In focus groups, multiple educators emphasized the significance of their ability or inability to collaborate with colleagues. Most educators in both pilots taught at schools where multiple instructors were involved in the pilot. Many of these educators stated that they greatly benefited from collaborating with their colleagues by sharing about techniques to integrate the edtech tool into their curriculum, and offering help with troubleshooting. There was an educator in one district who was alone in piloting the tool, and that educator specifically stated that they would have preferred working with colleagues when thinking about techniques to use the tool to meet students' needs. Districts should consider the number of educators at each school involved in the pilot to help educators use the edtech product most powerfully.

Maintain Open and Positive Lines of Communication with Product Developers Throughout the Pilot Process

1. **District leaders, educators, and product developers should engage in an iterative feedback loop to create more valuable tools available in the marketplace.** Through mid-year and post-pilot focus groups, a subset of the educators in the pilots were able to share insights about changes they would like to see made to the products. For example, many educators in the Vista pilot recommended that BrainPOP ESL find better ways to integrate methods to help educators monitor student usage and opportunities to communicate with students through the edtech platform. Moreover, most educators in both pilots stated that visually appealing platforms tended to lead to more student engagement. While BrainPOP ESL was visually appealing, in focus groups, several educators noted the mundane platform used by Achieve3000. Finally, multiple educators in Vista discussed the inadequate content included in the BrainPOP ESL dashboard and recommended the product developer focus on making student growth data more clear. These insights, made possible through direct feedback loops between districts and product developers, are invaluable to both product developers, who are then able to make iterative improvements to their edtech tools, and districts, who, through their feedback can help create a marketplace with more useful tools.

2. **Consider subcategories of students participating in the pilot to negotiate purchase prices.** When instrument and data collection design is thoughtful, pilot studies should yield data that identifies student groups who benefited most from the product. These results could be based on student groups who acquired the most growth from the tool, or students who found the tool most engaging. By creating subcategories within the pilot, districts are able to consider negotiating the purchase of licenses for the students who got the most out of the tool. For example, in Vista, it was clear that middle school students and educators found the tool more engaging than high school students and educators. By considering students by school level, Vista could consider buying licenses only for students in middle school rather than spend money on licenses for all students involved in the pilot, when most secondary level classes did not find the tool beneficial.

Set Aside Funds at the Beginning of a Pilot

Involve multiple district leaders in identifying funds available to purchase the edtech tool contingent on pilot results. It is critical that districts consider the cost of edtech tools when selecting a product and set aside the necessary funds, contingent on the pilot results. While a district should specify a pilot goal and set criteria to identify the elements that will result in a pilot success, all of that work is irrelevant if the funds are not available to purchase a product at the end of the pilot. One district had substantial changes in district leadership throughout the pilot, which resulted in the loss of a key player who initiated the pilot. Although that district leader had identified the categorical funds necessary to purchase the tool based on pilot results, the changes in district leadership created a new environment where the funds were not considered available for the tool, regardless of the pilot results. To avoid this challenge in future pilots, it may behoove districts to engage multiple district leaders in pilot planning and officially stating the funding source and quantity that will be set aside to possibly be spent on the edtech product, pending pilot results.

Share Results with Others

Share results to increase the amount of product efficacy information available in the marketplace. Many districts have difficulty identifying evidence to help them choose between the vast number of edtech tools in the marketplace. In addition, many districts feel hesitant to accept study results that do not identify the context of participating districts. In order to address these challenges, Digital Promise shares study results using a Pilot Study Brief template, produced by and for educators (see Appendix A). These briefs will support district leaders who are searching for products that have been tested in contexts similar to their own.

We encourage those engaging in pilot studies of edtech tools to contribute their findings through Digital Promise's Edtech Pilot Framework site.[29]

Conclusion

Edtech pilots provide districts with the opportunity to gauge the extent to which a proposed solution meets their needs before making a large investment. By explicitly articulating the needs that an edtech tool should fill, identifying the goals of edtech tool use, selecting products that solve their unique challenges, and gathering evidence, district leaders can make evidence-based purchasing decisions aimed at improving student outcomes.

When examining the effectiveness of edtech solutions for a subgroup of students like ELs, it is essential to consider the unique needs and opportunities the students present. As we found in these studies, supporting English language development among students who are new to the language is not the same as literacy development for students with a lifetime of exposure to English. Designing culturally and linguistically appropriate tech tools requires more attention to research on ELs and feedback from experts. Particularly when supporting newcomers, product developers would be wise to design for newcomers to technology as well as to the English language. Additionally, as many educators who work with ELs lack the appropriate training to support their students, product developers in this field should develop a strong emphasis on educator professional learning, demonstration and practice of edtech use through the implementation of a blended model, and maintain ongoing support.

As the number of edtech products available in the marketplace continues to increase, the need to generate valid and reliable findings about edtech tools grows. Additional research about the extent to which existing core language curriculum edtech tools support diverse learners is needed. In order to improve supply and demand in the edtech marketplace, Digital Promise plans to facilitate communication among stakeholders, build the research capacity of district leaders interested in conducting their own studies, contribute original product efficacy research to the marketplace, and share the results of edtech pilots.

