



**Elli
Efficacy Study
2021-2022**



**LXD RESEARCH
Elli**



Ellii Efficacy Study Spring 2022

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Introduction

The mismatch between student needs and qualified educators in the space of English Language Learning is substantial. According to the [US Department of Education](#), 44 percent of the 1.5 million students in the 2015 adult education program were English Language Learners (ELLs). Unfortunately, less than half of those students (~39%) improve their English language proficiency through these programs each year ([CAELA Network, 2006](#)). Adult ESL teachers typically have little previous work experience and no opportunities for on-the-job training ([US Bureau of Labor Statistics, 2022](#)).

In K-12, only [nine percent of fourth grade ESL students were at or above proficient](#) in reading on the 2017 National Assessment of Educational Progress (in eighth grade, only five percent were proficient). While nearly four million of [all public school students are English-as-a-Second-Language \(ESL\)¹ learners](#) (nine percent of all students), only two percent of public school teachers are ESL instructors, and [fewer than half of all teachers have taken at least one course](#) on how to teach ESL students. With only one certified instructor for every 150 ESL students and more than half of all teachers without any training, there is an urgent need for effective, engaging tools that are helpful to all students (including ESL students) and that are easily used by all teachers.

Ellii (formerly known as ESL Library) was founded in 2002 to help English teachers teach their best class every day. Their tools and materials are used by more than 100,000 teachers in over 1,000 schools and 100 countries around the world. The site provides locally relevant, topical, and thought-provoking materials that focus on real-world issues and historical events and include natural dialogues to engage teens and adults. Unlike a core textbook, Ellii classroom tools are designed to make classes engaging and fun, and their homework and assessment tools help students practice and give teachers actionable insights.

¹ ELL and ESL are used interchangeably to refer to students who are learning English and speak a different first language.



There is a critical opportunity to use technology to better support our educators of ESL students of all ages, to support job retention and advancement, to enhance their ability to address variable learner needs, and to improve the feasibility of remote learning opportunities through a comprehensive, online English Language learning platform. Within this context and informed by this need, Ellii becomes a lifeline for students and teachers, with content, pedagogy, and interactive and engaging lessons that extend the impact of educators and help students of all ages improve their language skills.

Ellii partnered with LXD Research to conduct a third-party evaluation of Ellii materials, tools, and assessments as they were implemented during the 2021-2022 school year in three different educational contexts.

Research Description

The primary goal of this research study is to examine the impact of Ellii on English Language learning. Additional goals of the study are to examine program implementation information and feedback from educators about the program's quality and ease-of-use, as well as their perceptions about the impact of Ellii on teaching and learning. To meet these goals, LXD Research designed a mixed-methods correlational study of Ellii to start to understand the impact of this program on student language achievement.

The recruited research partners for this study include a K-12 public school district, higher-ed institution and adult-ed state-funded community action program.

