Effectiveness of the National R&D Center to Improve Education for Secondary English Learners Educative ELA Curriculum

A REPORT OF A QUASI-EXPERIMENT IN FOUR SCHOOL DISTRICTS

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About Empirical Education Inc.

Empirical Education Inc. is a Silicon Valley-based research company that provides tools and services to help K-12 school systems make evidence-based decisions about the effectiveness of their programs, policies, and personnel. The company brings its expertise in research, data analysis, engineering, and project management to customers that include the U.S. Department of Education, educational publishers, foundations, leading research organizations, and state and local education agencies.

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Chapter 1. Study Introduction and Background

In 2023, WestEd's National Research & Development Center to Improve Education for Secondary English Learners (the Center) partnered with Empirical Education Inc. (Empirical) to conduct a one-year quasi-experimental study aimed at producing evidence of the effectiveness of their 12-week educative English Language Arts curriculum (henceforth, E-ELA). The study's initial focus was to assess impacts on ELA achievement and English Language Proficiency (ELP) outcomes for eighth-grade students classified as long-term English Learners (LTELs). LTELs are students who have been enrolled in U.S. schools for six or more years without being reclassified as fluent English proficient. Because the curriculum was designed specifically to support this population, the Center's initial recruitment targeted large urban districts with relatively high concentrations of LTELs. However, recruitment proved challenging, in part because many districts had recently adopted new curricula using Elementary and Secondary School Emergency Relief (ESSER) funds and were reluctant to temporarily pause new adoptions to try another curriculum for 12 weeks. As a result, the Center broadened recruitment efforts, yielding a sample of teachers and classes that included fewer LTELs and students with a wider range of English language proficiency levels. These challenges also required delaying implementation until spring 2025.

This report presents findings from the spring 2025 implementation of the E-ELA curriculum in four school districts: two suburban districts in Western OR, one suburban district in CT, and one large urban district in South TX. We designed the study to meet What Works Clearinghouse (WWC) standards with reservations, a design that would satisfy Every Student Succeeds Act (ESSA) Tier 2 evidence guidelines. We include additional exploratory research questions that are designed to meet ESSA Tier 3, which provides promising evidence of the effectiveness of a program through a well-designed and implemented correlational study that includes statistical controls for selection bias (IES, n.d.). In addition to estimating impacts on student outcomes, we also examined implementation and factors that facilitated or impeded successful teacher and student engagement.

MOTIVATION FOR E-ELA PROGRAM DEVELOPMENT

The Center designed the E-ELA curriculum, which includes professional development (PD), coaching, and instructional materials, to:

1. strengthen classroom learning opportunities for middle school English Learners, and
2. develop teacher expertise with quality curriculum and learning for students bureaucratically classified as LTELs (WestEd, n.d.-a).

The term English Learner (EL) is federal terminology used to describe students who are in the process of learning English as an additional language. We use this term throughout this report for consistency, though we recognize that stakeholders prefer more asset-based terms such as multilingual learner.

The focus of the curriculum on ELs relates to the 1974 *Lau v. Nichols* Supreme Court decision, which affirmed ELs' rights to meaningful and equitable access to education. Yet, evidence shows that many ELs continue to face academic challenges, as reflected in persistent achievement gaps on measures such as the National Assessment of Educational Progress (NCES, 2023). Challenges are particularly evident for LTELs. Both ELs and LTELs continue to face challenges such as an inability to access rigorous coursework (Umansky, 2016), experiencing low-quality instruction (Estrada, 2014) and enduring reduced learning opportunities (NCES, 2023). Eighth-grade ELA competence is especially important because it is an opportunity to provide ELs with integrated language and literacy instruction that supports access to academic content and prepares them for high school and beyond (Olsen, 2010; Walqui & van Lier, 2010; Umansky et al., 2015).

Given the academic challenges ELs face and the critical importance of eighth-grade ELA competence, the Center designed the 12-week, three-unit E-ELA curriculum to engage and challenge ELs—particularly LTELs—while also supporting the learning of all students. The Center drew on WestEd's Quality Teaching for English Learners (QTEL) initiatives, which promote academic and language development through high-challenge, high-support instruction, to guide the curriculum's theoretical design (WestEd, n.d.-b). Drawing on sociocultural and ecological theories (van Lier, 2004), the creators designed the materials with an understanding of how microsystems and mesosystems influence ELs' learning. As applied to this study, the microsystem refers to how teachers and students engage with the E-ELA curriculum in the classroom. The mesosystem connects these classroom experiences with related contexts—such as coaching sessions, professional development, and school-level implementation—to shape how the curriculum is enacted and supported. The program engages students with complex texts and ideas through collaborative activities that promote dialogue and build academic and language skills. Lessons include multimodal materials to improve understanding of complex materials like Rubens' "The Fall of Phaeton" painting and Poe's "The Masque of the Red Death" short story. Activities promote critical thinking, discussion, and collaborative reading and writing that lead to individual work and student agency. The three units follow a spiral pattern, developing thematic, analytical, and language skills through varied texts, culminating in a final project combining ideas from all lessons. These materials also aim to build teacher expertise, hence 'educative' (Davis et al., 2017). The educative materials intend to expand teachers' pedagogical knowledge, enabling them to more effectively challenge and support ELs. Educative features of the curriculum included 1) metacognitive bookmarks outlining actionable strategies and formulaic expressions, 2) engaging interactive tasks that required participation from all students, and 3) rich texts accompanied by supports for discussion.

Full implementation of the E-ELA program refers to using the E-ELA materials instead of the districts' usual ELA curriculum for the 12-week study period and receiving support provided through professional development sessions and individual coaching. Teachers participated in three PD sessions, both before and during implementation, each aligned with the 3 units. The PD sessions included lesson overviews, modeled instruction, and opportunities for co-teaching and reflection. Additionally, teachers participated in two to four coaching cycles with the program developers designed to support ELs and refine implementation. Based on prior implementations, the program development team refined the materials to enhance impact, clarity,

interactive learning, pacing, and collaboration (Hartman & Feldman, 2023; Schmida, 2023; Walqui, 2023). Teachers who participated in earlier implementations highlighted the following results from the experience: ongoing support, intentional design, and shifts in their beliefs about student potential.

RESEARCH QUESTIONS

We address the following research questions.

1) Does E-ELA improve LTELs' ELA assessment scores, compared to LTELs in the comparison group?
2) Is there a favorable effect of E-ELA for students based on their length of EL classification, or depending on students' race/ethnicity, or by whether students receive special education services? Is there a favorable effect on students with all EL categories combined, given the student distribution across these categories in the study?
3) Is there a greater effect of E-ELA for students of teachers who fully implemented the program?
4) Does E-ELA improve LTELs' speaking, writing, listening, and reading scores on the state EL proficiency assessment, compared to LTELs in the comparison group?

In addition to addressing these questions, this study offers rich implementation data to document teachers' experiences with PD sessions and coaching, details how the E-ELA units were implemented, and reports how teachers felt about the fit of the curriculum with their classes and students.

Chapter 2. Study Methodology

Our study results in a comparison of outcomes between eighth-grade students in ELA classes where the E-ELA curriculum was in place, and eighth-grade students in classes in the same school or district who experienced their districts' standard curriculum and practices. The outcomes of interest are the student test scores in ELA and EL proficiency, as measured by state assessments in each district.

This section details the methods used to assess whether the use of the E-ELA curriculum is responsible for differences in student outcomes. We begin with a description and rationale for the study design and go on to describe the program, the research sites, the sources of data, the composition of the study groups, and finally the statistical methods used to generate our conclusions about the effect of the E-ELA curriculum.

STUDY DESIGN

Rationale for Study Design

The expectation of the grant funding provided to the Center was to establish evidence of promise, or a study that would meet Tier 3 ESSA guidelines. However, to provide the strongest possible level of evidence we initially designed a teacher-level randomized control trial and the Center pursued large urban districts with large numbers of ELs with whom they had previous relationships, including one district that partnered on formative development of the materials, to participate. Although several districts showed interest in participating in the program, recruitment continued beyond the initial time period planned for the study, and the sample size looked to be smaller than planned. Due to these challenges, we determined randomization was infeasible. As a result, we revised the study design from a randomized experiment to a quasi-experimental design involving a non-experimental comparison group. In this scenario, the E-ELA group comprises all students of classes in which participating teachers agreed to implement the E-ELA curriculum. The comparison group includes students from similar classes in the same schools or districts whose teachers were implementing their districts' usual ELA curriculum. IES approved the revised study design with the expectation that it would satisfy study design requirements to support at least ESSA Tier 3 evidence. The Center identified interested teachers in each district, met with principals and district administrators, and secured district MOUs outlining participation and data sharing agreements.

Effectiveness of the E-ELA Curriculum for Subgroups

The new design allowed us to measure the effectiveness of the E-ELA curriculum for specific subgroups of students, most notably LTELs, but also for students with different lengths of EL classification and students classified as receiving special education services. Membership of students in the subgroups was determined before the start of program implementation. Understanding if there are favorable effects for specific groups of students can help to focus program improvement efforts.

RECRUITMENT AND CHARACTERISTICS OF PARTICIPATING DISTRICTS AND TEACHERS

District Recruitment

Initially, the Center's recruitment efforts focused on large urban districts serving higher proportions of LTELs. However, discussions with district representatives revealed limited willingness to participate. Many of the districts initially contacted had recently received ESSER funds to address pandemic-related disruptions and were actively piloting or implementing new ELA curricula. As a result, these districts were reluctant to pause or modify existing instructional initiatives for the 12 weeks required to implement E-ELA.

These recruitment challenges necessitated postponing the implementation timeline until spring 2025. The districts that ultimately participated differed from the original recruitment targets in both demographic composition and geographic context (see Table 1). Although the Center initially intended to implement E-ELA primarily with LTELs, the final sample included fewer LTELs and a broader range of ELP levels than originally anticipated.

Following extensive recruitment efforts, the Center secured agreements with four diverse school districts: two districts in western Oregon (a large suburban district and small rural district), a small suburban district in Connecticut, and a large urban district in southwest Texas. Here we include overall student characteristics for each district. In the remainder of the report, we will refer to the districts by their states.

TABLE 1. DEMOGRAPHICS OF DISTRICTS

Demographics	Oregon district 1	Oregon district 2	Connecticut district	Texas district
Student population	25,000+	10,000-24,999	10,000-24,999	25,000+
English Language Learners	17%	26%	22%	25%
Students with IEPs[a]	13%	15%	17%	16%
Low socioeconomic status[b]	22%	38%	51%	89%
Race/Ethnicity				
White	41%	47%	23%	<5%
Black	<5%	5%	13%	6%
Hispanic	28%	34%	57%	90%
Asian	18%	<5%	<5%	<5%
Pacific Islander	<5%	<5%	<5%	<5%
American Indian/Native Alaskan	<5%	<5%	<5%	<5%
Multi racial/No response	9%	9%	<5%	<5%

[a] IEPs are Individualized Education Programs.

[b] The district defines low socioeconomic status as students classified as experiencing poverty.

Note. Percentages may not add up to 100% due to rounding of decimals. Categories with less than 5% are marked accordingly.

Source: National Center for Education Statistics (n.d.-a) and Oregon Department of Education (2024) 2023–24 school year statistics

Teacher Recruitment and Sample

Each district assigned a point of contact who helped identify and recruit teacher participants, either a superintendent or ELA/EL curriculum director. The opportunity to take part in the program was offered to all eighth grade ELA teachers in each district.

A total of 20 teachers participated in the study across the four districts: seven across the two OR districts, five in the CT district, and eight in the TX district. Due to the small sample size, we have combined the two OR districts and refer to them collectively as the OR districts rather than naming them separately when presenting results. Participating classrooms used either a **co-teaching model**, in which a general education teacher partnered with an English Language Development (ELD) or special education teacher, or a **single-teacher instructional model** led by a general education ELA teacher or an ELD teacher. Of the 20 participating teachers, 14 were general education ELA teachers, and six were ELD teachers who served as the sole teacher or in a co-teaching model. Teachers implemented the E-ELA curriculum materials in 46 classes including nine in the two OR districts, 12 in the CT district, and 25 in the TX district. Table 2 summarizes this information.

TABLE 2. TEACHER AND CLASS PARTICIPATION BY DISTRICT

	Total teacher participants	General education ELA teachers	ELD teachers	Number of E-ELA curriculum classes
Oregon districts	7	3	4 [a]	9
Connecticut	5	3	2 [a]	12
Texas	8	8	0	25
Total	20	15	5	46

[a] Some of these teachers were co-teachers supporting the lead ELA teacher.

The participating teachers were experienced educators, with an average of over fifteen years of teaching experience and more than seven years of experience in their current schools. Teaching experience was lower in the TX district, with an average of just over nine years overall and over four years of experience in their current school.

DESCRIPTIONS OF ELA CURRICULUM

E-ELA Curriculum Professional Development and Materials Description

This section provides a detailed description of the E-ELA curriculum and the accompanying PD that teachers received through synchronous PD sessions and individual coaching cycles. The E-ELA curriculum is a set of 3 eighth-grade ELA units designed for implementation over a 12-week period to support ELs, with an emphasis on LTELs. Teachers receive PD and coaching prior to and during implementation that is designed to strengthen their understanding of the materials and to highlight instructional practices for targeting LTELs.

Professional Development Sessions

Teachers implementing the E-ELA curriculum participated in three in-person PD sessions between December 2024 and May 2025. PD sessions for the four districts were separate, with the exception of the two OR districts which held a joint session due to their nearby locations in Oregon. The TX district participants attended two PD sessions (a total of three days) before implementation began, and they attended the final PD session during the first month of implementation. Teachers in the CT and OR districts attended evenly distributed PD sessions across the 12-week implementation period. In each state, a different Center team member facilitated the PD sessions while closely collaborating with one another to maintain consistency in content. The grant covered the cost of substitute teachers when PD occurred during a teacher's regular contract day.

The Center designed the PD sessions to align with the curriculum's structure, with PD session 1 focusing on Unit 1, PD session 2 on Unit 2, and PD session 3 on Unit 3. PD session 1 was two days, and PD sessions 2 and 3 were each one day. To aid in teacher preparation, teachers received materials ahead of each PD session. Sessions offered in-depth descriptions of specific lesson plans and instructional strategies, emphasizing a sociocultural approach to learning through metacognitive development, social interaction, and a spiraling curriculum design. PD included PowerPoint presentations to reintroduce the core philosophy of the materials, small group activities and discussions, and facilitator demonstrations of lessons to help participants view the curriculum from their students' perspectives. Participants also had the opportunity to collaboratively teach a lesson by dividing responsibilities and delivering it to the group with a Center facilitator present. Before and after their teaching activity, participants responded to prompts reflecting on their instructional choices and practice. For more information about when each district held its PD sessions, see Table 11.

PD Session 1 (PD Days 1 and 2) included the following.

- Introduction to the E-ELA curriculum and study
- Administration of pre-implementation instructional practice survey questions
- Overview of metacognitive development, apprenticeship, quality social interactions between students, and spiraling curriculum
- Opportunity to engage from the students' perspective as facilitators taught Lesson 1 and Lesson 2 from Unit 1
- Presentation about analyzing key constructs and metacognitive development

PD Session 2 (PD Day 3) included the following.

- Small-group poster activity to share and reflect on successes and challenges with implementing the replacement materials
- Review of the spiraling nature of the replacement materials
- Opportunity to engage from the students' perspective as the facilitator taught Lesson 1 of Unit 2

- Division of responsibilities where participants led the group through Lesson 2 from Unit 2, followed by a reflection activity on insights gained during the observation
- Preparation for testing by discussing test-taking strategies with an emphasis on modeling and guided practice

PD Session 3 (PD Day 4) included the following.

- Participation in a small-group, post-it note activity to share and reflect on implementing the replacement materials
- Review and sharing with a partner about the spiraling nature of Unit 3
- Engagement in the program experience from the students' perspective as the facilitator taught Lesson 1 of Unit 3
- Division of responsibilities to lead the group through Lesson 2 of Unit 3, followed by a reflection activity on insights gained during the observation

Coaching Cycles

In addition to the three sessions of PD, the Center also scheduled coaching cycles with each teacher. Coaching cycles for all four districts took place between January and April 2025. During each coaching cycle, participants were to receive two classroom observation sessions and two debrief sessions. An observation session involved a Center facilitator observing a class period in which the participant was implementing the E-ELA curriculum. A debrief session provided a separate opportunity for the participant and facilitator to discuss the observation in depth—allowing participants to ask questions, seek assistance, and reflect on their practice—and for the facilitator to offer recommendations and support.

E-ELA Curriculum

Teachers received both teacher and student workbooks for implementing the curriculum, which were printed, bound booklets. Student workbooks contained the reading or multimodal texts along with prompts for each lesson, while teacher workbooks included the same content plus additional guidance for implementation. The implementation team also created editable PowerPoint slides for each lesson, which teachers could adapt to their students' needs and teaching style. Teachers received all materials prior to the PD sessions so they had time to review them in advance.

All three units include multimodal instructional materials—such as visual art, literary texts, informational texts, and videos—to build students' comprehension of complex texts. The units follow a spiraled design, supporting the progressive development of thematic, analytical, and language skills across texts. The Center designed the replacement materials to foster learner autonomy by using formative assessments that are built into each unit (WestEd, n.d.). Students engaged in tasks throughout all three units that led to independent

writing and a culminating art project that synthesized learning across units. We provide additional details about the unit implementation in the study classrooms in Chapter 3.

Comparison Materials

The standard eighth-grade ELA curriculum varied between the different states participating and, at times, within districts. According to the districts' websites, the existing eighth-grade ELA curriculum including the following.

- In OR district one, the curriculum was *myPerspectives*, which focused on analytical reading and writing skills.
- OR District 2 employed *Into Literature* by Houghton Mifflin Harcourt for Grades 6–8, emphasizing literacy fluency and analytical thinking.
- The CT district curriculum is a locally developed, standards-aligned program that builds students' literacy skills through culturally responsive, differentiated instruction to prepare all learners for college, career, and lifelong learning.
- The TX district utilizes integrated workshop models, adaptive learning tools, and targeted interventions to support literacy development and grade-level proficiency.