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Endnotes

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Appendix A:
Pilot Study Briefs

Cajon Valley
Achieve3000 Pilot Study Brief

Product Info

Product Name: Achieve3000

Product Description: A reading-based program that provides students with individually levelled articles that integrate phonics, vocabulary, and fluency practice along with linguistic scaffolds through a focus on nonfiction science and social studies.

Learning Focus: English Language Learning; Elementary & Middle Schools

Educator Training: Professional development training sessions provided at the beginning of the year and mid-way through the pilot in addition to ongoing support from the product developer

Student Usage Minimum: Product developer recommends students complete a minimum of 80 total activities over the duration of an academic year

Device Specifications: The online tool can be used on web-based devices or as an app.

Cost: Schools and districts can request pricing through the Achieve3000 website.

District Context

District demographics: 16,500 total students across 30 schools; 35% are ELs; 12% in special education; 50% white, 38% Hispanic or Latino, 6% Black or African American; 70% of students receive free or reduced price lunches

Pilot demographics: 521 students and 13 educators involved in the pilot; 99% of students do not speak English at home; 5 schools piloted the tool and 2 schools served as control groups; grades 5-8

Pilot Goal

To improve reading outcomes for EL students at risk of becoming Long Term English Language Learners.

Implementation Plan

Duration: September 2016 – April 2017

Quality of Support: Professional development training sessions provided by the product developer at the beginning of and in the middle of academic year in addition to ongoing support throughout academic year. Educators very satisfied with support from product developer and felt supported by district leaders.

Implementation Model: The district integrated Achieve3000 into whole classes using a push-in model.

Data collected: Student and educator pre-surveys administered at the beginning of the pilot; mid-year and post-pilot classroom observations and educator focus groups; student and educator post-surveys administered in April; usage data collected from the product developers in April; assessment data collected from the product developer in April

Findings

Actual implementation model: The tool was implemented in classrooms as planned.

Educator engagement: educators were excited to use the tool and found it easy to use. Educators also found the tool to be aligned with state standards and district curriculum.

Educator satisfaction: Educators were very satisfied with Achieve3000. 100% of educators reported student improvements in English language acquisition while using the tool.

Student engagement: Student engagement with the tool was strong. In open-ended survey questions, many students stated that they liked being exposed to their Lexile levels and found the reward systems embedded in the program motivating and engaging.

Student satisfaction: Students were very satisfied with the tool. In open-ended survey questions, many students reported that the tool helped them learn English.

Student learning: Overall, students in the pilot grew in Lexile level by 2.5 times the students in the comparison group who did not use the tool at all. Further, usage data indicated a correlation between high rates of use and increased student learning.

Outcome

Purchasing Decision: Pending

Vista
BrainPOP ESL Pilot Study Brief

Product Info

Product Name: BrainPOP ESL

Product Description: A curricular tool that models conversational English through animated movies in an effort to introduce grammar concepts and vocabulary words.

Learning Focus: English Language Learning; Middle & High Schools

Educator Training: Two professional development training sessions made available by the product developer and district in addition to ongoing support from the product developer

Device Specifications: The product can be used on web-based devices or as an app..

Cost: BrainPOP provides options for licensing by classroom for use of up to 3 computers as well as school licensing options. To purchase BrainPOP ESL licenses for a school, the product costs $545 per year. The company also offers discounts off school prices based on the number of schools purchasing within a district and the length of the subscriptions.

District Context

District demographics: 25,000 students across 34 schools; 58% receive free or reduced price lunches; 25% ELs and 13% in special education; 64% Hispanic or Latino, 24% White, 4% identify as multiple races/ethnicities, 3% Asian or Pacific Islander

Pilot demographics: Grades 6 – 12; 205 students and 16 educators involved; 61% of students speak Spanish at home; 5 schools involved

Pilot Goal

To find a tool that supports middle and secondary newcomers practice language development and grammar skills.

Implementation Plan

Duration: September 2016 – April 2017

Quality of Support: Educators were somewhat unsatisfied with the professional development training sessions provided by the product developer and district in October and January, but educators were very satisfied with the ongoing support provided by the product developer throughout the academic year.

Implementation Model: The product was used for English Learners in pull out classrooms.

Data collected: Student and educator pre-surveys administered at the beginning of the pilot; mid-year and post-pilot classroom observations and educator focus groups; student and educator post-surveys administered in April; usage data collected from the product developers in April; assessment data collected from district leaders after in April

Findings

Actual implementation model: Educators tried to implement the tool as planned, but most reduced the amount of time they used the tool during class due to lack of student engagement.

Educator engagement: Educators were excited to pilot the tool and felt supported by their districts, though some educators reported that their workload was not manageable.

Educator satisfaction: Educator satisfaction varied depending on their school level. Middle school educators found the tool beneficial to instruction as it provided a varied activity for students to use outside of silent reading. High school educators did not find the tool useful.

Student engagement: Middle school students found the tool engaging, but many high school students reported that the tool was too juvenile or too boring.

Student satisfaction: Students were satisfied with the graphics, but several reported that the program was too easy.

Student learning: Overall, pre- to post-Lexile levels did not change. Though results varied by school, no findings were statistically significant.

Outcome

Purchasing Decision: Pending