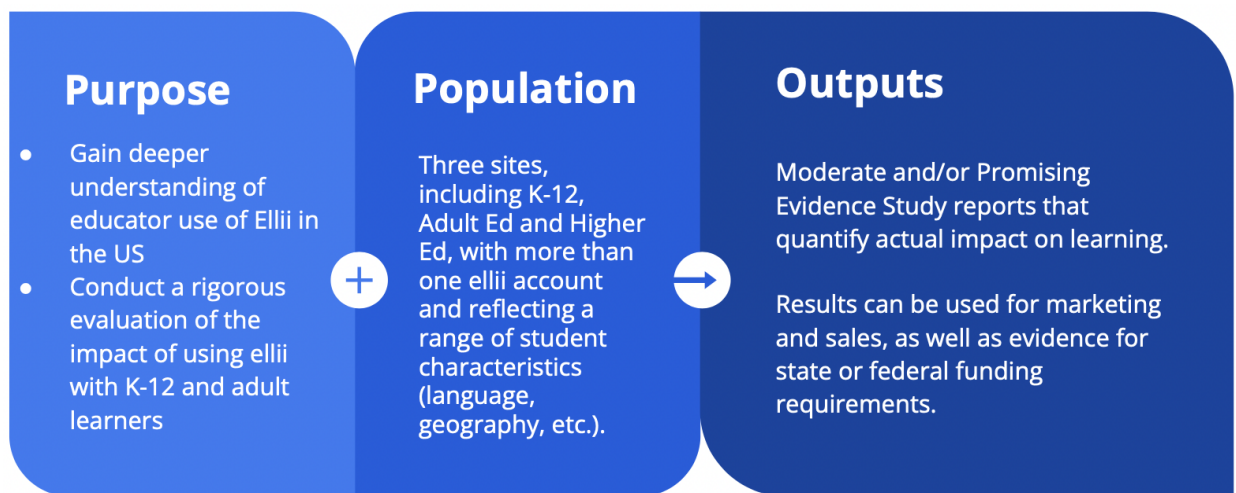
- The K-12 public school district is located in North Carolina. There are over 48,700 students in grades K-12 across 86 schools in the district. The K-12 district serves a population in which 57.8% of students traditionally qualify for free and reduced lunch and 3.2% of students are English Language Learners (ELL). Among the student population, 79 native languages are spoken and 74 countries are represented.
- The higher-ed institution is Seattle Colleges located in Washington state² and is one of the largest institutions of higher education in the state. There are over 46,333 students across three college campuses and five specialized training centers. The institution serves a population in which the median age is 28 and 35% attend full time while 65% attend part time.

²This report/article was made possible, in part, by the support of Seattle Colleges. Opinions contained in this report/article reflect those of the author and do not necessarily reflect those of Seattle Colleges.

- The adult-ed state-funded program is located in Rhode Island. The program funds qualified not-for-profit agencies to implement Adult Education and Workforce Training programs that support Rhode Island adults in gaining skills and credentials for employment, citizenship, and family and community leadership. In addition to Ellii, the program has purchased and/or promotes the use of multiple resources including I-DEA, [USA Learns.org OnLine Courses](#), [Queens Library ESOL Curriculum](#), and [Real English Video](#).

LXD Research engaged with the three sites to conduct a set of qualitative and quantitative data collection activities throughout the school year: Assessment Data collected includes end of semester grades, standardized tests (CASAS, WIDA ACCESS), attendance records, a student engagement index, a teacher survey, and interviews with educators.

Research Questions and Methods



Research Questions

- How does Ellii affect student achievement on formative assessments (reading, speaking, listening) for teachers that utilize the tools as their main resource compared to teachers that do not utilize the tools as their main resource?
- How do the impacts of Ellii vary when used with different age groups?
- What is the nature and extent of Ellii implementation?
 - How is Ellii implemented?
 - To what extent is Ellii implemented with regular use and how does that use compare to the Theory of Action?

- How do contextual factors, such as professional learning and administrator support, affect Ellii implementation?
- What is the nature and extent of phonics instruction implementation in comparison schools?
- What are teacher and administrator perceptions about the quality and impact of Ellii?
 - What are teacher and administrator impressions about different features of Ellii?
 - What suggestions do they have for improvement?
- What is the association between variations in Ellii implementation and student outcomes?

An advanced statistical modeling analysis was conducted to understand what the data show in support of answering these questions. This analytical technique helps account for known differences that could impact student outcomes.

Methods

As part of the study, each site provided LXD Research with student demographic information and achievement information related to English Language learning. Standardized measures including the [CASAS](#) and [WIDA ACCESS](#) were collected as well as summative assessments, such as end of course grades and state test scores. Up to two teachers were also recruited to participate in interviews to learn more about their use of Ellii and understand the impact of Ellii on their student’s engagement for learning English using the researcher-adopted English Language Learner Engagement Index.