While we do not have implementation data from comparison classes, we did ask the E-ELA study teachers about the suitability of their usual eighth-grade ELA curricula across several criteria. While 85% felt the curriculum was aligned to state standards, less than half (45%) *agreed* or *strongly agreed* that it was well-paced, met the needs of ELs, was engaging for students, and was culturally responsive (Figure 1). For additional details about teachers' perceptions of their usual ELA curriculum, see Chapter 3. Implementation Findings.

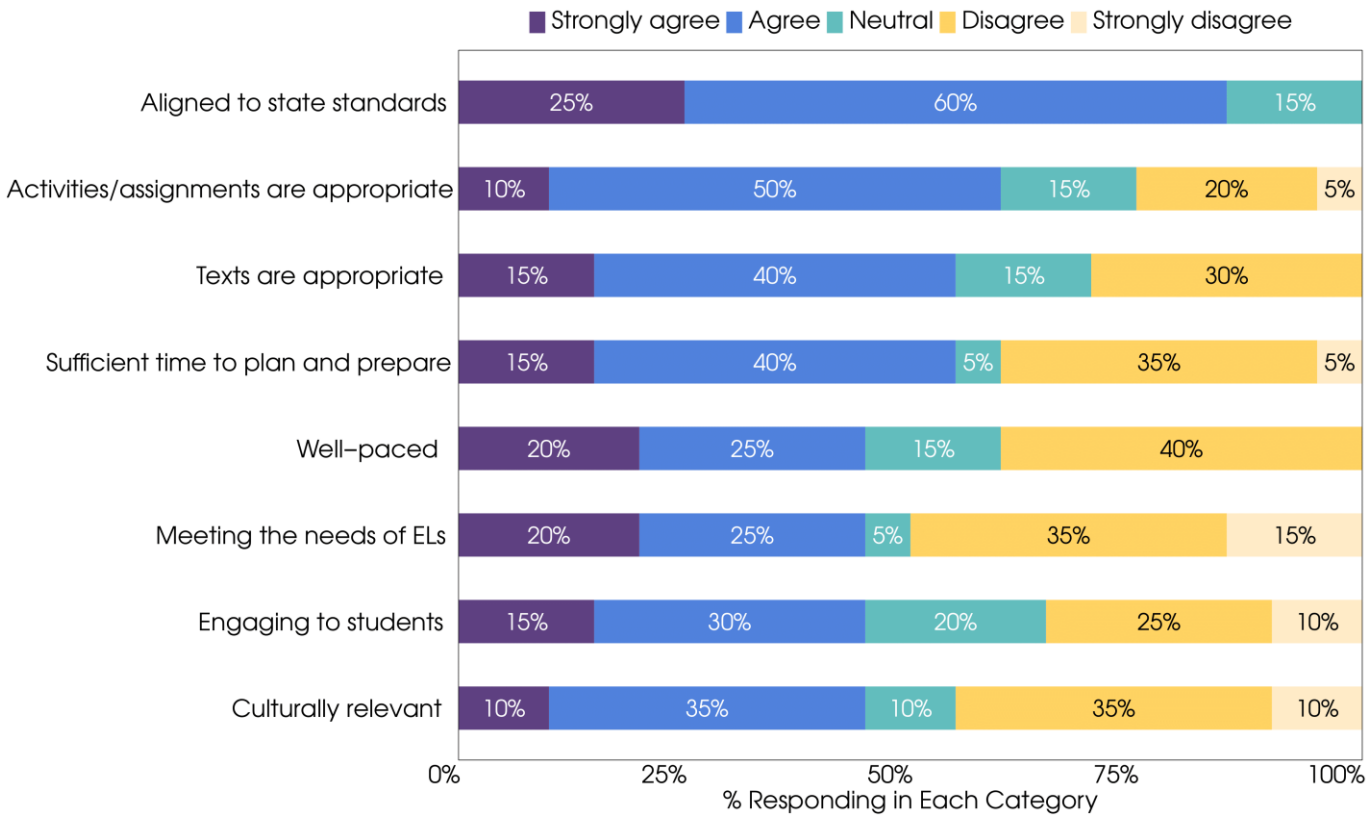

FIGURE 1. STUDY TEACHERS' PERCEPTIONS OF THE TYPICAL EIGHTH-GRADE ELA CURRICULA

Note. *n* = 20

SCHEDULE OF MAJOR MILESTONES

The project began in January 2024, and recruitment continued through the fall. Figure 2 lists the major milestones in this study and associated dates.

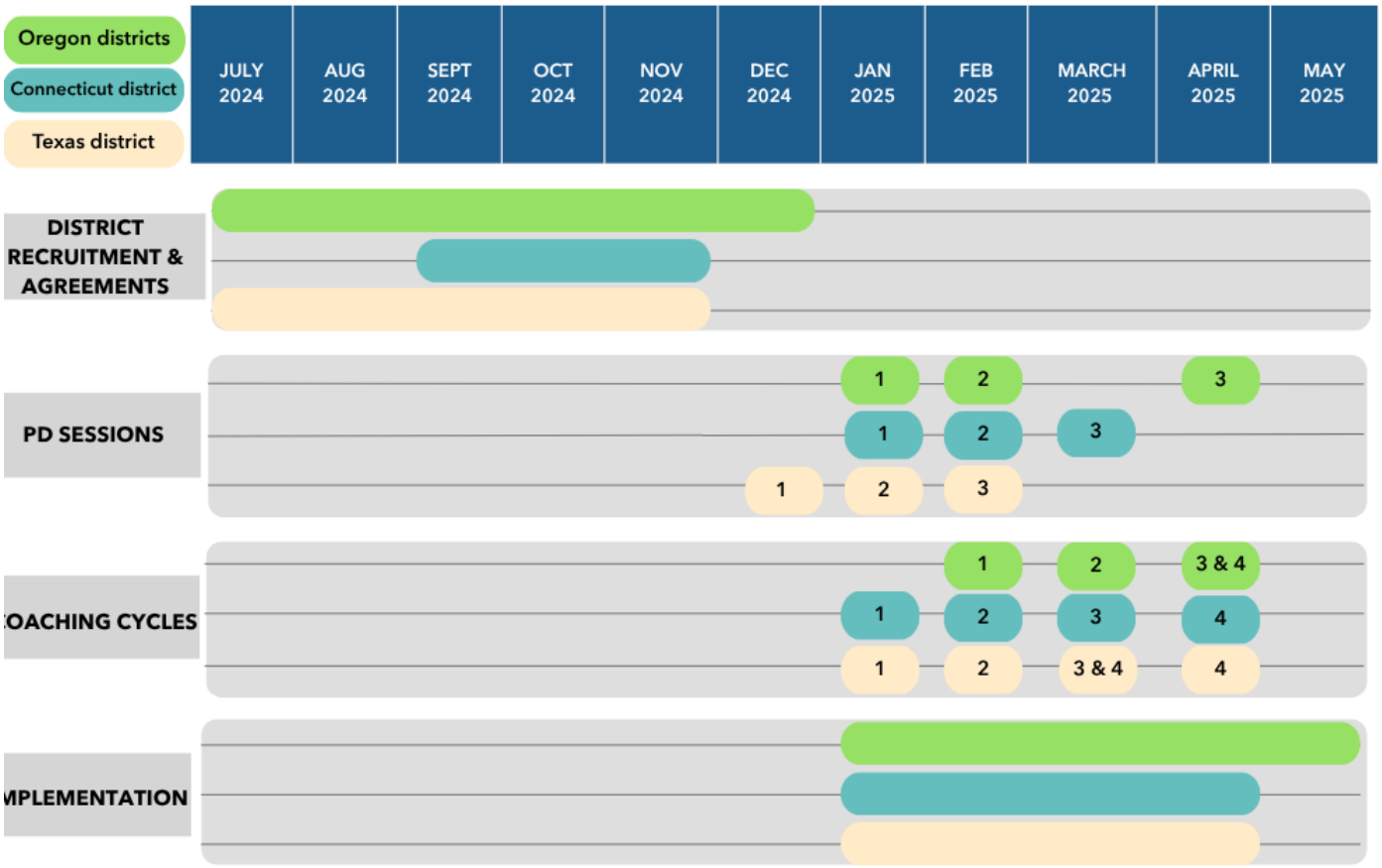

FIGURE 2. RESEARCH MILESTONES FOR THE E-ELA CURRICULUM STUDY

Note. Numbers identify which PD session or coaching cycle coincided with that point in the timeline. PD Session 1 was two days. PD Sessions 2 and 3 were one day.

DATA SOURCES AND COLLECTION

The school districts provided the student data for this study, and Empirical and the Center collected the implementation data. The student data consist of state ELA and EL proficiency assessment scores, student demographics, and class rosters. The Center provided data on PD session and coaching attendance. Empirical researchers collected implementation data through teacher surveys, and teacher interviews, and PD session observations. In addition, we have reviewed various program documents and materials.

Class Rosters and Demographic Data

We requested and collected class rosters and student demographics from each district at the conclusion of the study in summer 2025. These data allow us to identify a matched comparison group, compare the program and comparison group in terms of their baseline characteristics, analyze student outcomes data in a way that

organizes them within teachers and within school, and conduct moderator analyses. Specifically, we asked the districts to provide the following student data for all eighth-grade students.

- Classroom teacher unique identifier
- Course name and section
- Unique student identifier and the following student-level data:
    - Grade
    - Gender
    - Race and ethnicity
    - English proficiency status and dates of classification
    - Special education classification
    - State-mandated ELA and EL proficiency test scores from spring 2024 (as a pretest) and spring 2025 (as the outcome)

We stripped all student and teacher data having individually identifying characteristics of such identifiers for analysis, and stored the data using security procedures consistent with the provisions of the Family Educational Rights and Privacy Act (FERPA). This study falls within the protocol approved by WestEd's Institutional Review Board. Under this protocol and following FERPA guidelines, student or parental permission was not necessary, nor was it was required by the school district.

Achievement Measures

We employed two outcome measures to determine whether E-ELA curriculum is effective at improving outcomes for students in eighth-grade classes: state ELA assessments (STAAR in Texas and Smarter Balanced in Oregon and Connecticut) and state EL proficiency assessments (TELPAS in Texas, ELPA in Oregon, and LAS Links in Connecticut).

State ELA Assessments

The State of Texas Assessments of Academic Readiness (STAAR) Reading and Language Arts test is administered every spring to students in Grades 3 through 8 (TEA, n.d.-a). The test directly aligns to the Texas Essential Knowledge and Skills, and is criterion-referenced. Students receive a scale score and a proficiency level: Did Not Meet, Approaches, Meets, and Masters.

Oregon and Connecticut each partner with Smarter Balanced to develop their state summative assessments in ELA. The OR test aligns with the Oregon State Standards, while the CT test aligns to the Connecticut Core Standards. The tests are norm-referenced, and students receive a scale score and a performance level: Not Met, Nearly Met, Met, or Exceeded (CTDOE, n.d.-a, ORDOE, n.d.-a).

State English Language Proficiency Assessments

The Texas English Language Proficiency Assessment System (TELPAS) is the statewide English proficiency examination and aligns with the Texas English Language Proficiency Standards (TEA, n.d.-b). All students classified as ELs take the assessment each spring in grades K–12, until they are reclassified. The assessment includes four domains: reading, writing, speaking, and listening. Students receive a scale score and proficiency level (Beginning, Intermediate, Advanced, Advanced High).

Oregon belongs to a group of states that administers the English Language Proficiency Assessment for the 21st Century (ELPA), which is based on the English Language Proficiency Standards (ORDOE, n.d.-b). All students classified as ELs take the assessment each spring in grades K–12, until they are reclassified. The assessment includes four domains: reading, writing, speaking, and listening. Students receive a scale score and proficiency level (Beginning, Early Intermediate, Intermediate, Early Advanced, Advanced).

In Connecticut, students classified as ELs in grades K–12 take the LAS Links EL Proficiency Assessment from DRC (CTDOE, n.d.-b). The assessment includes four domains: reading, writing, speaking, and listening. Students receive a scale score and proficiency level (Beginning, Early Intermediate, Intermediate, Proficient, Above Proficient).

Testing Schedule

For both ELA and ELP state assessments, we used scores available from the previous year's spring testing (2023–2024 school year) as a pretest measure, and the scores from spring 2025 as the outcome measure. The district collected these data and securely transferred them to us. While we originally expected implementation to be completed before the state ELA testing windows in late April/early May, several teachers were unable to finish implementation of all three units before the testing window, and several did not finish before the end of the school year. These constraints are discussed further in the following chapter. The testing windows for the EL proficiency assessments generally begins earlier in the spring, with some students completing the assessment as early as February. The implications of these differences are addressed in the Sample Formation and Analysis Methods section below.

Program Implementation Measures

In addition to achievement and demographic data, we also collected implementation data over the entire period of the study, beginning with the teacher PD sessions in December 2024 and ending with the academic calendar of the districts in June 2025. Data collected through pre-implementation questions, PD session observations, multiple teacher surveys, and interviews provide evidence of the implementation. Figure 3 outlines the timeline of the major data collection phases.

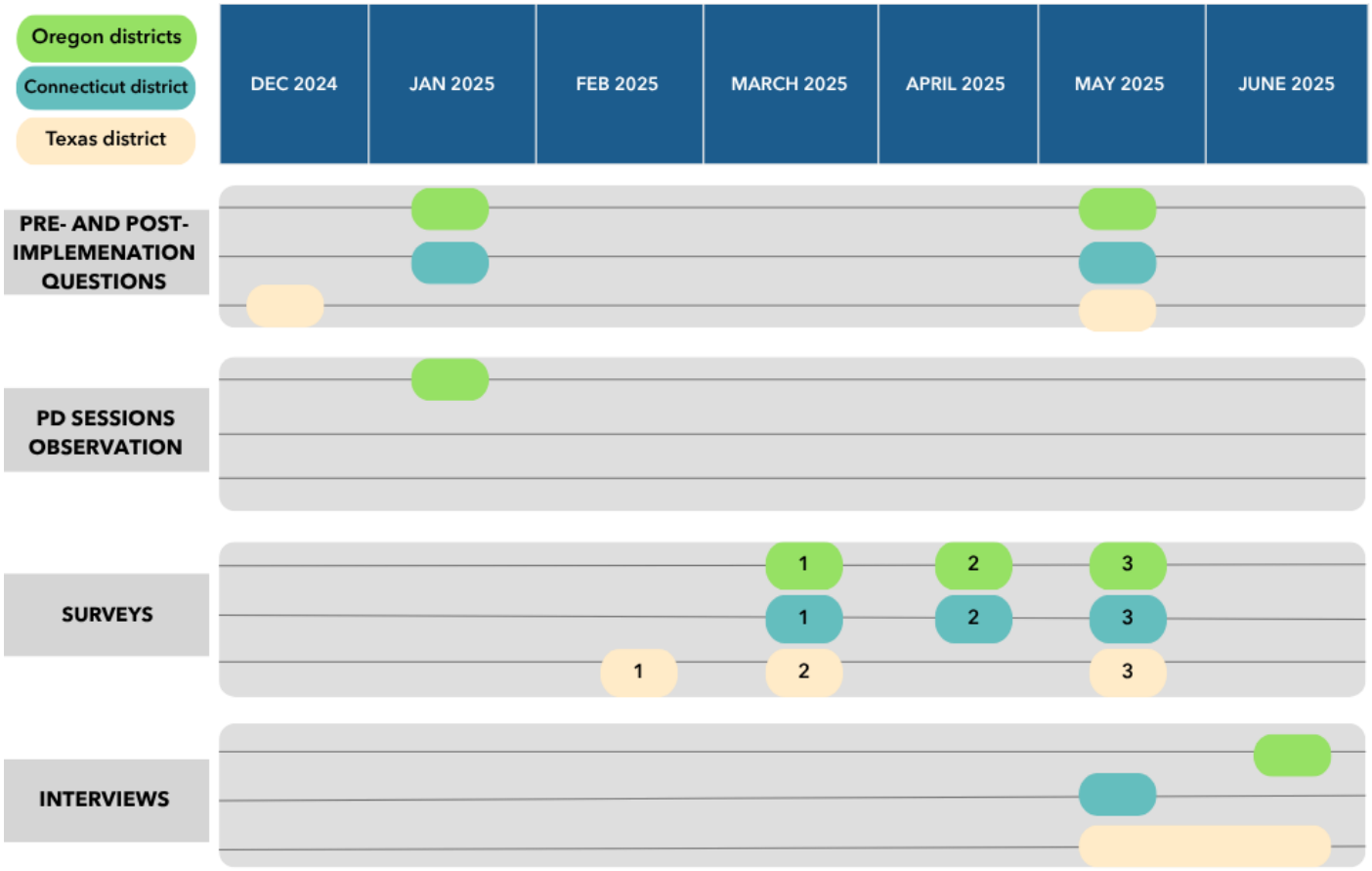

FIGURE 3. IMPLEMENTATION DATA COLLECTION SCHEDULE

Note. Numbers identify which survey coincided with that point in the timeline. The program developers shared the coaching attendance, PD rosters, and program materials throughout the study year.

Pre and Post-Implementation Questions

During PD session 1, teachers completed eight Likert-scale questions about their perceptions of ELD instruction, along with open-ended responses to explain their reasoning. The Center facilitation team developed and administered these items. The consent form informed teachers that, if they agreed to participate, the facilitation team would share these data with the Empirical research team. We included the same questions were on the third and final surveys, to examine whether teachers' perceptions changed through implementing the E-ELA curriculum and through participating in the PD and coaching.

PD Sessions Observation

One member of the Empirical research team observed the first PD session in the Oregon districts. We also asked additional questions about all three PD sessions through the teacher surveys. We used these data to describe the content of, and teacher satisfaction with, the PD.