Ellii Use Stats by Site

There are a number of activities that educators can engage with on Ellii. Nearly all educators who logged in opened, downloaded, and printed lessons (“Lesson Use”). A slightly smaller group of educators also used interactive features of the tool, including assigning interactive independent student practice, using the flashcard lesson, or broadcasting lessons during class (“Student Interactivity”). The table below presents the number of active Ellii users during the 2021-2022 school year and provides average interactions per user to compare usage across sites. Interestingly, the K-12 site had the most teachers use the interactive student features and use them more often than the other sites.

	Educator Engagement		Educator Lesson Use		Educator Use of Student Interactivity	
	Unique Users	Interactions per User	Unique Users	Interactions per User	Unique Users	Interactions per User
K-12	26	780	24	372	20	478



Higher Education	20	496	16	243	14	266
Adult Education	48	686	46	353	39	331

Student English Language Learner Engagement Index

The student English Language Learner Engagement Index (ELLE Index) was adapted from [this validated measure](#) of reading engagement ([Appendix A](#)). Up to two educators were recruited from each site to complete the ELLE Index for each of their students twice with a 10-12 week pause for instruction in between. The index covers student confidence, patience, and effort to learn English in four areas of English learning: Speaking, Listening, Reading, and Writing.

Results

Feedback on Ellii

The interviews provided rich information about how educators used Ellii and what the educators value most in the suite of Ellii resources and materials. Use of Ellii materials is informed by teachers’ knowledge of and empathy for their students’ lived experience (i.e. adolescents shy to speak English in class, immigrants navigating a new culture with different social norms, working adults tired when they get to class in the evening, learners who may not have access to internet or device, Ukrainian students who are brought to tears in class by Ellii’s current stories about the war in Ukraine, etc). This sensitivity and knowledge may be gained from years of teaching experience, purposefully built rapport with students, their own histories with immigration and learning English, and the documented unique teacher/advocate role filled by ELL teachers. The list below highlights a wide range of insights gathered from the interviews.

- Teachers across the K-12 public school district, adult-ed, and higher-ed ELL programs express great satisfaction and enthusiasm for Ellii materials and resources, which they describe as comprehensive and best practices.
- Teachers value that Ellii provides integrated instruction that includes vocabulary, grammar, and practice as well as structure, rationale for order of lessons, explanation of grammar rules, and a suite of connected materials with a consistent visual look and usability. Ellii provides a structure to lessons and curricular choices that is particularly useful for those new to ELL teaching.
- The presence of Ellii activities and materials about culture, including events and holidays, is



noted by all K-12 and adult-ed educators as being the most engaging for their students. Students who are reluctant to talk may be more inclined to participate when given the opportunity to talk about their own culture and country. Specific activities mentioned include vocabulary previews, discussion questions, and worksheet puzzles. Teachers prioritize being culturally responsive in the classroom, and so they particularly value Ellii's deep library of cultural content and related discussion questions. Teachers actively monitor how sensitive cultural topics and current events, such as articles on the war in Ukraine, are received and make adjustments in planned lessons to support their students.

- Teachers report that speaking English is the biggest communication challenge of their students, and Ellii materials address this challenge by promoting and facilitating group work and discussion both in person and online. Teachers see Ellii having a positive impact on students both in engagement and increased English language proficiency as measured on assessments.
- Teachers express that there is no typical ELL class format. Lecture-style introductions are not used. Worksheets and partner or group work are used by all teachers. Audio or visual media varies by teacher and class, but audio is mentioned as a particularly useful tool for beginning English students and for students with disabilities as a way to meet accommodation requirements. Post pandemic school closures, K-12 teachers are in person and adult-ed classes are taking place in person and remote. Factors that affect their teaching format include teaching across different ages, social dynamics in K-12 classrooms, student ability levels, class environments/formats (in-person and remote), shifting time available per K-12 class, and tiredness/energy levels of adult students who work in addition to attending school.
- While departments and programs purchase Ellii, actually implementing Ellii is up to the teachers. Ellii is described as working effectively as a support for a K-12 core curriculum and as the main curriculum for an adult-ed program. Teachers primarily choose Ellii materials and lessons that work for their individual students and schedules with minimal coordination with their colleagues. Some coordinated activity was reported, such as K-12 teachers describing their department which keeps a shared folder of Ellii resources, and an adult-education teacher recommending the use of Ellii to his colleagues, but that is the extent of reported coordination of Ellii resource use.
- Frequency of Ellii use by teachers ranges from as needed to support a topic, to a dedicated day of the week, to every day. Teachers report using Ellii for only grammar, only vocabulary, as one resource among many from which to find activities that support themes and activities being covered in class, and as the primary resource for all teaching. Teachers customize how they use Ellii based on their familiarity with Ellii, proficiency and needs of students, different teaching goals and styles, and Ellii's ability to integrate with other platforms required by their programs.

(Note that teachers using Ellii for a single dedicated day of grammar lessons and for all lessons both report huge satisfaction with the Ellii resources and experience.) While all teachers interviewed showed appreciation and satisfaction for Ellii materials, teachers with a dedicated plan for how and when they use Ellii expressed the most satisfaction with Ellii materials and resources. These teachers discussed the dismay caused by disorganization in their pre-Ellii teaching careers, and Ellii solved that problem for them by adding structured lessons and materials. Satisfaction is demonstrated through recommending Ellii to other colleagues, championing their program for their choice to purchase Ellii for all faculty, and choosing Ellii as their exclusive ELL teaching resource.

English Language Learner Engagement Index Results

Overall, the pre-post change in Student English Language Engagement was a significant, positive change across sites. Although Higher Education showed the largest mean-level change, the sample size of 12 was not sufficient to demonstrate significance. The effect sizes were moderate at the K-12 site and the Adult Education site.

	Sample	Pretest (% out of 76)	Posttest (% out of 76)	Statistical result	Effect Size
K-12	93	62 (82%)	66 ($t(92) = 8.90, p < .001^{***}$	Cohen's $d = .406$
Higher Ed	12	60	67	$t(11) = 1.69, p = .06$	Hedges' $g = .631$.
Adult Ed	33	57	62	$t(32) = 3.55, p < .001^{***}$	Cohen's $d = .320$
All	138	60	65	$t(137) = 7.83, p < .001^{***}$	Cohen's $d = .392$

Adult-Ed Research Study Results

Administrators from RIDE provided LXD Research with CASAS data from the last two years as well as course records available in their database. LXD Research matched up course records to CASAS records and then matched faculty names to Ellii email addresses that logged in at least once between August 2021 and June 2022. Course records included the total number of hours completed by the student within the program. CASAS data included the ABE or ESL Level of the student for each time assessed.

A total of 20 instructors and their students had CASAS data available. In this site, enough instructors used Ellii to organize students into three categories: High, Moderate, Low. High had regular logins and used the interactive student assignments through the platform, Moderate had regular use but did not use interactive assignments, and Low was infrequent use.

Adult Education Sample Description

Usage Level	Instructors	Total Students	Student Age Range (Avg)	Percent Hispanic	Percent Female
High	6	185	18-75 (40)	65%	80%
Moderate	8	112	18-69 (40)	49%	70%
Low	6	85	23-71 (44)	61%	78%

Student Outcomes

At the state level, the number of course hours is the key metric for understanding student engagement and retention. For CASAS, advancing a level of proficiency is a meaningful achievement and considered an important goal to track to measure student progress.

- **Higher Student Engagement:** Educators with High Ellii use had students with higher total course hours than educators with Moderate or Low use³.
- **More likely to Advance on CASAS:** Educators with High or Moderate Ellii use had students that were more likely to advance ABE or ESL Levels than educators with Low use⁴.