Teacher Surveys

We administered online implementation surveys to participating teachers between February and May 2025. Table 3 outlines the survey schedule and the response rates for the 20 E-ELA curriculum teachers participating in the study. The response rates were extremely high, with all but one teacher completing all surveys.

TABLE 3. SURVEY PARTICIPATION RATES

Survey	Response rates
Consent form and Survey 1	100% (*n* = 20)
Survey 2	100% (*n* = 20)
Survey 3	95% (*n* = 19)

Note. One Texas district teacher did not complete Survey 3.

In each district, we deployed the consent form and Survey 1 once we received district permission, which in all cases occurred after the first PD session. After agreeing to participate in the study, teachers received Survey 1, which included questions about their primary position, education level completed, teaching credentials and certifications, years of teaching experience, and personal demographic information.

We developed the additional survey topics to account for the various aspects of teacher and student actions associated with the E-ELA curriculum implementation. For example, in order to characterize teacher satisfaction using the E-ELA curriculum, we asked the same question across surveys. These questions, together with other types of survey questions, allow us to draw inferences about the nature of satisfaction for each unit, as well as implementing the materials as a whole. Items were single-response, Likert-scale, or open-ended questions. The Center facilitation team also created scales to help measure the usability and feasibility of each unit, which were on the surveys. We report quantitative survey data using descriptive statistics. The free-response portions of the surveys are minimally coded.

Along with initial teacher background info, the survey topics included, but were not limited to, the following.

- Co-teaching status: Were they co-teaching, and if so, how were responsibilities divided?
- Implementation: Were they implementing the E-ELA curriculum in all of their assigned eighth-grade ELA classes? If not, how many eighth-grade ELA classes were using the E-ELA curriculum, and why did they choose those classes?
- Perceptions of their typical eighth-grade ELA curriculum
- Any previous QTEL PD
- Unit completion: Did they start and complete each E-ELA curriculum unit?
- Material availability: Did they have all the necessary teacher and student E-ELA curriculum to implement each unit?
- Usability of each E-ELA curriculum unit
- Feasibility of each E-ELA curriculum unit
- Suitability of each E-ELA curriculum unit
- Benefits and challenges of implementing each E-ELA curriculum unit

We were particularly interested in teachers' perceptions of the effect of the replacement E-ELA curriculum for their students and their perceptions of student engagement with the content.

Professional Development Sessions and Coaching Cycles Feedback

Surveys also included several questions about teachers' experiences, attendance, and participation with PD and coaching sessions. To the best of our ability, we coordinated the launch of surveys to take place after PD session 1, PD session 2, and PD session 3. We anticipated that data from these questions would help improve the way the program developers trained and delivered support to teachers using the E-ELA curriculum.

Teacher Interviews

We interviewed a subsample of seven teachers, with at least one from each of the four districts. Interviews took place virtually in May and June 2025. Teachers were to reflect on their experiences with PD, coaching, implementation, and the educative nature of the replacement materials (see Appendix A for the full interview protocol). Interview questions included the following.

- Previous PD experiences supporting ELs
- Preparedness to implement the E-ELA curriculum following PD
- Contributions of coaching sessions to implementation

- Experiences with curriculum implementation
- Observed student outcomes and impact
- Influence of the E-ELA curriculum on teaching practices and perceptions of ELs

SAMPLE FORMATION AND ANALYSIS METHODS

This section describes the study sample that we used to assess the effect of the E-ELA curriculum on student outcomes. For each research question, the sample begins with all eighth-grade students in the four school districts. We then narrow the sample based on students with outcome data and classification by student EL categories. The first three research questions use student ELA outcomes, while the fourth uses ELP outcomes.

Sample Formation and Matching for ELA Outcomes (Research Questions 1 and 2)

The starting point for the analysis of the effectiveness of E-ELA for ELA outcomes was the combined eighth-grade student records from the four districts. We excluded records with missing pretest or posttest scores. We also excluded a small number of records in which the test was off grade level (mostly students taking ninth-grade English in the eighth grade). Finally, to avoid selection bias and contamination, we excluded several class sections (periods) where participating teachers decided to teach with their existing ELA curriculum, and not with the E-ELA curriculum.

We converted the scale scores from two assessments—STAAR in the TX district and Smarter Balanced in the three other districts—to z-scores using published score conversion tables (TEA, 2025; Smarter Balanced, 2022). Since the Smarter Balanced percentile tables included values only for selected percentiles, we interpolated z-scores for the remaining percentiles using a score-regression model.

We used the starting and ending dates of EL designation (provided by the school districts) to create a four-way classification for all students: English proficient (native English speaker or reclassified as proficient in English), long-term English learner (LTEL, an EL who has not been reclassified as proficient in English after six or more years), newcomer EL (a student who entered the U.S. school system within the prior two years), and the remainder of EL students whose time of EL classification was in-between the LTEL and newcomer categories, which we refer to as intermediate EL. For the purposes of the study period, the dates are shown in Figure 4.

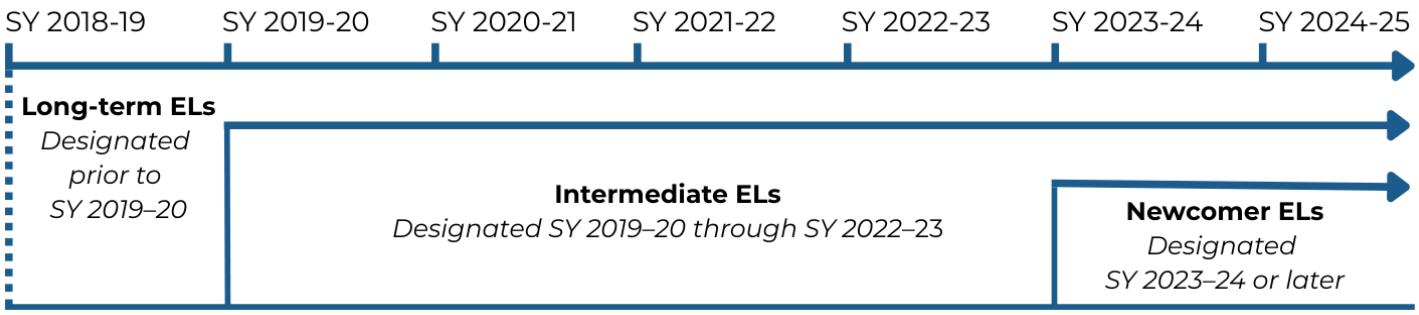

FIGURE 4. LENGTH OF EL CLASSIFICATION

Note. SY stands for school year. EL stands for English Learner.

Characteristics of the initial dataset for the ELA outcomes analysis are shown in Table 4 and Table 5 below.

TABLE 4. STUDENT CHARACTERISTICS OF ELA SAMPLE BEFORE MATCHING

Category	E-ELA	Comparison	Total
All students	920	4,844	5,764
LTEL	257	1,039	1,296
Intermediate EL	53	160	213
Newcomer EL	56	235	291
English proficient	554	3,410	3,964
% Female	44.7	46.7	
% Asian	10.2	10.9	
% Black	5.2	5.7	
% Hispanic	71.1	54.3	
% White	12.3	25.7	
% Receiving special education services	14.0	13.0	
Teachers	17	92	109

Note. We assigned students in classes with implementing teachers and co-teachers only to the ELA teacher of record, reducing the number of E-ELA teachers in the sample.

TABLE 5. BASELINE EQUIVALENCE OF ELA PRETEST FOR ELA SAMPLE BEFORE MATCHING

Category	E-ELA *n*	E-ELA z-score mean	Comparison *n*	Comparison z-score mean	Pooled Std. Dev.	Difference	Standardized mean difference
LTEL	257	-0.578	1296	-0.604	1.019	0.025	0.025
Intermediate EL	53	-1.110	213	-1.092	0.922	-0.018	0.020
Newcomer EL	56	-0.320	291	-0.787	1.302	0.468	0.359
English proficient	554	-0.031	3964	-0.093	1.090	0.063	0.058
All students	920	-0.263	5764	-0.270	1.118	0.006	0.005

We then applied a matching procedure to the dataset to produce a smaller matched sample with improved pretest balance. We used optimal propensity score matching with a target 3:1 comparison-to-treatment ratio. Covariates in the propensity score model included the pretest score, student characteristics, and classroom characteristics. In addition, exact matching on district ID and EL category ensured that the closest match to a student in the E-ELA group was always selected from the same district and with the same EL status. The resulting matched sample therefore consists of 16 cells (four districts by four EL categories). The matching process did not remove any of the E-ELA units; however, we could not match all E-ELA units to three comparison units. We performed matching using the *MatchIt* package in R. The size and properties of the matched sample are in Table 6 and Table 7 below.

TABLE 6. STUDENT CHARACTERISTICS OF ELA ANALYTIC MATCHED SAMPLE

Category	E-ELA	Comparison	Total
All EL statuses	920	2559	3479
LTEL	257	650	907
Intermediate EL	53	125	178
Newcomer EL	56	159	215
English proficient	554	1,625	2,179

TABLE 6. STUDENT CHARACTERISTICS OF ELA ANALYTIC MATCHED SAMPLE

Category	E-ELA	Comparison	Total
All students	920	2,559	3,479
% Female	44.7	46.7	
% Asian	10.2	9.8	
% Black	5.2	6.3	
% Hispanic	71.1	66.7	
% White	12.3	15.4	
% Receiving special education services	14.0	13.8	
Teachers	17	68	85

TABLE 7. BASELINE EQUIVALENCE OF ELA PRETEST FOR ELA ANALYTIC MATCHED SAMPLE

Category	E-ELA *n*	E-ELA mean	Comparison *n*	Comparison mean	Pooled Std. Dev.	Difference	Standardized mean difference
LTEL	257	-0.578	650	-0.593	0.980	0.015	0.015
Intermediate EL	53	-1.110	125	-1.068	0.961	-0.042	0.044
Newcomer EL	56	-0.320	169	-0.395	1.322	0.075	0.057
English proficient	554	-0.031	1625	-0.129	1.091	0.098	0.090
All students	920	-0.263	2559	-0.309	1.108	0.046	0.041

Table 10 shows that the E-ELA and comparison groups are well balanced overall and within each level of EL classification, with standardized mean differences far below the 0.25 threshold required by WWC for quasi-experimental studies. The matched sample is also well balanced on student demographics, as shown in Table 9. Although the matching procedure improved balance overall, the improvement is most substantial for the newcomer EL group.

Sample Formation and Matching for ELA Outcomes (Research Question 3)

We used a modification of the process described above to construct a matched sample for the third research question: the effect of E-ELA under high fidelity of implementation. For this purpose, we limited the treatment group to classes taught by "high implementers" which we defined as teachers who attended all professional development sessions, completed all coaching activities, and implemented all three units. We matched this smaller treatment group to comparison units following the same approach used for the first and second

research questions. The characteristics of the resulting matched sample are shown in Table 8 and Table 9 below.

TABLE 8. STUDENT CHARACTERISTICS OF ELA ANALYTIC MATCHED SAMPLE OF HIGH IMPLEMENTING TEACHERS

Group	E-ELA	Comparison	Total
All EL statuses	290	856	1146
LTEL	84	252	336
Intermediate EL	17	44	61
Newcomer EL	26	71	97
English proficient	163	489	652
All students	290	856	1146
% Female	42.4	46.1	
% Asian	1.4	1.8	
% Black	5.5	6.4	
% Hispanic	84.5	81.0	
% White	6.9	8.8	
% Receiving special education services	20.7	21.5	
Teacher	7	38	45

TABLE 9. BASELINE EQUIVALENCE OF ELA ANALYTIC MATCHED SAMPLE OF HIGH IMPLEMENTING TEACHERS

Category	E-ELA *n*	E-ELA mean	Comparison *n*	Comparison mean	Pooled Std. Dev.	Difference	Standardized mean difference
LTEL	84	-0.707	252	-0.626	0.844	-0.080	0.095
Intermediate EL	17	-1.319	44	-1.535	0.717	0.215	0.300
Newcomer EL	26	0.751	71	0.660	1.304	-0.091	0.070
English proficient	163	-0.391	489	-0.559	0.941	0.167	0.178
All students	290	-0.569	856	-0.637	0.963	0.068	0.070

We characterize the high-implementer matched sample as having poorer baseline equivalence than the main ELA sample: standardized mean differences on the pretest are higher than in the main sample, and for one subgroup—intermediate EL—exceed 0.25. This is a result of the smaller size of this sample.

Methods of Analysis for ELA Outcomes

We estimated a multilevel linear regression model to assess the impact of program participation on student ELA test scores. Although the first research question focuses on LTEL students, each classroom in the study includes a mix of English-proficient students and multiple English-learner subgroups, including LTELs. We therefore estimated a single model, in which EL status moderates the program effect, implemented as an interaction between program status and the English-learner classification. This approach simultaneously provides results for the first research question concerning LTELs and for the second research question regarding differences across EL subgroups.

The outcome variable is the posttest z-score. Covariates include all available student- and classroom-level characteristics. Student-level covariates include pretest score, special education status, race/ethnicity, and gender. Because pretests and posttests are drawn from different assessments, the pretest enters the model with assessment-specific slopes. Classroom-level covariates include percentages of racial/ethnic categories and EL categories, percentage female, percentage of students receiving special education services, the classroom mean and standard deviation of pretest scores, and class size; these variables adjust for differences in peer composition. To account for clustering, the model includes random intercepts for teachers and for classrooms (sections) nested within teachers, as teachers may teach multiple sections. We fit the model by restricted maximum likelihood using the R function *lmer*. Pairwise differences in subgroup-specific treatment effects were evaluated using linear contrasts of estimated marginal means, with Holm-adjusted p-values to control the family-wise error rate (R package *emmeans*).

We used sensitivity analysis to estimate two variants of the main model:

1. A model that additionally includes district-level fixed effects to account for idiosyncratic differences across districts
2. A model excluding section-level covariates, which do not reach statistical significance in the main model

We applied the same analytical procedure to both the main sample and the high-implementer sample.

Sample Formation for ELP Outcomes (Research Question 4)

The starting point for the analysis of the effect on ELP outcomes was the combined records for eighth graders who are English learners from the four districts. In the TX and CT districts, all EL students took the English proficiency assessment early in the spring semester, only a few weeks after the beginning of the E-ELA program. By contrast, the two OR districts offered similar assessments throughout the semester. This made a study of the association between the program and scores on the English proficiency assessment feasible, albeit limited to one state and therefore to one ELP assessment—ELPA—and confined to a smaller sample.

We report ELPA results separately for four domains: Listening, Speaking, Reading, and Writing. Students typically—but not necessarily—have assessment scores in all four. We included all students who had a pair of pretest and posttest scores in each domain. For each student, we calculated the number of days between the

start of E-ELA implementation and the test date, which served as a metric of exposure to the program, or "dosage." The program developer provided the timing of the start of E-ELA, whereas each student's test record offered the precise test date. Characteristics of the ELPA dataset are shown in Table 10.

TABLE 10. BASELINE EQUIVALENCE OF ELPA SAMPLE

Category	E-ELA *n*	E-ELA mean	Comparison *n*	Comparison mean	Pooled Std. Dev.	Difference	Standardized mean difference
Students	74		329				
Teachers	4		26				
% LTEL		44.6		35.0			
% Receiving special education services		6.8		10.8			
ELPA Writing pretest		504.6		497.8	76.8	6.8	0.089
ELPA Reading pretest		523.4		513.2	64.0	10.2	.159
ELPA Listening pretest		517.5		511.8	67.8	5.7	.084
ELPA Speaking pretest		532.5		503.4	92.3	29.1	.315

The ELPA dataset is well balanced on pretest, but fairly small and not well balanced on the percentages of students with different lengths of EL classification.

Methods of Analysis for ELP Outcomes

We determined the specifics of the procedure we used to explore the effect of the E-ELA on ELPA scores by the fact that none of the students in the sample was exposed to the program for the full 12 weeks. This created the necessity to run exploratory analyses to identify the impact dosage: the minimum number of days since the program started that would allow us to discern a positive effect. We therefore ran the following iterative procedure: select the subset of treatment students with the dosage of N days or more; create a well-balanced matched sample by matching the selected treatment students to comparison group students; then estimate the effect in the sample; repeat for N+1, etc. The range of N in the dataset is 44 to 66.

Each iteration included matching and multilevel model estimation following the same approaches as described earlier for ELA. Propensity function covariates included pretest scores in all four domains, and district and EL status required exact matching.

Chapter 3. Implementation Findings

In this section, we provide a description of E-ELA PD and coaching and the implementation of the curriculum in classrooms of participating teachers to inform the interpretation of student outcomes. Data for this section were largely from three online teacher surveys and a sample of teacher interviews. Implementation results cover the following categories.

- Conditions for implementation and use of E-ELA curriculum
- Teacher perceptions of the E-ELA curriculum
- Changes in teachers' instructional beliefs
- Benefits and challenges of implementation

CONDITIONS FOR IMPLEMENTATION AND USE OF E-ELA CURRICULUM

Here we provide a description of the conditions under which implementation took place. Specifically, we present data on PD and coaching, curriculum materials, and completion of the units.

Professional Development

In the OR districts, six out of the seven participants attended all three PD session; only one teacher missed the final session. All five participants in the CT district attended all three PD sessions. In the TX district, one participant missed one of the four PD days, the other seven participants attended all four PD days. Teachers did not receive make-up PD if they missed a PD session. In addition to participating teachers, instructional coaches and a bilingual department director were present during some of the PD sessions. A member of our research team was also able to attend the first PD session in Portland. Table 11 summarizes this information.

TABLE 11. SESSIONS OF PROFESSIONAL DEVELOPMENT ATTENDANCE

	Attended 3 PD sessions	Attended 2 PD sessions	Attended 1 PD session
Oregon districts	6	1	0
(*n* = 7)	(86%)	(14%)	(0%)
Connecticut district	5	0	0
(*n* = 5)	(100%)	(0%)	(0%)
Texas district	7	1	0
(*n* = 8)	(88%)	(13%)	(0%)
Total	18	2	0
(n = 20)	(90%)	(10%)	(0%)

Note. Some percentages do not add up to 100% due to rounding. PD session 1 was two days. PD sessions 2 and 3 were one day.