Adult Education Student Outcomes by Instructor Usage Level

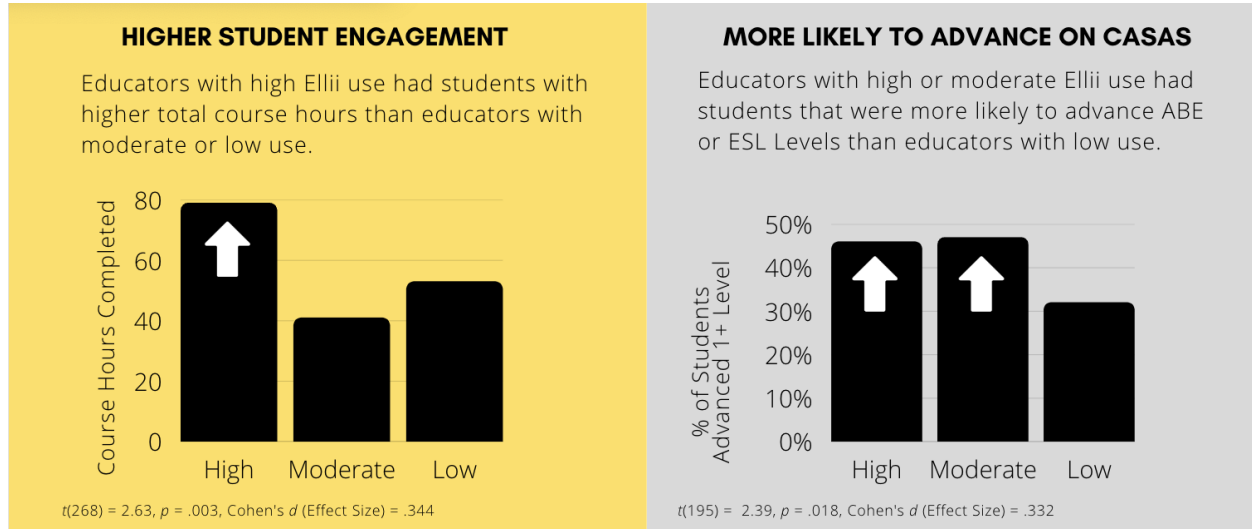
Instructor Usage Level	Average Number of Course Hours	Percent of Students Advanced at least one ABE or ESL Level on CASAS
High	79*	46%
Moderate	41	47%
Low	53	32%*

³ $t(268) = 2.63, p = .003, \text{Cohen's } d \text{ (Effect Size)} = .344$

⁴ $t(195) = 2.39, p = .018, \text{Cohen's } d \text{ (Effect Size)} = .332$

*Group is significantly different from others in column

Adult Education Infographic



High Education Research Study

Administrators from Seattle Colleges provided LXD Research with course records and grades from ESL courses from the past year. LXD Research matched up faculty names to Ellii email addresses that logged in at least once between August 2021 and June 2022. Course records included the number of credits the course was worth and whether the student received credit (passed), did not receive credit or was continuing in the course (therefore not yet eligible for a grade). CASAS was not administered during the pandemic, so was not available for most students and therefore is not included in this report.

A total of 23 faculty members and their students had student records available from a 10 credit ESL course during August 2021 to June 2022. All ESL faculty were encouraged to use Ellii throughout the year by a lead faculty member. Using product usage data, faculty were organized into two usage levels:

Regular or Inconsistent/No Use. Regular Ellii users logged in multiple times a week and assigned tasks to students in the system, while inconsistent users logged in less frequently and did not assign tasks.

Higher Education Sample Description

Usage Level	Instructors	Total Student Course Records	Demographics (712 Students)
Regular	4	246	<ul style="list-style-type: none"> ● 35% Asian, 30% Hispanic, 21% Black ● 72% Female ● 13% First Generation ● Student Age: 36 (17-79)
Inconsistent/No Use	19	866	

Student Outcomes

At Seattle Colleges, the goal is for students to end a course by passing and receiving credit. Other course options are not receiving credit or continuing in the course (therefore not yet eligible for a grade).

Higher Student Pass Rates: Regular faculty engagement with Ellii was associated with higher pass rates than Inconsistent or No Use. This was true when looking at all students⁵ and when looking only at First Generation students⁶

Higher Education Student Outcomes by Instructor Usage Level

Instructor Usage Level	Percent of Students Passed for Credit - All	Percent of Students Passed for Credit - First Generation
Regular	52%*	70%*
Inconsistent or No Use	38%	38%

*Group is significantly different from others in column

⁵ $t(1110) = 3.94, p < .001, \text{Cohen's } d (\text{Effect Size}) = 0.28$

⁶ $t(159) = 3.42, p < .001, \text{Cohen's } d (\text{Effect Size}) = 0.67$

HIGHER STUDENT PASS RATES

- For each course, students can Pass for Credit, Continue Enrollment, or Withdraw Without Credit.
- Higher faculty engagement with Ellii was associated with higher pass rates than inconsistent or no use (52% vs 38%).



FIRST GENERATION HIGHLIGHT

For students who were first generation immigrants, higher faculty engagement with Ellii showed an even stronger association with higher pass rates than inconsistent or no use (70% vs 38%).



12% 

Instructors' rating of student engagement increased by 12% over 11 weeks

Faculty rated every student on an English Language Engagement Index at the start and end of Spring 2022.

Due to small sample size, this difference was not statistically significant.

K-12 Research Study Results

Administrators from a K-12 District in North Carolina provided LXD Research with student records across its 86 schools. Students are given WIDA ACCESS every winter and end-of-year tests for its main subjects. LXD Research matched up matched faculty email addresses to Ellii email addresses that logged in at least once between August 2021 and June 2022. Instructors taught at multiple schools, and in a few instances, teachers overlapped at the same school (those schools were not included in this analysis). A total of 86 schools and 995 students were identified as having ACCESS data from both the 2020-2021 and 2021-2022 school year. Even though all educators had access to Ellii and were encouraged to use it, 26 of the teachers of the student sample logged in during the school year. Using surveys and product usage data, instructors were organized into Ellii Users, and Ellii Non-Users. Ellii users logged in over the course of the school year to access ESL Library materials and assign tasks to students in the system, whereas Ellii Non-Users had no exposure to Ellii materials.

K-12 Education Sample

Usage Level	Schools	Students	Demographics
Ellii Users	66	729	<ul style="list-style-type: none">● 73% Spanish Language● 46% Female
Ellii Non-Users	20	266	

K-12 Education Student Outcomes by Instructor Level

[WIDA ACCESS](#) provides scale scores for six different areas of English language proficiency to support monitoring growth of student skills year over year within each domain. Scale Scores take item difficulty into account, so educators can use them to examine groups of students, or student performances over time. Scale scores are specifically designed to track students' growth over multiple years. Proficiency levels are always calculated from the scale scores and are grade-level specific. This analysis focuses on year-over-year growth using scale scores across grades K-12 for these reasons.

Example Rubrics of WIDA Domains:

Students who score high on **LISTENING** can understand oral language in English and participate in all academic classes and, for example: Synthesize information from multiple speakers, Recognize language that conveys information with precision and accuracy, Create models or visuals to represent detailed information presented orally, and Identify strengths and limitations of different points of view.

Students who score high on **SPEAKING** can use English to communicate orally and participate in all academic classes, for example: React and respond to multiple points of view, Organize and present research-based information, Clarify how or why something happens, and Persuade others based on opinions, examples, and reasons.

Students who score high on **READING** can understand written language in English from all academic classes, for example: Evaluate written information from various sources of information, Conduct research and synthesize information from multiple sources, Distinguish various processes based on details in written texts, and Recognize different ideas, claims, and evidence about a variety of issues.

Students who score high on **WRITING** can communicate in writing in English using language from all academic classes, for Example: Produce clearly organized commentaries and editorials on various issues, Elaborate narratives with rich, descriptive language and complex organization, Create formal

written reports on a variety of issues, ideas, and information, and Produce well-organized persuasive essays using complex and technical language.