When asked about the initial two-day PD session, all teachers responded that the PD either *Very much* or *Quite a bit* improved their capacity to do the following. See Figure 5 below.

- Get your questions about the E-ELA replacement materials answered
- Engage with the E-ELA replacement materials yourself
- Understand the goals of the E-ELA replacement materials
- Implement the E-ELA replacement materials in your classroom
- Understand the benefits of the E-ELA replacement materials *specifically for English Learners*
- Understand the benefits of the E-ELA replacement materials *for all students*

Importantly, three-quarters of the teachers reported that the PD *Very much* improved their understanding of the benefit of the materials *specifically for ELs*.

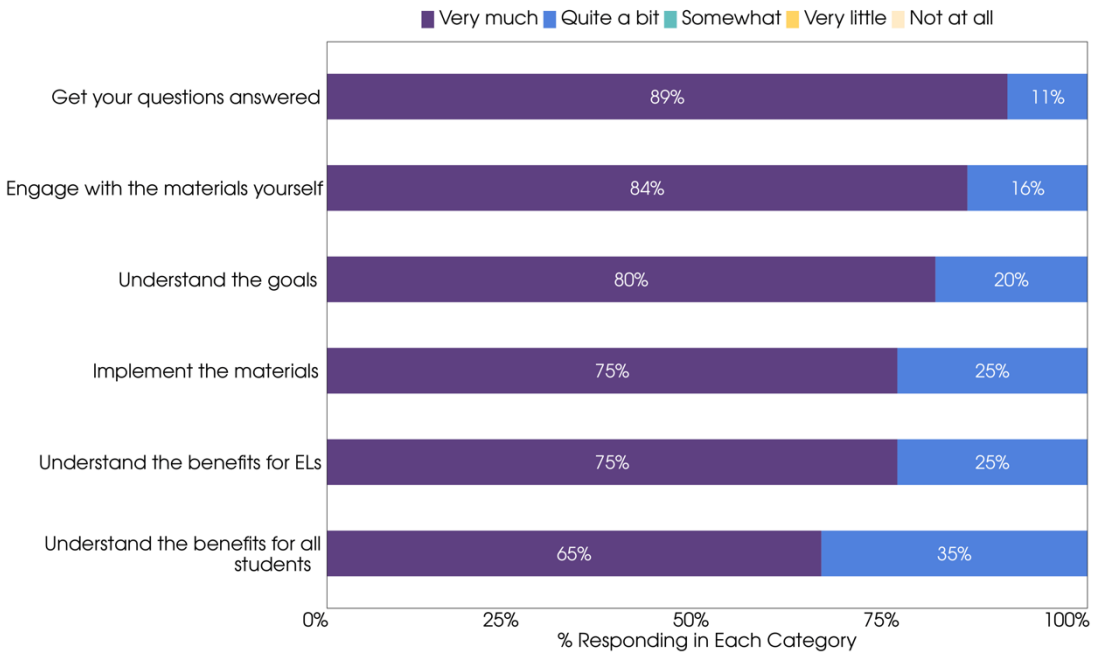

FIGURE 5. TEACHERS' REPORTS OF EXTENT TO WHICH FIRST PROFESSIONAL DEVELOPMENT SESSION IMPROVED THEIR CAPACITY

Note. *n* = 19 or 20, depending on item

As shown in Table 12, the percentage of teachers reporting the PD *Very much* improved their understanding of the benefit of E-ELA curriculum for ELs during the 2nd PD session (which focused on Unit 2) decreased to 50% compared to the first session, with slightly smaller decreases in teachers' reports of understanding across other

categories. The responses to the third PD session were similar to the first, with the exception of fewer teachers reporting they *Very much* understood how to implement the materials.

TABLE 12. PERCENTAGE OF TEACHERS REPORTING THE PD *VERY MUCH* IMPROVED THEIR CAPACITY

	PD Session 1 (Unit 1) *n* = 20	PD Session 2 (Unit 2) *n* = 20	PD Session 3 (Unit 3) *n* = 19
Get your questions answered	17 (89%)	13 (65%)	16 (84%)
Engage with the materials yourself	16 (80%)	14 (70%)	14 (74%)
Understand the goals	16 (80%)	13 (65%)	14 (74%)
Implement the materials	16 (84%)	14 (70%)	13 (68%)
Understand the benefits for ELs	15 (75%)	10 (50%)	14 (74%)
Understand the benefits for all students	13 (65%)	12 (60%)	15 (79%)

Overall, teachers reported that participating in the PD sessions prepared them to implement the replacement materials. During the interviews, some teachers shared that they appreciated that the PD sessions were spaced out and that they would have disliked all four PD sessions being scheduled consecutively. After the PD sessions, teachers felt empowered, confident, and excited. For example, a CT district teacher said, "I felt very prepared and excited to get started" (Survey 1, March 2025). The PD sessions helped teachers prepare to implement the materials and address any questions or concerns. A key part of this preparation involved receiving the materials before the PD session, which a few teachers said rarely happens. Supporting this idea, a teacher shared how receiving the materials beforehand made a difference, especially compared to the district PD they attended.

> We were given all of the materials ahead of time so we could actually review them and come prepared. Whereas, in my district, we would often go into professional development and have never having seen the curriculum. So then, we're just trying to dissect and digest as much as possible, and there's not a clear way to get any questions answered after maybe a one-day meeting. (TX district teacher, Interview, June 2025)

Additionally, teachers emphasized the positive effects of experiential learning during the PD sessions. Qualitative data showed that experiencing the materials from the student's perspective was new for most

teachers, but helped them feel more prepared to teach their lessons, because it helped them understand what students would experience. A teacher stated,

> [I]t was always useful to spend time doing the activities and going through the process as students. So the professional learning puts you in the seat of the learner, practicing the strategies. So that was something that I really, really always looked forward to and felt was essential. (TX district teacher, Interview, June 2025)

Teachers also valued the opportunity to watch the program developers teach a lesson and then practice teaching in front of other educators. A teacher from the CT district expressed gratitude for this chance, noting that it allowed them to address their questions (Survey 3, May 2025). They valued the PD sessions for their organization and the time provided to prepare to implement the replacement materials and strategies effectively.

Coaching

The program developers planned to hold four coaching cycles with each teacher. However, due to unanticipated events, scheduling the set of two observations and debriefs was not possible for each coaching cycle for some teachers.

In the OR districts, one of the seven participants completed two observations and two debriefs for four coaching cycles. Three participants completed all three intended coaching cycles, including two observations and debriefs per cycle; two participants fully completed two cycles, and one participant completed one cycle. Participants could not complete the intended four coaching cycles due to factors such as weather disruptions, testing, class schedules, and illness.

Three of the five participants in the CT district fully completed all four coaching cycles. Two of these three participants completed an additional third set of observation and debrief sessions during one coaching cycle, and one participant completed an additional third set during two coaching cycles. These teachers' schedules allowed for additional observations to occur. The two other participants competed three of the four coaching cycles. One of these participants implemented before Coaching Cycle 4 began, and the other could not complete the final coaching cycle due to personal circumstances.

In the TX district, four of the eight participants fully completed four coaching cycles, three completed three coaching cycles, and one participant completed two coaching cycles. Scheduling was more challenging for program developers due to the TX district's participating teachers being spread across more schools than those in the CT and OR districts. Table 13 summarizes this information. For more information about when each district completed the four coaching cycles, please see Figure 2.

TABLE 13. COACHING CYCLE ATTENDANCE

	Completed 4 coaching cycles	Completed 3 coaching cycles	Completed 2 coaching cycles	Completed 1 coaching cycle
Oregon districts	1	3	2	1
(*n* = 7)	(14%)	(43%)	(29%)	(14%)
Connecticut district	3	2	0	0
(*n* = 5)	(60%)	(40%)	(0%)	(0%)
Texas district	4	3	1	0
(*n* = 8)	(50%)	(38%)	(13%)	(0%)
Total	8	8	3	1
(*N* = 20)	(40%)	(40%)	(15%)	(5%)

Through short-answer responses on surveys and interview data, teachers shared that one of the most successful aspects of participating in the coaching sessions was the program developers' feedback style. Teachers appreciated the program developers' clear, constructive, and genuine approach. A teacher in the CT district expressed appreciation for the program developers sharing that they were doing a good job—something this teacher does not hear often (Survey 3, May 2025). Many teachers shared this sentiment, stating that the coach provided support as "someone who wanted me to do well—not someone with an itemized checklist" (TX district teacher, Survey 3, May 2025). Teachers valued the supportive feedback they received during the coaching cycles.

A unique aspect highlighted by teachers as successful was how the program developers used their knowledge of supporting ELs to tailor their coaching toward the effective implementation of the replacement materials. Several teachers shared that other coaching opportunities they had received came from individuals who lacked extensive classroom experience and seemed more focused on checking boxes than genuinely supporting classroom realities. A teacher from the OR districts shared, "It's easier when knowing that the person coming in has been a teacher and someone that I can look up to. [They've] taught more ESL kids than I have" (Interview, June 2025). Having the program developers provide coaching allowed teachers to receive very specific, timely feedback on instructional techniques embedded throughout the replacement materials. One teacher shared, "[the program developer] taught me new strategies to apply in my class that I can utilize with ALL students. Not just MLLs [multilanguage learners]" (CT district teacher, Survey 3, May 2025). Receiving coaching from knowledgeable and highly experienced program developers enabled teachers to get their questions answered and better implement strategies to support learning for all students.

While teachers expressed benefits from participating in coaching, the most common challenge they mentioned was scheduling. A teacher in the TX district noted that it was difficult for them to give up several conference periods for the coaching debrief sessions and shared that sometimes they would be notified one or two days in

advance of an observation session (Survey 3, May 2025). When asked what the most challenging aspect of the coaching sessions was, a participant in the OR districts shared, "Scheduling and the time commitment. We have so little prep time this year, but every coaching session was 100% worth it" (Survey 3, May 2025). Other teachers felt that scheduling the coaching sessions was stressful. While teachers valued the feedback from coaching cycles, they found the scheduling efforts to be burdensome.

E-ELA Curriculum

The program developers planned to provide teachers with all required teacher and student materials. They also planned to align the materials distribution, the supporting PD, and the coaching timelines with the completion of all three units (within a 12-week timeframe). While several teachers reported missing teacher or student materials at the beginning of the first unit, the Center resolved these issues, and they did not reoccur in later units. Due to pacing challenges and scheduling constraints, teachers did experience difficulty completing the curriculum within the 12 weeks, with several teachers unable to complete the third unit (see Table 14).

TABLE 14. COMPLETION OF E-ELA CURRICULUM UNITS

	Unit 1		Unit 2		Unit 3	
	Started	Completed	Started	Completed	Started	Completed
Oregon districts	7	7	7	7	4	1
(*n* = 7)	(100%)	(100%)	(100%)	(100%)	(57%)	(14%)
Connecticut district	5	5	5	5	5	5
(*n* = 5)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)
Texas district	8	8	8	8	7	6
(*n* = 8)	(100%)	(100%)	(100%)	(100%)	(87.5%)	(75%)
Total	20	20	20	20	16	12
(*N* = 20)	(100%)	(100%)	(100%)	(100%)	(80%)	(60%)

TEACHER PERCEPTIONS OF THE E-ELA CURRICULUM

General Suitability of the Materials

We deployed surveys at the end of each unit and asked teachers to rate the suitability of the E-ELA curriculum in a number of categories. We asked teachers the same questions about their typical eighth-grade ELA curriculum (see Figure 1 and Table 15). When compared to responses about their typical eighth-grade ELA curriculum, a higher percentage of teachers *Agreed* or *Strongly agreed* that the E-ELA curriculum was suitable for their students across all categories. Across each unit, 75% or more of teachers reported that they *Agreed* or *Strongly agreed* that the E-ELA curriculum units were well aligned to state standards, that the E-ELA

curriculum was engaging to students, that the activities were appropriate for all students, and that they had sufficient time to prepare (Table 15). Moreover, while only 12 (60%) teachers reported *Agreeing* or *Strongly agreeing* that the materials in Unit 1 were culturally relevant to their students, this increased for Unit 2 and Unit 3, with 17 (90%) teachers reporting that they *Agreed* or *Strongly agreed* that the Unit 3 materials were culturally relevant. However, there was a decrease in the percentage of teachers *Agreeing* or *Strongly agreeing* that the texts were appropriate in Unit 2; these responses were corroborated by open-ended responses about a challenging short story. Additionally, fewer teachers reported agreement that the curriculum was "well-paced" by Unit 3, reflecting scheduling constraints and testing demands. Figure 6shows the variability in responses across units about cultural relevance, appropriateness of text, and pacing, while full results are shown in Appendix B.

TABLE 15. PERCENTAGE OF TEACHERS *AGREEING* OR *STRONGLY AGREEING* ABOUT THE SUITABILITY OF E-ELA CURRICULUM UNITS VERSUS TYPICAL EIGHTH-GRADE ELA CURRICULUM

	Typical eighth-grade curriculum (n = 20)	E-ELA Unit 1 (n = 20)	E-ELA Unit 2 (n = 18)	E-ELA Unit 3 (n = 19)
Aligned to state standards	17 (85%)	18 (90%)	17 (94%)	17 (90%)
Well-paced	9 (45%)	18 (90%)	16 (89%)	14 (73%)
Engaging to students	9 (45%)	17 (85%)	15 (83%)	16 (84%)
Activities/assignments are appropriate for all students	12 (60%)	15 (75%)	15 (83%)	16 (84%)
Texts are appropriate	11 (55%)	15 (75%)	12 (66%)	15 (79%)
Sufficient time to plan and prepare	11 (55%)	16 (75%)	15 (83%)	15 (79%)
Meeting the needs of ELs	9 (45%)	14 (70%)	13 (72%)	14 (73%)
Culturally relevant	9 (45%)	12 (60%)	13 (72%)	17 (90%)

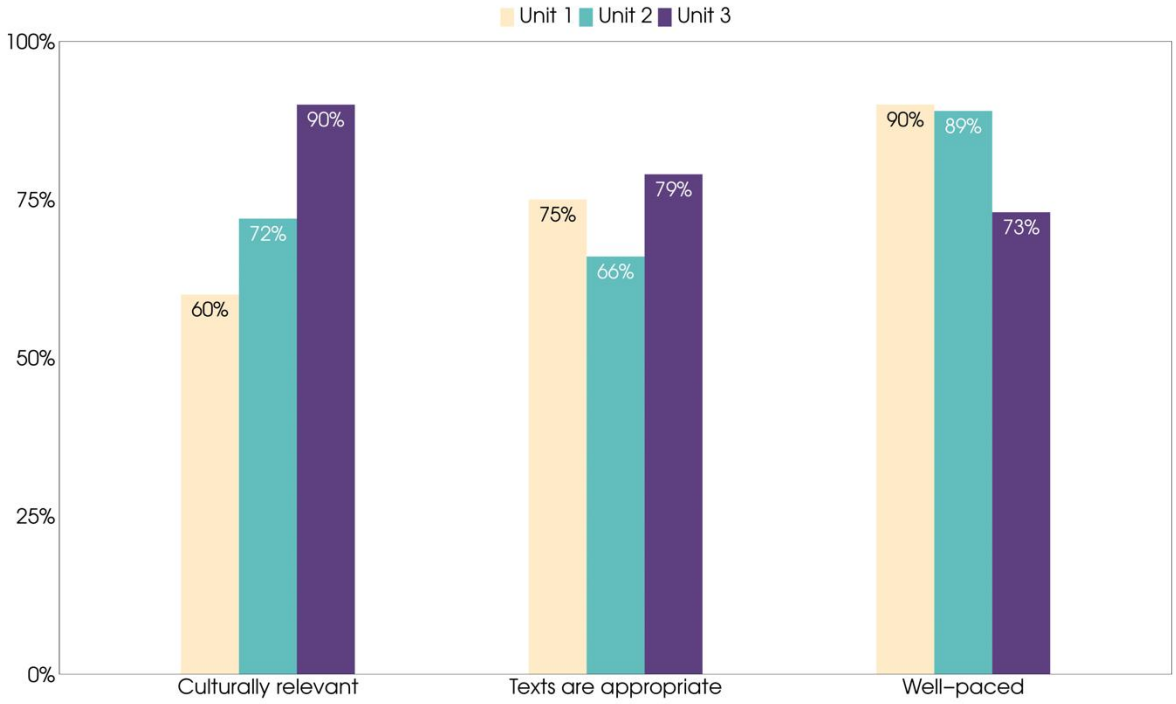

FIGURE 6. PERCENTAGE OF TEACHERS STRONGLY AGREEING OR AGREEING THAT THE E-ELA CURRICULUM ARE CULTURALLY RELEVANT, TEXTS ARE APPROPRIATE, AND UNITS ARE WELL-PACED, ACROSS UNITS

Note. *n* = 19 or 20 for Unit 1, depending on item. *n* = 17 for Unit 2. *n* = 19 for Unit 3.

A Closer Look At Usability and Feasibility of the E-ELA Curriculum

In addition to the general questions about the overall suitability of the E-ELA curriculum, the curriculum developers were also interested in more closely examining how teachers felt about learning to use the materials—what we refer to as usability—and how the materials fit within their classroom contexts, which we term feasibility. Therefore, we asked teachers to more specifically rate each unit in terms of its alignment to state and district standards and expectation, coherence and integration of content, pacing and time to prepare to implement, ease of use, and their confidence and satisfaction implementing (Table 16 includes the constructs and survey items). The survey scales included both positive and negative items, responding on a 5-point Likert scale from *Strongly agree* to *Strongly disagree*. For each item, we assigned responses a numeric value from 1 to 5, with responses to negatively-worded items reverse coded, so that the score for *Strongly agreeing* with a positive item (e.g., I found this unit easy to use) is the same as *Strongly disagreeing* with a negative item (e.g., This unit was unnecessarily complex). In the remainder of this section, we note these negative, reversed statements with (R) and refer only to the percentage of teachers that responded positively, which is the percentage that *Agreed* or *Strongly* agreed with a positive statement or *Disagreed* or *Strongly disagreed* with a negative statement.

TABLE 16. ADDITIONAL SURVEY CONTRUCTS RELATED TO USABILITY AND FEASIBILITY OF THE E-ELA CURRICULUM

Construct	Items
Alignment to state and district standards and expectations	I think that this unit addresses academic standards fully. I had to add additional activities for the unit to meet academic standards. (R) I thought the unit included required texts and genres. I found this unit fit well with the requirements of my school and district. I think this unit does not provide enough for students to do well on state tests. (R)
Coherence and integration of content	I think the unit is coherent, it makes sense to me. I found the various components of the unit were well-integrated. I thought there was too much inconsistency in this unit. (R)
Ease of use	I found the unit unnecessarily complex. (R) I thought the unit was easy to use. I found the unit very cumbersome to implement. (R) I would imagine that most people would learn to use this unit very quickly.
Confidence and satisfaction	I felt very confident using the unit. I needed to learn a lot of things before I could get going with this unit. (R) I would need support or technical assistance to be able to use this unit again. (R) I would like to use the unit frequently.
Pacing and time to prepare	I found the unit took too much time to complete. (R) I was able to use the unit without looking for additional materials. I had to work outside my contracted hours to prepare to use the materials. (R) I needed to omit many activities in order to complete the unit. (R)

Note. (R) indicates a reverse-coded item.

Across all units, teachers reported high levels of alignment with school, district, and state requirements and standards, but a lower percentage of teachers responded positively that the materials prepared students for state tests (Figure 7). Because the developers originally created the E-ELA curriculum for California schools, they did not consider alignment to the implementing districts' state assessments during the design phase.

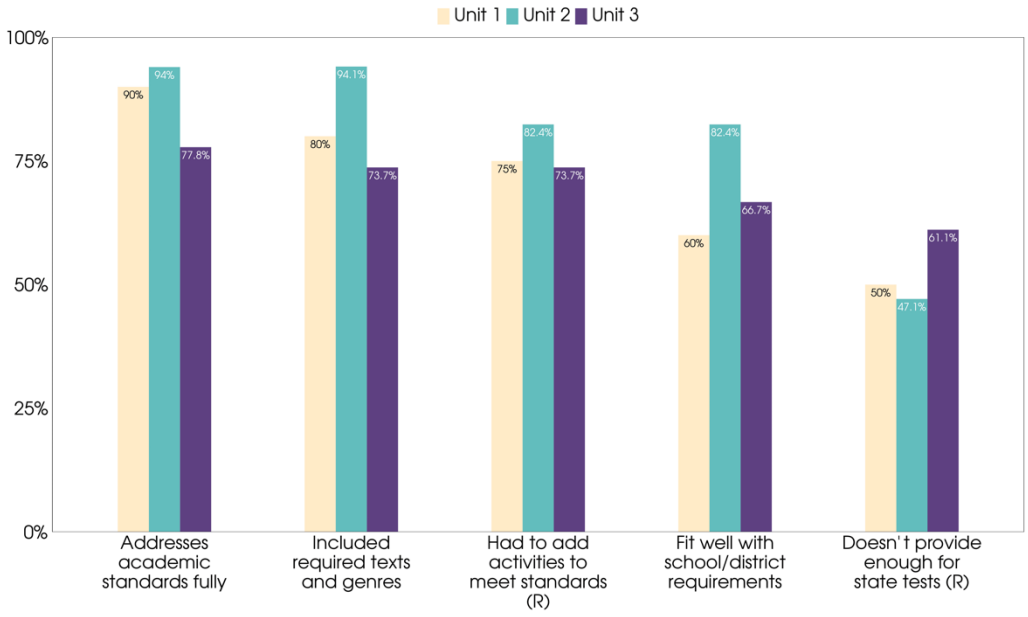

FIGURE 7. PERCENTAGE OF TEACHERS RESPONDING POSITIVELY ABOUT ALIGNMENT OF MATERIALS WITH STATE AND DISTRCIT EXPECTATIONS

Note. (R) indicates a reverse-coded item. *n* = 19 or 20 for Unit 1, depending on item. *n* = 18 for Unit 2. *n* = 18–20 for Unit 3, depending on item.

A high percentage of teachers reported positive responses about the coherence, ease of use, and confidence using the materials across Units 1 and 3, but this decreased for Unit 2. This finding corroborates teachers' reports of difficulty with rigorous texts and the need for supporting different student populations for Unit 2 (Figure 8 through Figure 10).

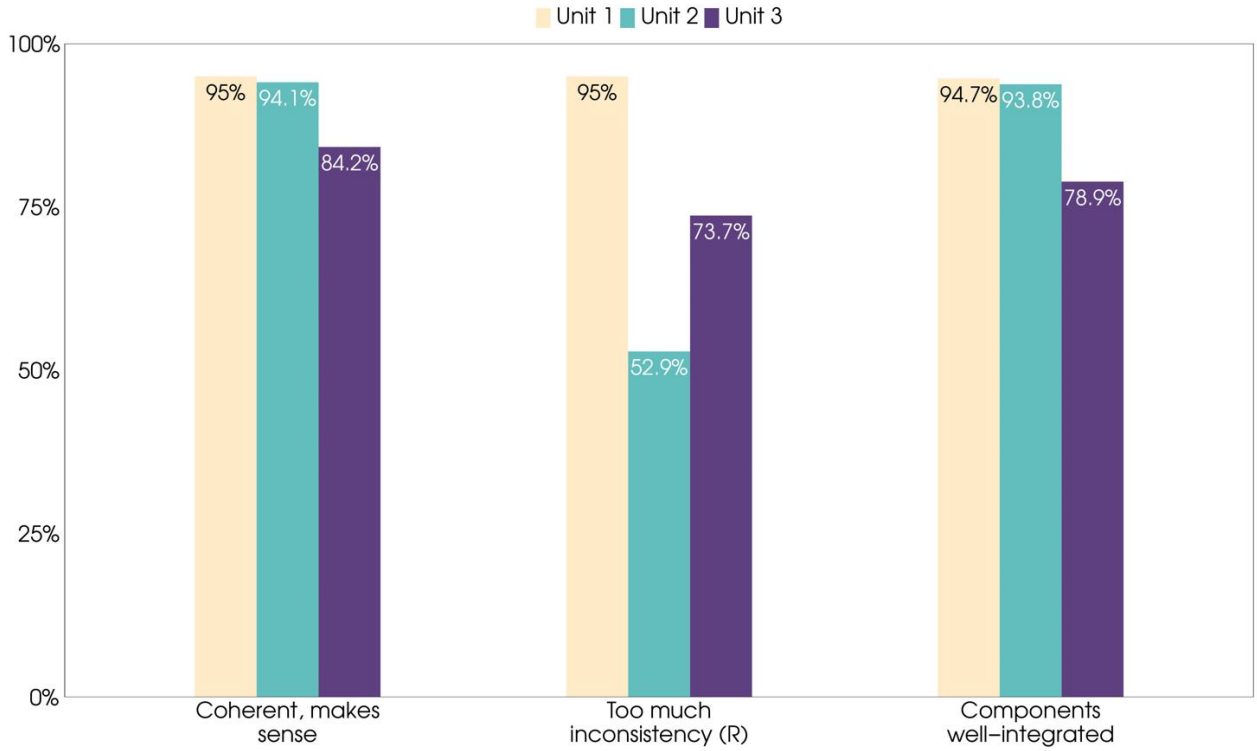

FIGURE 8. PERCENTAGE OF TEACHERS RESPONDING POSITIVELY TO COHERENCE OF MATERIALS

Note. (R) indicates a reverse-coded item. *n* = 19 or 20 for Unit 1, depending on item. *n* = 18–20 for Unit 2, depending on item. *n* = 20 for Unit 3.

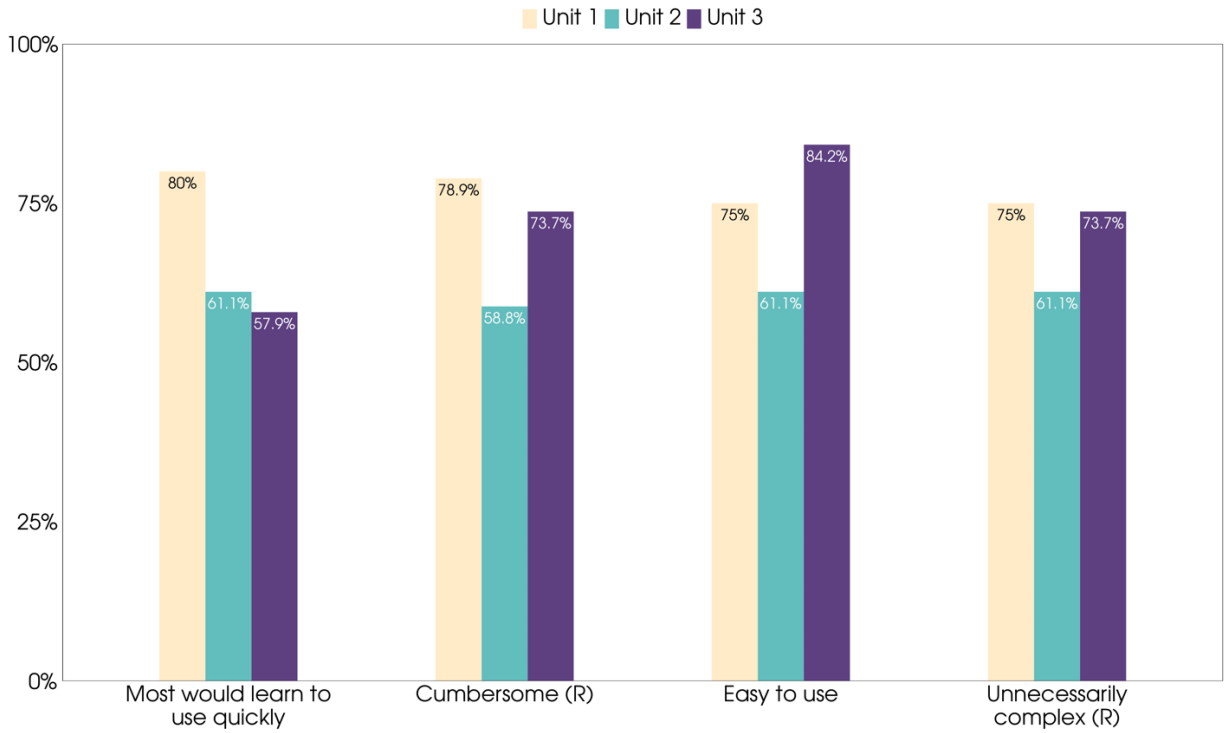

FIGURE 9. PERCENTAGE OF TEACHERS RESPONDING POSITIVELY TO EASE OF USE OF MATERIALS

Note. (R) indicates a reverse-coded item. *n* = 19 or 20 for Unit 1, depending on item. *n* = 18–20 for Unit 2, depending on item. *n* = 20 for Unit 3.

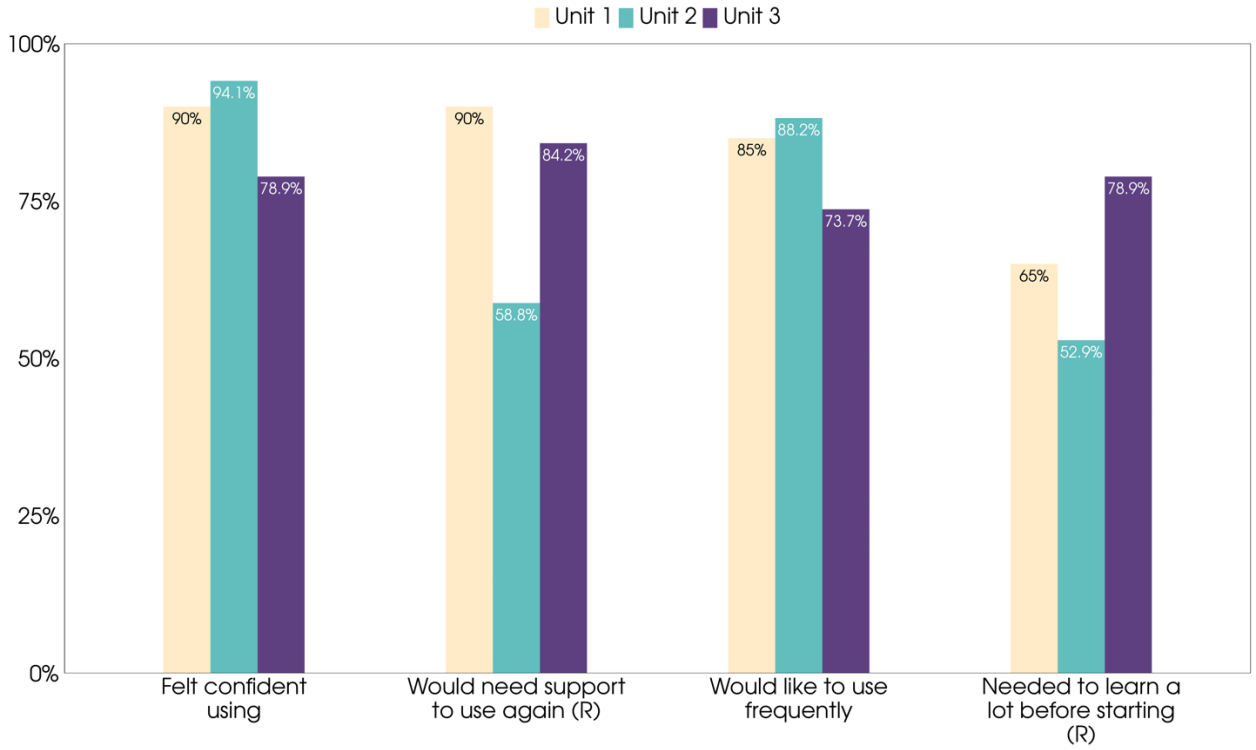

FIGURE 10. PERCENTAGE OF TEACHERS RESPONDING POSITIVELY TO CONFIDENCE USING MATERIALS

Note. (R) indicates a reverse-coded item. *n* = 19 or 20 for Unit 1, depending on item. *n* = 18–20 for Unit 2, depending on item. *n* = 20 for Unit 3.

As the school year came to an end, teachers reported difficulty completing all of the planned activities (see Figure 11). The culminating projects coincided with state testing schedules and end-of-year activities that prevented teachers from finishing Unit 3.

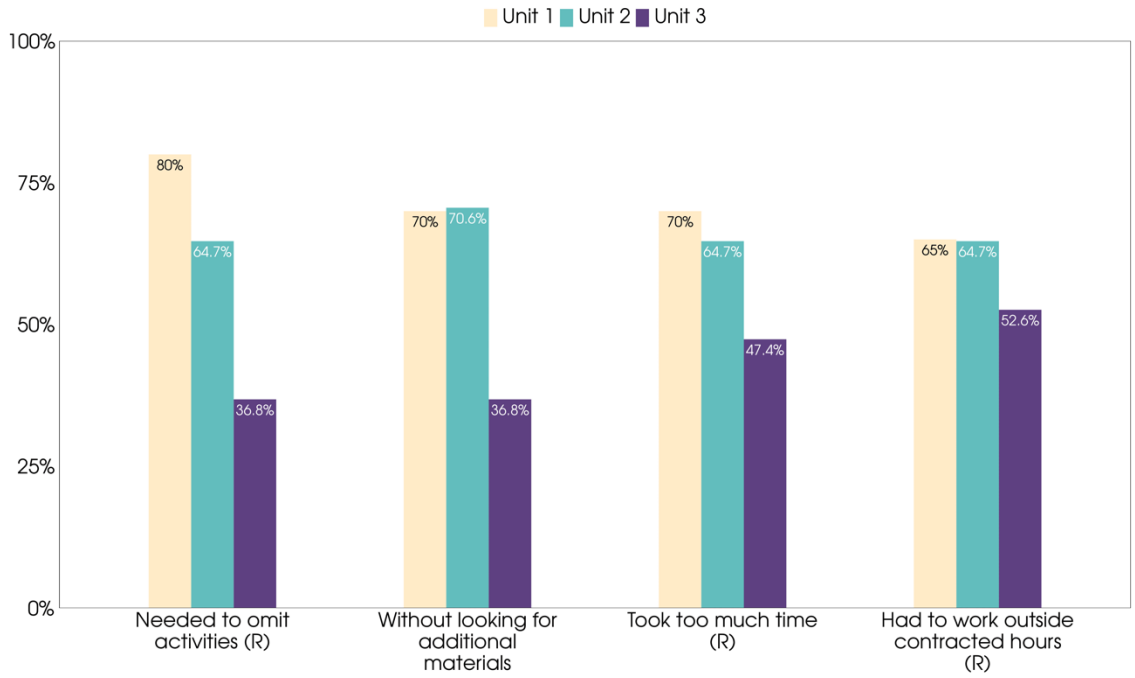

FIGURE 11. PERCENTAGE OF TEACHERS' RESPONDING POSITIVELY TO PACING OF MATERIALS

Note. (R) indicates a reverse-coded item. *n* = 19 or 20 for Unit 1, depending on item. *n* = 18 for Unit 2. *n* = 18–20 for Unit 3, depending on item.

Additional Perceptions of E-ELA Curriculum, Captured Through Qualitative Data

Qualitative data illuminated that most teachers found the materials engaging and appreciated their design and use. Specifically, teachers commented mostly about the multimodal texts and the fact that the materials were physical booklets. In both interviews and open-ended survey responses, teachers noted how visuals, audio recordings, videos, and other multimedia elements helped student understanding. During an interview, a teacher explained how the multimodal texts improved students' comprehension of the lesson.