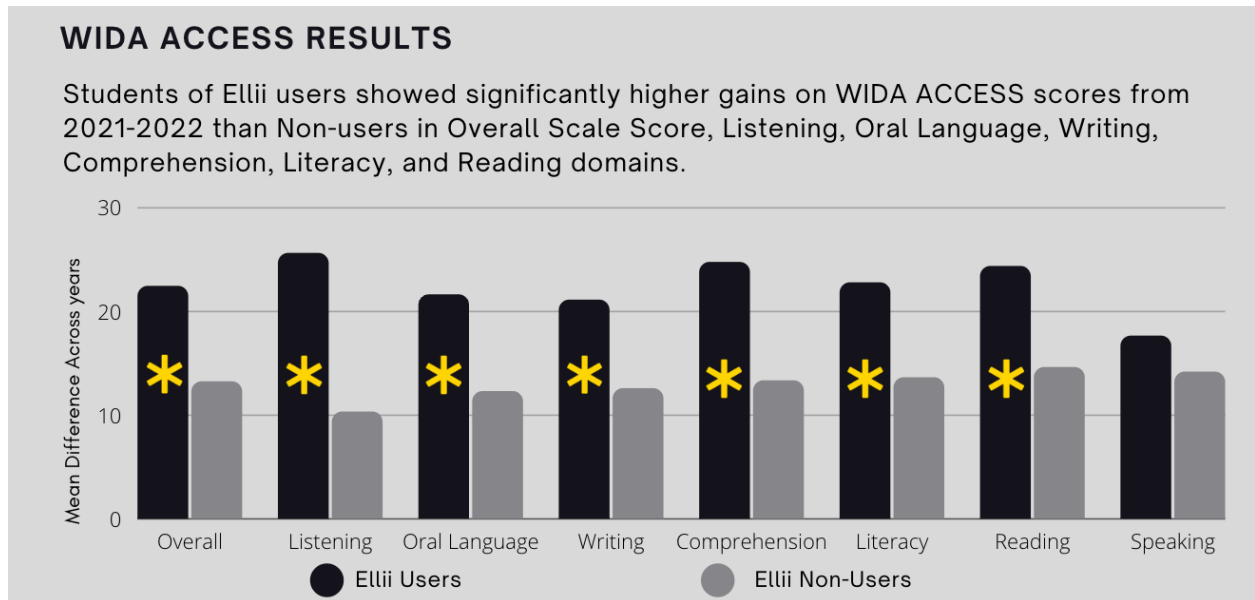
Higher growth on key skill domains: Regular Ellii use led to significantly higher growth on the Overall Score, Listening, Literacy, Oral Language, Reading, Writing, and Comprehension scores compared to students with teachers who did not use Ellii.

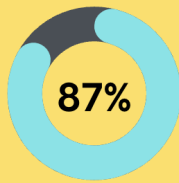
K-12 Education Student Outcomes by Score and Instructor Usage Level

Instructor Usage Level	Overall Score	Listening	Oral Language	Writing	Compr-ehension	Literacy	Reading	Speaking
Ellii Users	22.4***	25.58***	21.59***	21.07**	24.71***	22.74***	24.32***	17.60
Non-Users	13.22	10.32	12.28	12.56	12.56	13.61	14.60	14.14
T-Statistic	4.23	4.37	3.09	2.98	4.32	3.65	3.18	0.82
Effect Size	.30	.31	.22	.21	.31	.26	.23	n/a

Note: *p<.05, **p<.01, ***p<.001.

K-12 Education Graphic





Educators' student ratings increased from 81% to 87% in English Language Engagement

Two teachers rated every student on an English Language Engagement Index that measured reading, writing, speaking, and listening in Spring 2022.

This increase was statistically significant: $t(93) = 8.90, p < .001$

Conclusion, Opportunities & Implications for Future Research

This study documented program implementation and collected feedback from users about program quality and perceptions of impact. Triangulating quantitative and qualitative implementation data sources and student outcomes data, the study provided evidence of the effectiveness of Ellii materials and tools to support the teaching of students who are learning English as a second language. The findings have value on their own to stakeholders interested in the efficacy and impact of ELL instructional materials and programs and may also serve as the foundation for future quasi-experimental research.