> [T]he beginning of the Black Death Unit, the way they introduce it. So they look at a picture, they're looking at a painting, thinking about it, and they don't know much about it. Then we watch a movie about it and then we get to the reading. So just having multiple areas of how they're getting that information was really cool. (OR district teacher, Interview, June 2025)

Teachers also valued that the replacement materials were physical workbooks. A TX district teacher explained that the workbooks made it easy to track students' progress and ensure everyone was on the same page (Interview, May 2025). They also mentioned that the physical booklets made grading simpler because they could see students' annotations, which also helped in explaining grades and suggestions for improvement. A teacher from the OR districts shared that the student workbooks allowed students to "see their production, or

they can see what they're doing" (Interview, June 2025). This was common among other teachers who liked that students could actually see their work and understand what they had done and what they needed to do, rather than just clicking through an online module.

Teachers had mixed feelings about how easy the materials were to navigate. Some teachers reported that having texts and activities in the same booklet made it hard to move between them. For instance, some teachers mentioned confusing duplicate page numbers. A CT district teacher shared, "Navigating the workbook can be a challenge for some students. Flipping between text and activities was confusing for some students. It would be helpful if the texts were in a separate workbook" (Survey 2, April 2025). Teachers also said they had to modify the PowerPoint slides. One teacher shared, "I had to make slides that were more concise and easier to see for every single Task" (CT district teacher, Survey 1, March 2025). Other teachers found the materials easy to navigate and liked the organization and flow. They appreciated the spiral structure of the lessons and how activities built on each other. For example, one teacher said,

> [E]ach task that we did in each unit prepared them for the next thing. So, they weren't just random things that they were asked to do. It prepared the student for the next part. So, it was really well organized in that sense. (CT district teacher, Interview, May 2025)

Teachers also valued the consistent spiral design across units, which made the initial preparation useful for subsequent units. Many teachers also commented that the pace of the lessons was appropriate for their students. A teacher in OR said, "The pace was good. It made Mythology accessible for many more students than I have seen in the past" (Survey 2, April 2025).

While most teachers appreciated that the materials challenged their students, a few felt that certain texts were overly difficult and that topics related to the AIDS pandemic were too mature for their classes. For instance, one teacher from the TX district shared,

> I still feel that "Masque of the Red Death" was too advanced of a text to effectively engage the whole class. While some students rose to the challenge, many of them simply relied entirely on the short film version we watched. I understand and agree with the principle behind teaching an advanced text, but I think this particular story is too verbose for students at this reading level. (Survey 2, March 2025)

Overall, teachers liked that the replacement materials were physical booklets with various multimodal texts that helped students understand the content. They were mixed on how easy the materials were to use—some found it hard for students to navigate the organized booklets, while others appreciated the pacing and spiral structure. While most teachers appreciated that the materials challenged their students, a few felt that certain texts were overly difficult and that topics related to the AIDS pandemic were too mature for their classes.

CHANGES IN TEACHERS INSTRUCTIONAL BELIEFS

We asked teachers their level of agreement with several statements regarding instructional practices for ELs, both prior to implementation (just before the first PD session) and post implementation (on the final survey). There were four statements that we consistently asked teachers across the districts.

1. English Learners tend to struggle more with content knowledge than other students.
2. Having students work in groups can be dangerous since they tend to get off task and one student ends up doing all the work.
3. English Learners should focus on understanding language first, and then they can do more rigorous work like analyzing, evaluating, or synthesizing.
4. It is difficult to find materials that support English Learners both in language and content development.

There were also three statements that differed by district on the pre-implementation survey due to edits made by the program development team, and teachers had the opportunity to respond to both versions of the statements on the post-implementation (final) survey. Table 17 includes the statements and the bold text indicates how the statements differed on the pre-implementation survey, by district.

TABLE 17. TEACHER INSTRUCTIONAL BELIEFS STATEMENTS THAT DIFFERED BY DISTRICT

District	Pre-teaching	Simplifying	Modifying
Texas district	Pre-teaching vocabulary **at the beginning of a lesson** is a necessary strategy to use with English Learners.	Many times, it is necessary to simplify texts and materials for English Learners so they can understand **what texts and teachers say**.	Sometimes it is necessary to add or change **language or content** in a curriculum to make sure that English Learners engage with ideas.
Connecticut and Oregon districts	Pre-teaching vocabulary is a necessary strategy to use with English Learners.	Many times, it is necessary to simplify texts and materials for English Learners so they can understand **everything**.	Sometimes it's necessary to add or change **things** in a curriculum to make sure that English Learners engage with content.

Note. Bolded text denotes differences by district.

The shift in teachers' responses to the second and fourth statements shown to both districts showcases the success of the implementation and highlights the educative nature of the materials. By the end of implementation, more teachers disagreed that working in groups can be "dangerous" and fewer teachers reported difficulty finding materials that support ELs, as shown in Figure 12 and Figure 13.

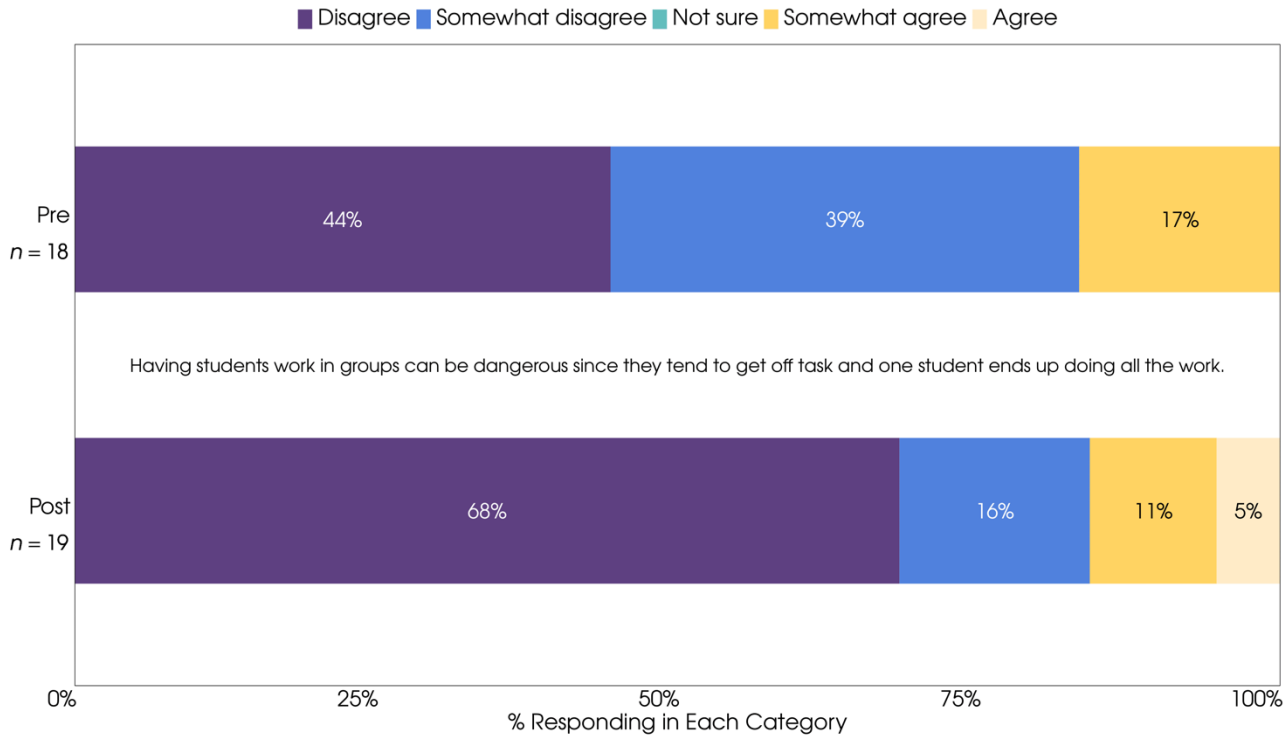

FIGURE 12. TEACHERS' BELIEFS ON STUDENTS WORKING IN GROUPS, PRE AND POST IMPLEMENTATION

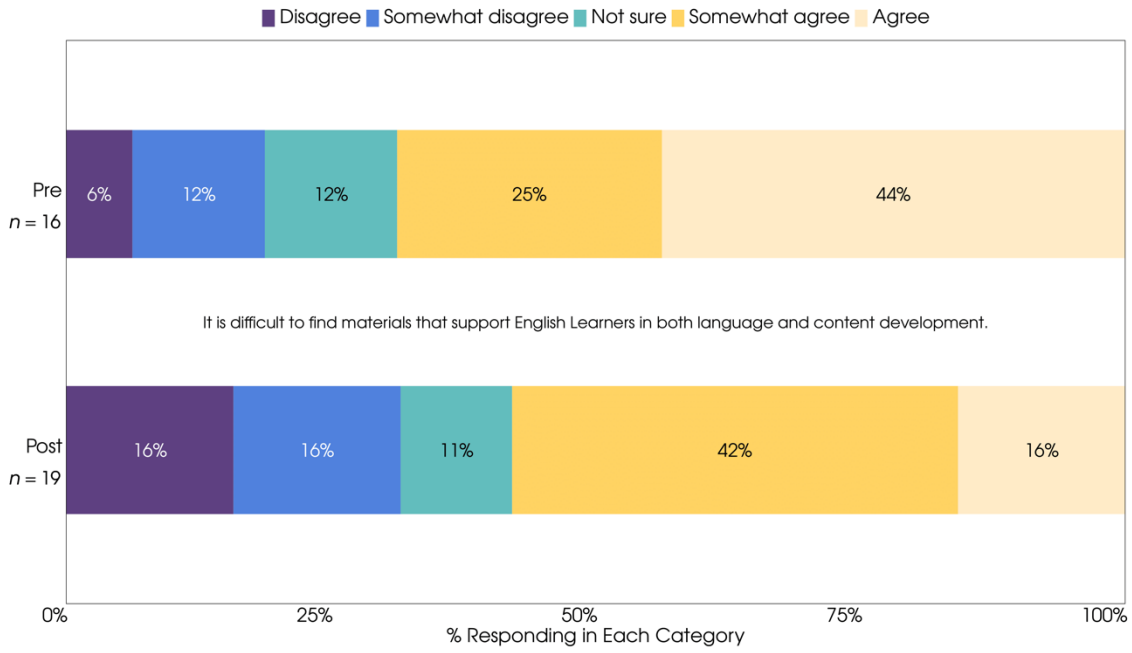

FIGURE 13. TEACHERS' BELIEFS ON FINDING MATERIALS FOR ELS, PRE- AND POST-IMPLEMENTATION

We noted a similar change in teachers' disagreement with the statement that "English learners should focus on understanding language first, and then they can do more rigorous work like analyzing, evaluating, or synthesizing," with the number of teachers *Disagreeing* or *Somewhat disagreeing* increasing from 11 (61%) pre-implementation to 15 (83%) post-implementation (see Figure 14). Teachers explained their responses, and one teacher responded:

> I think that it is the other way around, honestly. They are thinkers and humans first. Engaging them in a topic, supporting them in reading, speaking, listening, and writing, and allowing them to ask questions is far more important that providing language lessons first. (TX district teacher, Survey 3, May 2025).

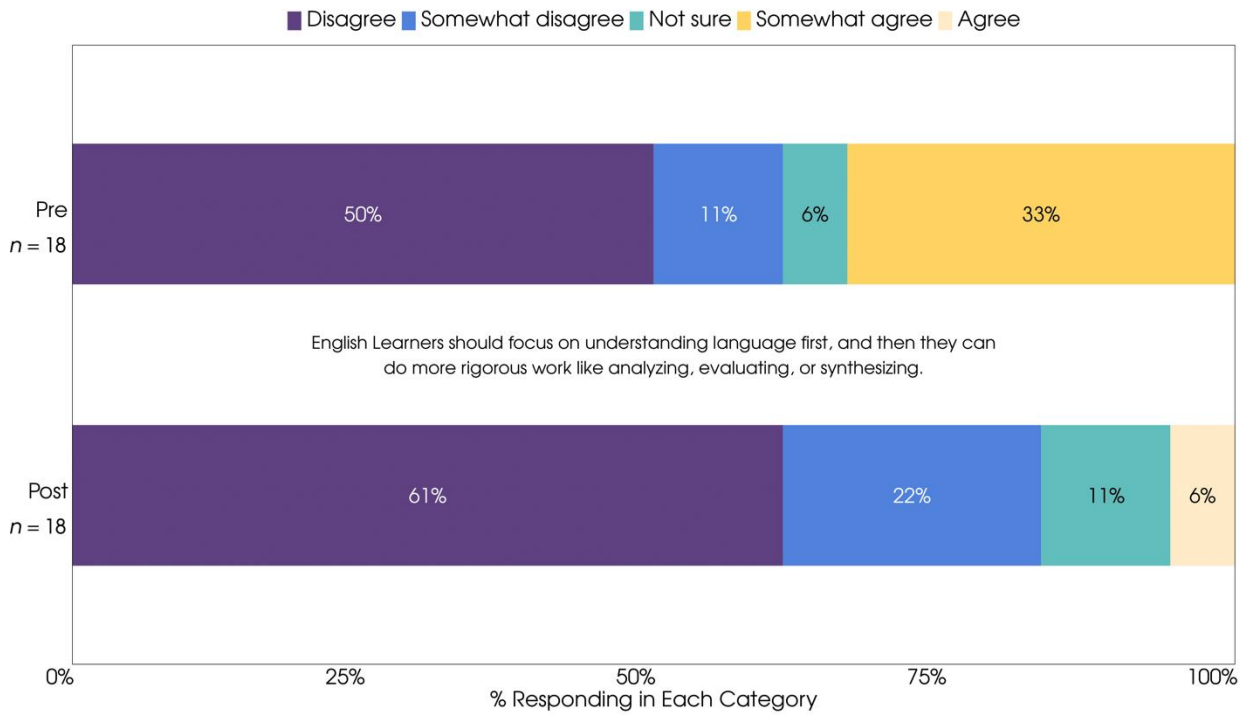

FIGURE 14. TEACHERS' BELIEFS ON LANGUAGE BEFORE RIGOROUS INSTRUCTION FOR ELS, PRE AND POST IMPLEMENTATION

This was paralleled by teachers' responses to the statement "Pre-teaching vocabulary (at the beginning of a lesson) is a necessary strategy to use with English Learners." In the baseline survey administered before program implementation, 15 (79%) teachers *Somewhat agreed* or *Agreed* with each version of the statement that

pre-teaching is a necessary strategy to use with ELs. After implementation, only 9 (47%) teachers reported similar levels of agreement (see Figure 15 and Figure 16). Moreover, the difference was stronger for the version of the statement that included "at the beginning of a lesson," as shown in Figure 17. In open-ended responses, teachers reported higher levels of ELs' abilities to engage with material without extensive language pre-work, with one teacher elaborating "These units have shown it is not needed and can be done while reading/discussing the text."

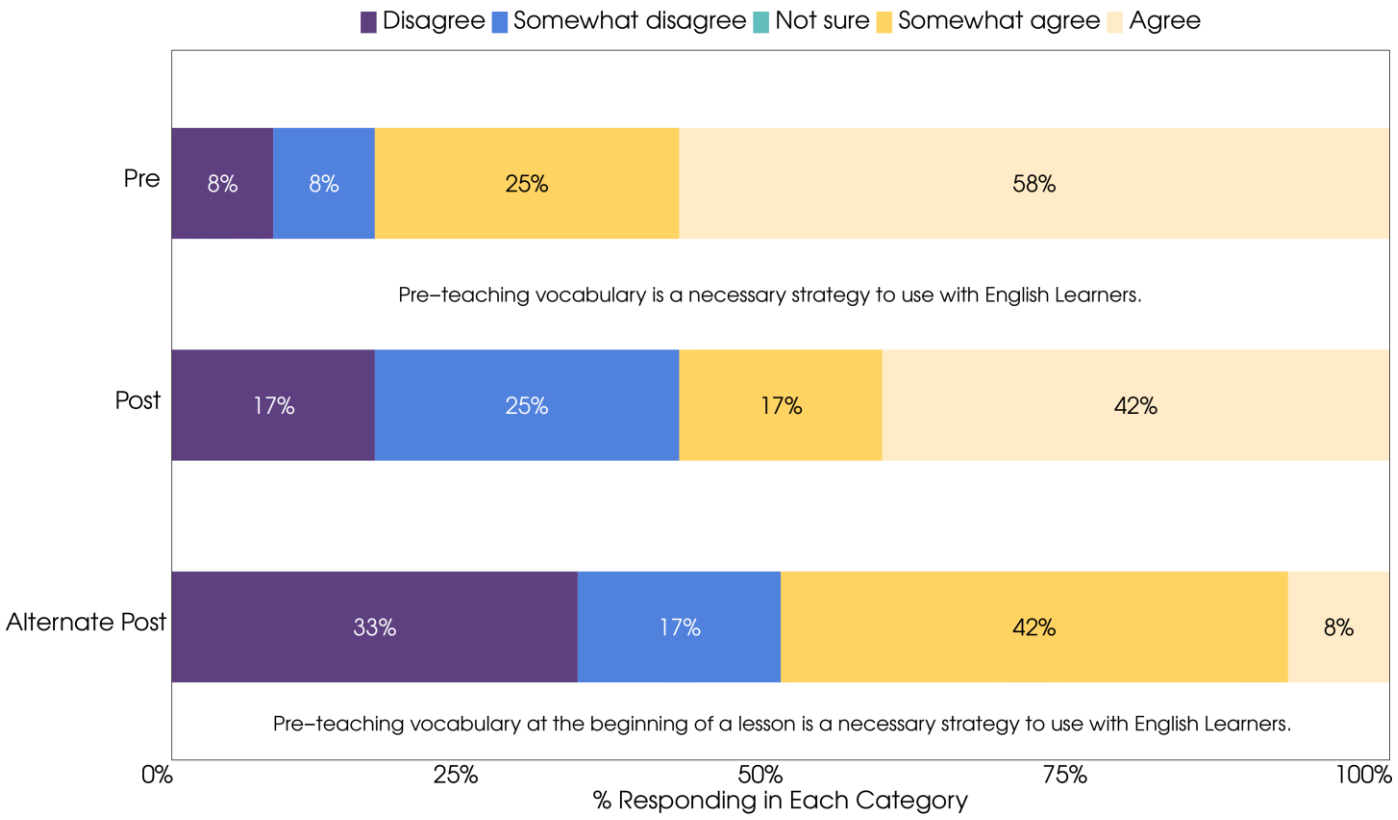

FIGURE 15. OREGON AND CONNECTICUT DISTRICT TEACHERS' BELIEFS ON PRE-TEACHING INSTRUCTIONAL STRATEGY, PRE- AND POST-IMPLEMENTATION

Note. *n* = 12

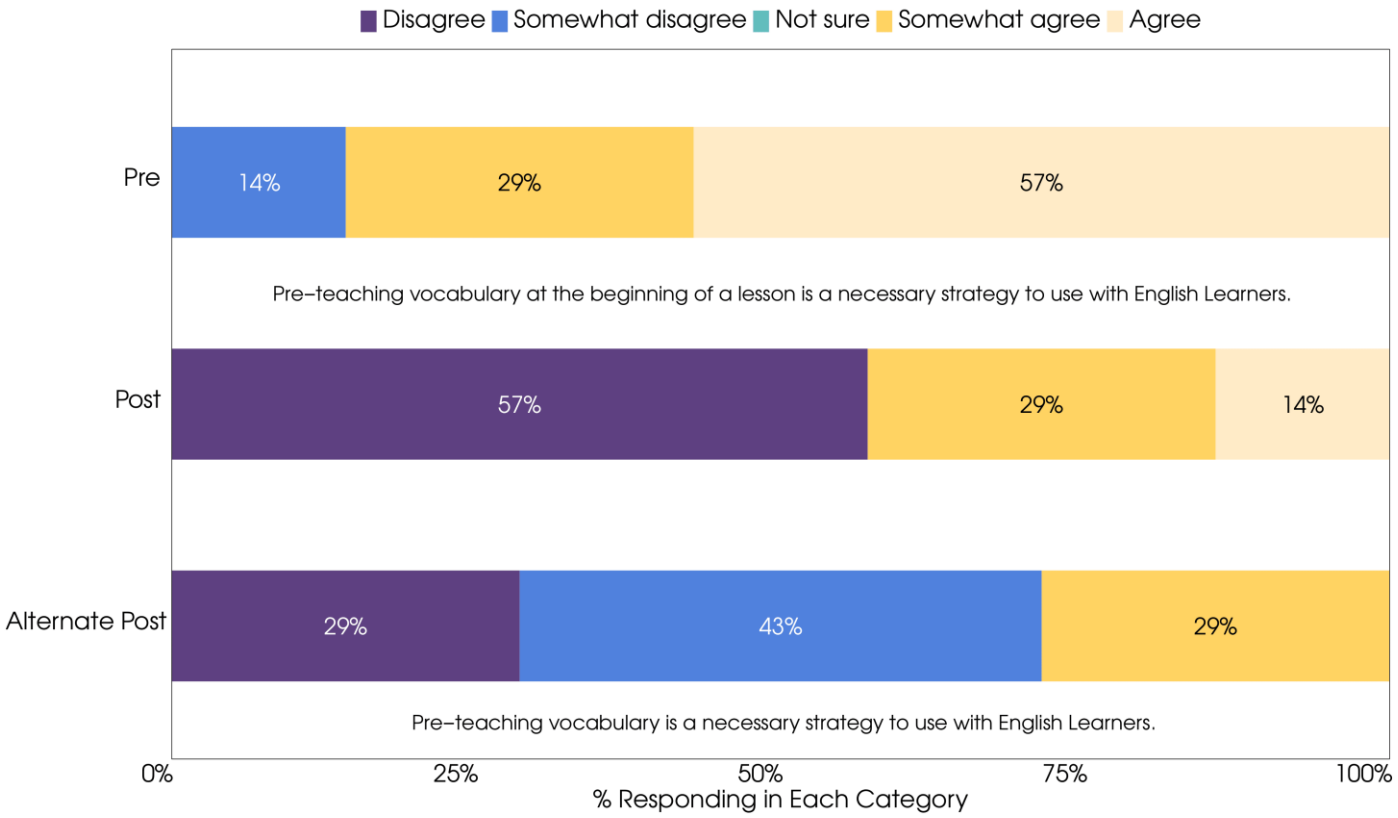

FIGURE 16. TEXAS DISTRICT TEACHERS' BELIEFS ON PRE-TEACHING INSTRUCTIONAL STRATEGY, PRE- AND POST-IMPLEMENTATION

Note. *n* = 7

FIGURE 17. ALL TEACHERS' BELIEFS ON PRE-TEACHING INSTRUCTIONAL STRATEGY, POST-IMPLEMENTATION

Note. *n* = 19

Teachers were also asked pre- and post-implementation if they agreed with the statement, "Sometimes it is necessary to add or change language or content in a curriculum to make sure that English Learners engage with ideas." As shown in Figure 18 and Figure 19, there was less change in teacher responses between pre- and post-surveys, with one teacher remarking on both occasions, "Not just for ELs, but we need to be monitoring student understanding to determine when we need to shift." Another teacher commented:

> I think when a student is entirely checked out and unmotivated to engage with the work because they are totally overwhelmed, it is sometimes appropriate to modify the content and language in the assignment (not the text) to help them participate. (TX district teacher, Survey 3, May 2025)

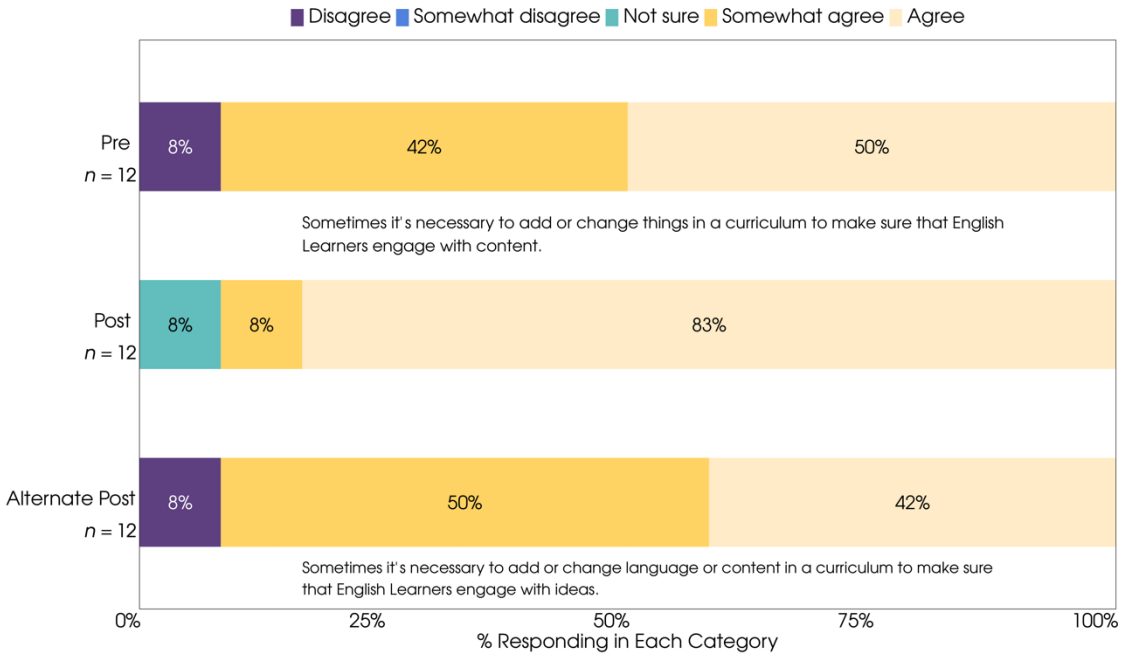

FIGURE 18. OREGON AND CONNECTICUT DISTRICT TEACHERS' BELIEFS ON MODIFYING MATERIALS PRE- AND POST-IMPLEMENTATION

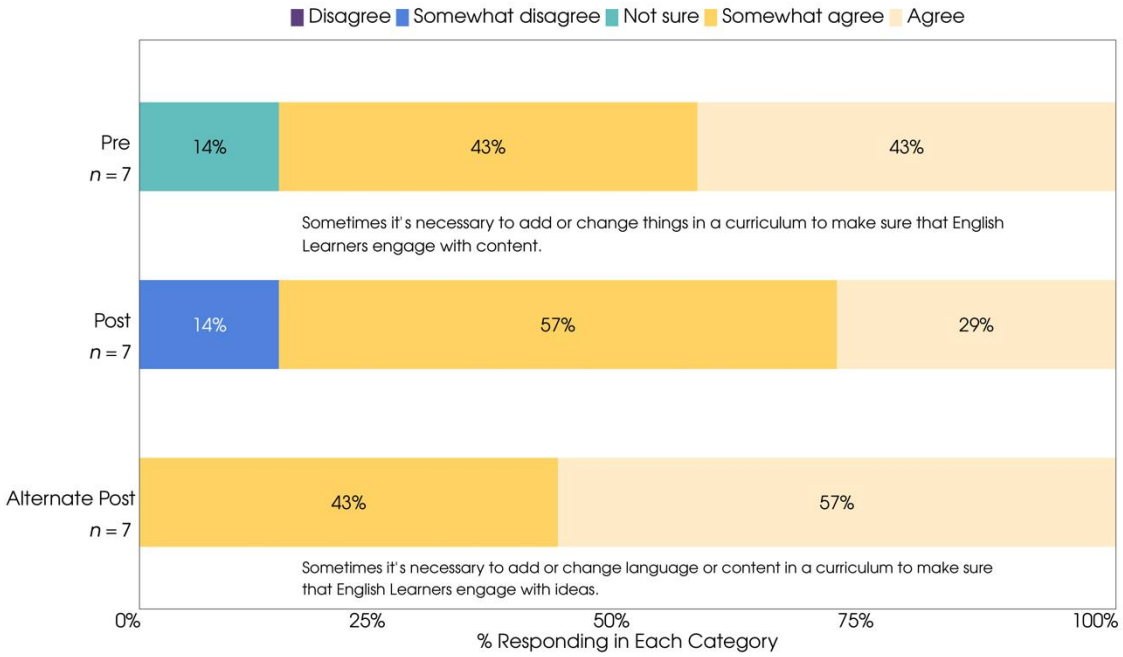

FIGURE 19. TEXAS DISTRICT TEACHERS' BELIEFS ON MODIFYING MATERIALS PRE- AND POST-IMPLEMENTATION

Teachers also responded more positively to the need for simplifying materials for ELs, with 9 teachers responding positively (*Disagreeing* or *Somewhat disagreeing)* pre-implementation and 13 teachers post-implementation (see Figure 20 and Figure 21). After implementation, one teacher commented that "It's not necessary to simplify texts. In time, students will learn more as they collaborate and share in groups. As they are listening to their team members, they will be learning and engaging with the new content material."

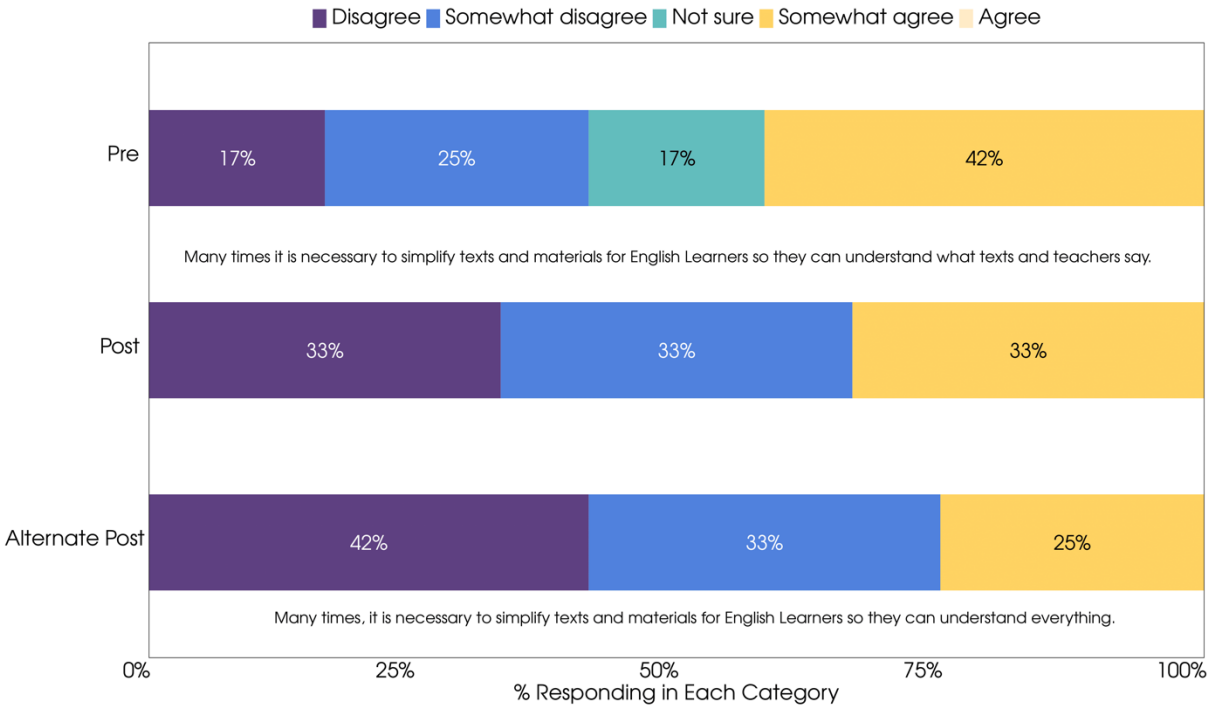

FIGURE 20. OREGON AND CONNECTICUT DISTRICT TEACHERS' BELIEFS ON SIMPLIFYING FOR ELS, PRE- AND POST-IMPLEMENTATION

Note. *n* = 12

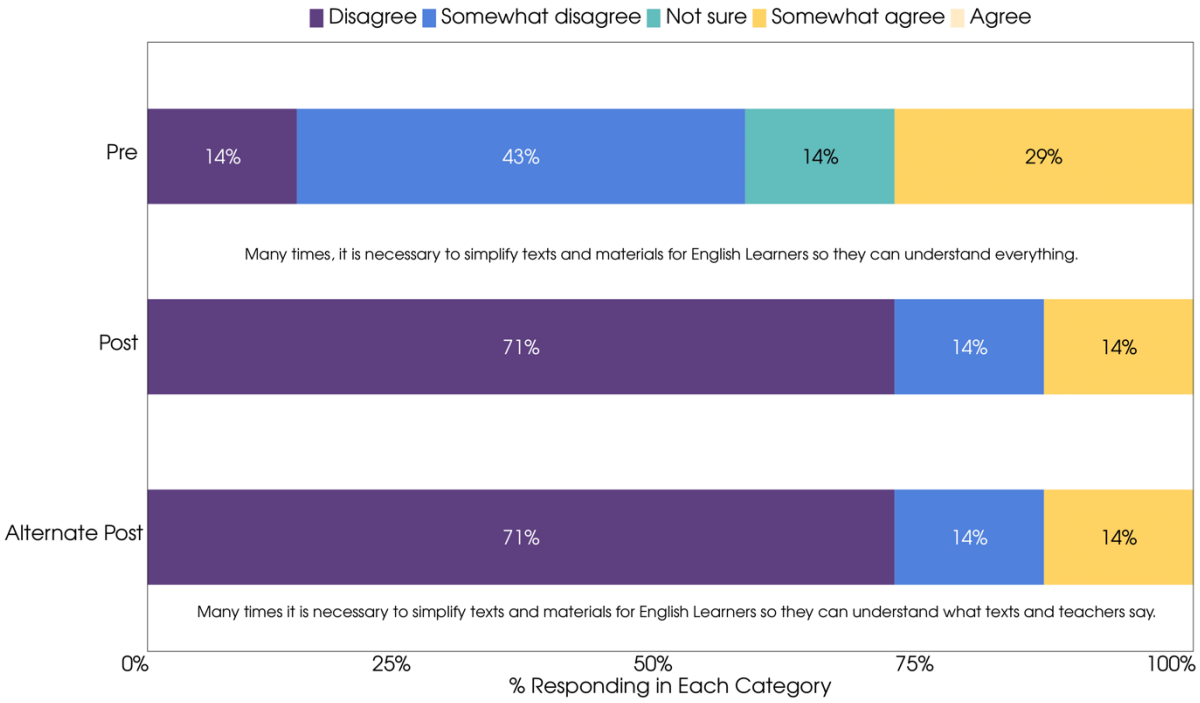

FIGURE 21. TEXAS DISTRICT TEACHERS' BELIEFS ON SIMPLIFYING FOR ELS, PRE- AND POST-IMPLEMENTATION

Note. *n* = 7

These changes are consistent with the goals of the implementation: immersing English Learners in rigorous academic work with peers through critical collaborative (dialogic) interaction, discussion, and guided activities. As one teacher said, "I think we take away opportunities by assuming they wouldn't understand a complex text and simplify it. Majority of my own students were able to understand texts without me simplifying it." We also asked teachers to expand on these topics in other survey and interview questions.

BENEFITS OF IMPLEMENTATION

To better understand the benefits of implementing the replacement materials, we asked teachers in open-ended survey questions and interviews to share any positive outcomes they encountered. In surveys, we inquired about the most successful aspect of each unit, and in interviews, we asked more broadly. Teachers cited intellectual engagement and challenge, evidence of improved academic performance, and ongoing use of strategies as successful aspects of implementation.