Data tracked and analyzed in this report cover student achievement and engagement during the Spring 2022 term in higher-education, adult-education, and K-12 study groups. Assessment data sources included end of semester grades, standardized tests (CASAS, WIDA ACCESS), attendance records, a student engagement index, a teacher survey, and interviews with educators. The range and diversity of data sources collected from the three study sites allow for targeted achievement results to be tallied and highlighted as well as broad insights to be drawn as ideas and themes emerged in educator feedback.

The news is positive for student growth and engagement:

- For the adult-education group, educators with High or Moderate Ellii use had students that were more likely to advance on CASAS than educators with Low use.
- For the higher-education group, Regular faculty engagement with Ellii was associated with higher pass rates than Inconsistent or No Use.
- For the K-12 group, regular Ellii use led to significantly higher growth on the Overall Score, Listening, Literacy, Oral Language, Reading, Writing, and Comprehension scores compared to students with teachers who did not use Ellii.

The positive results of the separate study sites presented in the report may be examined individually for the particulars and nuance of site-specific study populations and assessments or grouped for a larger message of general efficacy for the Ellii solution of products.

The student achievement and engagement finding as well as educator feedback are relevant for diverse stakeholder groups including Ellii product development and marketing, ELL policy makers, and ELL



educators and administrators. Data summarized in the report may help Ellii develop and iterate to meet needs of customers as well as gain evidence based standing that will allow for growth of the company. Ellii sales and marketing teams may promote the findings of the report to customers who would be interested in and/or require research and evidence of efficacy to purchase and use curriculum. The results may be used in stakeholder responsive ways such as highlighting the uses and impacts of cultural components for student engagement as well as highlighting and perhaps building on the many different use cases for Ellii materials in the ELL matrix of curriculum and equity goals.

Culturally responsive teaching is on the mind of educational organizations as the country moves past the pandemic. Teacher feedback suggests that there is huge interest and opportunity for organizations using Elli to leverage the cultural competencies and responsiveness of its resources. These materials provide the opportunity to perhaps shine a light on the interconnectedness of social emotional, cultural and equity components present for learners. For example, teachers found that looping in talk of a student's home country and culture within in-class discussions buoyed student confidence, engagement and willingness to speak. Educators' continual feedback to Elli on their local needs allows for the opportunity for Ellii to expand its cultural instructional or implementation materials to support and align with emerging ELL equity initiatives, such as the Massachusetts State Seal of Biliteracy, that promise to shape ELL curriculum choices for districts.

In addition to plentiful opportunities, limitations in the study do exist and may be addressed through future research and inquiry. For example, the diversity of data sources is a strength and a limitation. Results paint a broad picture of efficacy but increased consistency across measures in future research will perhaps allow for increased comparison options. Additionally, teachers in the study were not randomly assigned to high and low-fidelity groups. A randomized or quasi-experimental study that compares users with non-users has the potential to produce research results that meet more rigorous research requirements of Tier 1 or 2 evidence-based levels. As Ellii evolves its clear brand, responsive curriculum, and thoughtful technology use, evidence of efficacy will support continued growth.

Appendix A - ESL Library - English Language Learning Engagement Index

Directions

Think of a student in your class. Consider both interactions in class and work completed outside of class. Over the past two weeks, how would you describe this student in terms of the statements below for each of the language skill areas? Share your ideas using the tables below. It may be easier to consider one skill area at a time.

Please rate each statement with a number between 1 (not true/never) and 4 (very true/most of the time) for each skill.

Statement	Speaking	Listening	Reading	Writing
This student is confident when using English.				
This student is easily frustrated when using English.				
This student tries hard to use English correctly.				
This student makes an effort to self-monitor and correct errors in English.				

Please rate each statement with a number between 1 (not true/never) and 4 (very true/most of the time).

Statement	Rating
This student asks questions or seeks information to clarify and expand their vocabulary knowledge.	
This student self-corrects or seeks help when they realize they have made a grammatical error in English.	
This student seeks guidance on the pronunciation of difficult words or sounds in English.	

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