Intellectual Engagement and Challenge

Teachers noted that ELs engaged more with the E-ELA curriculum. They found them more rigorous and thought-provoking than their typical eighth-grade ELA curricula. One teacher said, "The kids were engaged, they were talking… They looked forward to it" (CT district teacher, Interview, May 2025). Most teachers appreciated the rigor of the texts provided to students, noting that well-structured, challenging texts helped students build confidence. An TX district teacher shared, "This has been an amazing opportunity for my students. I have seen them grow in this process. They are proud that they are working on high-level texts that challenge them" (Survey 2, March 2025).

Teachers appreciated how the materials encouraged active participation through speaking, reading, and writing. The curriculum's emphasis on group work and discussion promoted equitable participation and peer learning. One teacher shared:

> The most successful aspect of implementing Unit 1 was seeing all of the conversations taking place. As the lessons progressed, students' understanding of the content deepened, and thus their conversations and line of self-reflection naturally became more rigorous. Students were pushing each other through conversation - as they became more versed in the strategies, I acted more and more as a guide in their learning journey instead of the person pushing them. (TX district teacher, Survey 2, March 2025)

Teachers noted that ELs gained confidence and understanding through structured collaboration. Additionally, teachers observed that students showed interest in and could relate to the content of the replacement materials. Teachers reported that E-ELA curriculum fostered engagement and supported ELs in developing confidence, collaboration, and comprehension.

Evidence of Improved Academic Performance

Notably, several teachers mentioned improved student performance data on their district's ELP assessments, linking this to the use of the E-ELA curriculum. They shared this information with us before we received the student achievement data. Many teachers reported higher Lexile growth among students in the classes in which they implemented the E-ELA curriculum. One teacher noted that their school had been on an improvement plan due to previously low scores, but this year, their students showed a "19.5% increase in test score improvement" (CT district teacher, Interview, May 2025). Another teacher said in an interview:

> I have…like 45 eighth graders. Nine of them passed their…state ESL test. And that's quite a lot. Out of the whole district, we had 15 pass and nine of them were from this school…And a lot of other ones were literally one point away in one section…So I think that was a good sign because…eight of them were in that group that did this unit. (OR teacher, Interview, June 2025)

Teachers noted measurable gains in language proficiency and Lexile levels, suggesting the material's potential to support both academic and linguistic growth for ELs.

Continued Use of Strategies

All teachers who participated in the interview planned to adapt and reuse strategies, with one stating, "I'm going to use all of it" (TX district teacher, Interview, June 2025). Teachers, in both the interview and open-ended responses, shared how much they enjoyed learning through the implementation of these educative materials. They also mentioned that they have started using these strategies in other classrooms and plan to continue doing so. One teacher said, "Even though I've been teaching 30 years, I have learned so much. I am implementing some of these strategies with my other classes, as well. It has helped me broaden my teaching methods" (TX district teacher, Survey 1, February 2025). Teachers expressed excitement and a desire to continue using these strategies even after implementation ends. These reflections indicate the educative nature of the materials and PD, as well as the positive impact they had on teachers and students.

CHALLENGES OF IMPLEMENTATION

In addition to the successes teachers experienced, we aimed to learn more about the challenging parts of the implementation. In surveys, we asked about the most challenging element of each unit, and in interviews, we inquired more broadly. Reviewing teacher responses, the two most common issues were time constraints and the modifications needed to support all students.

Time Constraints

In both interviews and open-ended survey questions, teachers shared that they did not have enough time to implement all the materials as intended. Some teachers were unable to start and/or finish the final third unit. Teachers mentioned that testing, school breaks, and other end-of-the-year activities conflicted with the time they had. A teacher in one of the OR districts said, "I missed two weeks of teaching because I was doing the state ESL testing" (Interview, June 2025). A common suggestion was that teachers wished the materials had been implemented at the beginning of the year.

> I believe the material is great. I do believe implementing the replacement materials at the beginning of the year will be extremely beneficial. I believe you will run into less administrative restrictions. In addition, it will allow us to build those skills and transition into STATE testing materials. (TX district teacher, Survey 1, February 2025)

Teachers wished they had more time to implement all the intended materials and believe it would have been more successful if they had introduced the materials and participated in PD at the start of the school year, rather than in the second semester.

Modifications To Support All Students

Another common area of feedback from teachers was that the materials were less supportive of newcomers and students with disabilities. Teachers use the term newcomer to refer to ELs with beginning-level English proficiency who have recently started school in the United States. A few teachers struggled to adapt materials for newcomers, especially in mixed classes with both LTELs and newcomers. A CT district teacher said, "My big takeaway is that this works brilliantly for higher-level students, but we need a newcomer program" (Interview, May 2025). Teachers shared that they had to make adjustments to meet the needs of all students in their classes: "We are having to do a lot of work to adapt and translate for students new or newer to English, and for students with IEPs" (OR teacher, Survey 2, April 2025). A few teachers mentioned the importance of computers in the writing process, for some of their students with disabilities. They said they allowed these students to use laptops to complete some assignments. It is important to note that the program developers specifically created the replacement materials for LTELs, since their lack of reclassification prevents them from taking credit-bearing courses needed for graduation. However, recruitment challenges led the program developers to accept classes with a mix of newcomers, LTELs, and other ELs. Although the program developers had requested classes without newcomers, since the curricular units were designed for LTELs, many newcomers were in classes when implementation began. Teachers reported having to take extra steps to adapt the replacement materials to meet the needs of all the students in their classes.

Chapter 4. Effect on Student Outcomes

OVERVIEW

The primary goal of our study was to understand the effect of the E-ELA curriculum on student achievement. The first three research questions focus on the effect of E-ELA on ELA scores on state assessments, while the final research question examines the association between program participation and student outcomes on the state English language proficiency assessments. These two branches of the study rely on overlapping but distinct datasets and use methods appropriate to each. We report the main results in this chapter, while detailed output tables can be found in Appendix C.

EFFECT ON STATE ELA ASSESSMENT OUTCOMES

The first research question concerns the effect of the E-ELA curriculum on ELA outcomes for LTEL students. We began with the full sample and created the analytic sample through the matching procedure described in Chapter 2. We then estimated a multilevel linear regression model to assess the effect of E-ELA curriculum on student ELA assessment scores, implemented as an interaction between participation status and the English-learner classification. We find a very small, and not statistically significant, effect of the program for LTEL students (Table 18 below). Sensitivity analyses did not reveal significant variation in effect estimates across alternative model specifications.

TABLE 18. EFFECT OF E-ELA PROGRAM ON LTEL STUDENT ELA ACHIEVEMENT

Condition	Means	Standard deviations	No. of students	No. of teachers	Effect size	Std. error	*p* value	Percentile difference
E-ELA effect	-0.472	0.89	257	17	0.015	0.065	.813	1%
Comparison effect	-0.487	1.01	650	55				

The second research question examines whether there was a favorable effect of E-ELA for students based on their length of EL classification or for students receiving special education services. Estimates of the effects of the program on each student group show a statistically significant favorable effect ($p < .05$) for the newcomer EL group and a marginally significant favorable effect ($p < .10$) for the combined group of newcomer and intermediate ELs, or what we refer to as "non-LTEL EL" (Table 19). Effects for the remaining student groups are not statistically significant and are relatively smaller. Pairwise comparisons of group-specific treatment effects indicate no statistically significant differences between any two English-learner subgroups after adjustment for multiple testing. However, the contrast between English proficient and newcomer ELs approaches the conventional levels of statistical significance with an estimate of -0.259 at $p = .50$ (see Table C2 in Appendix C). Program effects did not vary depending on students' classification by race or ethnicity, or by whether students receive special education services.

TABLE 19. EFFECT OF E-ELA ON ELA OUTCOMES BY LENGTH OF EL CLASSIFICATION

Group	E-ELA *n*	Comparison *n*	Effect size	Std. error	*p* value	Percentile difference
English proficient	554	1,625	-0.046	0.056	.415	-2
LTEL	257	650	0.015	0.065	.813	1
Intermediate EL	53	125	0.063	0.109	.561	3
Newcomer EL	56	159	0.213	0.105	.043	8
Non-LTEL EL	109	184	0.145	0.084	.082	6
All EL combined	366	934	0.055	0.060	.364	2

The third research question investigates whether there is a greater effect of E-ELA for students of teachers who fully implemented the program. This involves forming a subset of the sample for high-implementing teachers that completed all units and participated in all professional development and coaching opportunities. We did not find a statistically significant effect for LTELs in the sample of high implementers. The effect is statistically significant and favorable for intermediate ELs and the combined sample of newcomer and intermediate ELs (non-LTEL EL; Table 20). The analysis of high implementers showed larger magnitude effects compared to the full sample for most student groups.

TABLE 20. EFFECT OF E-ELA ON ELA OUTCOMES BY LENGTH OF EL CLASSIFICATION, HIGH IMPLEMENTERS

Group	E-ELA *n*	Comparison *n*	Effect size	Std. error	*p* value	Percentile difference
English proficient	163	489	-0.080	0.071	.261	-3
LTEL	84	252	0.042	0.085	.626	2
Intermediate EL	17	44	0.371	0.163	.023	14
Newcomer EL	26	71	0.131	0.136	.335	5
Non-LTEL EL	43	115	0.240	0.112	.032	9
All EL combined	127	367	0.101	0.075	.177	4

These results taken together suggest that, contrary to the expectations, E-ELA shows greater evidence of promise for its effect on ELA outcomes for non-LTEL English learners.

EFFECT ON ENGLISH LANGUAGE PROFICIENCY

This section addresses the fourth and final research question: does implementation of the E-ELA curriculum improve LTELs' speaking, writing, listening, and reading scores on the state EL proficiency assessment, compared to LTELs in the comparison group?

We found that the strongest effect of E-ELA on ELPA scores in all four domains is obtained at 54 or more calendar days between the program start and the ELP assessment date. This translates to approximately eight or more weeks of instruction. In fact, this is the only dosage level that produces statistically significant estimates; while smaller positive effects that do not reach statistical significance are observed with fewer days, the samples of students with more than this threshold are too small. Thus, we report below the estimates for 54 or more calendar days and note that approximately eight weeks or more of E-ELA instructional time are needed to see a positive effect of the magnitude observed here. The results reported here are for LTEL students only. The effects on other EL students are not statistically significant. The complete output of the iterative estimation procedure is in Appendix C.

TABLE 21. EFFECT OF E-ELA ON ELPA OUTCOMES BY DOMAIN (SCALE SCORE), LTEL STUDENTS, 8+ WEEKS OF INSTRUCTION

Group	Scale score gain	Standard error	Std. dev.	Effect size	*p* value
Writing	22.0	10.6	72.5	0.303	.04
Reading	18.8	12.3	68.9	0.273	.13
Listening	29.7	11.1	67.0	0.443	.01
Speaking	29.5	15.0	82.3	0.358	.05

Note. n = 30 for E-ELA, n = 120 for comparison

Table 21 shows that effects for all domains except Reading are statistically significant. Because state or national percentile tables are not available and the study sample is too small to obtain a reliable estimate of the variances of domain scores, we chose not to calculate effect sizes and instead used an alternative approach to put the results in perspective. We use the score ranges for the middle performance category—Intermediate—and ask the following question: how long would it take an average EL student who has just reached the intermediate level to reach the next performance level (early advanced), given the average annual score gain calculated from the data, and how much acceleration does exposure to E-ELA provide? Table 22 provides an answer to this question.

TABLE 22. ESTIMATED YEARS NEEDED FOR ENTRY-LEVEL INTERMEDIATE LTEL STUDENT TO REACH NEXT LEVEL (EARLY ADVANCED) ON THE ELPA ASSESSMENT

	Condition	Average annual score gain	Years to next level
Writing	E-ELA	51	1.5
	Comparison	29	2.6
Reading	E-ELA	49	1.5
	Comparison	31	2.4
Listening	E-ELA	62	1.3
	Comparison	33	2.4

TABLE 22. ESTIMATED YEARS NEEDED FOR ENTRY-LEVEL INTERMEDIATE LTEL STUDENT TO REACH NEXT LEVEL (EARLY ADVANCED) ON THE ELPA ASSESSMENT

	Condition	Average annual score gain	Years to next level
Speaking	E-ELA	42	1.3
	Comparison	13	4.3

Note. The intermediate scale score range varies from 54 to 79 points depending on the subscale.

Table 22 shows that E-ELA about doubles the rate of language skills acquisition for LTEL students. This result should be interpreted with caution due to the small sample size but provides evidence of promise for the effect on LTELs' English proficiency outcomes.

Chapter 5. Discussion

OVERVIEW

This report shares the findings from a quasi-experiment evaluating the effectiveness of the National R&D Center to Improve Education for Secondary English Learners (the Center) E-ELA curriculum, PD, and coaching across four school districts. The 12-week/three-unit E-ELA curriculum, three-session PD, and four coaching cycles were designed to support teachers in the ways they can effectively engage and challenge LTELs while also benefiting all students. Rigorous texts and dialogue-focused tasks support students in actively engaging with grade-level (or above) ELA content and in meaningful conversations with one another. This project received funding from an IES grant awarded to the Center, which collaborated with Empirical.

Implementation occurred during the spring 2025 semester in eighth-grade ELA classrooms in four diverse school districts: two OR districts, one CT district, and one TX district. Twenty participating teachers were to engage in three PD sessions across four days, complete four coaching cycles, and implement three E-ELA units that replaced their existing ELA curriculum across a 12-week period. We also asked these teachers to complete three online surveys and offered them the opportunity to participate in an interview at the end of the school year. These data helped us to better understand implementation and teachers' perceptions of the successes and challenges in teacher and student participation. The study examined whether E-ELA had an effect on students' ELA and ELP state assessment scores, compared to a matched sample of students whose teachers did not use E-ELA (that is, a comparison group). Furthermore, we investigated whether the effect of E-ELA differed for students based on the length of time they have been designated as an EL, as well as for students of teachers who fully implemented the program. Program facilitators provided attendance data and program materials, and maintained a responsive, collaborative partnership with Empirical.

IMPLEMENTATION RESULTS

Conditions of Implementation and Use of the E-ELA Curriculum

Conditions for implementing the E-ELA curriculum were generally positive. PD session attendance was good, with 90% (n = 18) of implementing teachers attending all three sessions. Teachers were generally satisfied with the PD sessions, stating they felt prepared and excited for implementing the replacement units afterwards. They also appreciated receiving materials in advance of implementation and for the experiential learning opportunity. However, fewer teachers reported that the second PD session *Very much* improved their understanding of the benefit of the E-ELA curriculum for ELs (50%, n = 10) compared to the first (75%, n = 15) and third sessions (74%, n = 14). PD Session 2 introduced Unit 2, which included more complex texts—such as Poe's The Masque of the Red Death—and covered a historically significant and sensitive subject matter: the AIDS epidemic. Teachers reported that Unit 2 was more challenging for their ELs.

The implementation model expected each teacher to participate in four structured coaching cycles, with each cycle including two observations and two debrief sessions. Only 40% of participating teachers (n = 8) attended

two debrief and two observation sessions across all four coaching cycles. Scheduling the intended four sessions per cycle, 16 events total, proved challenging due to weather, illness, testing, etc. Participants frequently cited this scheduling burden as a difficulty in the coaching cycles. Although participants valued the program developers' feedback style and the informed nature of the coaching, they also felt the strain of fitting 16 additional sessions into a 12-week implementation period.

The program developers aimed to provide complete teacher and student instructional materials and to align the distribution of materials, PD, and coaching within a 12-week timeline across all three units. Although some teachers initially reported missing materials, program developers quickly addressed these issues. However, pacing and scheduling challenges made it difficult for teachers to complete all three units within the intended timeframe; only 60% (n = 12) of teachers completed Unit 3. Not being able to finish all the intended curriculum may have influenced what teachers and students gained from the experience.

Teacher Perceptions of the E-ELA Curriculum

Teachers perceived the E-ELA curriculum as more suitable for their students than their typical ELA materials in all reported categories. Across the three units, 75% or more of teachers *Agreed* or *Strongly agreed* that the materials were well aligned to state standards and engaging to students, that the activities were appropriate for all students, and that they had sufficient time to prepare to implement. However, their perceptions varied across units. When asked about the culturally relevance of each unit, 60% (n = 12) *Agreed* or *Strongly agreed* that Unit 1 was culturally relevant compared to 72% (n = 13) for Unit 2 and 90% (n = 17) for Unit 3. Unit 1's focus on Greek mythology may have seemed less culturally relevant than the topics of Unit 2 (pandemics) or Unit 3 (community murals). One teacher from an OR district noted that incorporating myths from students' diverse cultural backgrounds might have increased the unit's relevance. While 75% (n = 15) of teachers *Agreed* or *Strongly agreed* that Unit 1 texts were appropriate, and 79% (n = 15) of teachers reported the same for Unit 3, 66% (n = 12) reported that Unit 2 texts were appropriate. Unit 2's complex texts and subject matter likely contributed to teachers' perceptions that the materials were less appropriate. Fewer teachers reported that Unit 3 was well-paced (73%, n = 14) than Units 1 (90%, n = 18) and 2 (86%, n = 16). As noted, only 60% of teachers completed Unit 3, which likely influenced their perceptions of the unit's pace.

Regarding teachers' perceptions of the usability and feasibility of the E-ELA curriculum, similar trends persist for Units 2 and 3. Compared to Unit 1 and Unit 3, teachers viewed Unit 2 as less coherent, less easy to use, and reported lower confidence in using the materials. These data continue to support the finding that Unit 2 materials and subject matter were challenging for teachers to implement. For Unit 3, teachers reported difficulty completing all activities, which aligns with the fact that nearly half of the teachers were unable to finish this unit due to outside school and district constraints, likely shaping their perceptions of its pacing and feasibility.

A high percentage of teachers reported that the units aligned with their school, district, and state requirements; yet, about half reported that the materials prepared students for state achievement tests.

Changes In Teachers Instructional Beliefs

Teachers' instructional beliefs changed after implementation. The number of teachers with certain beliefs—that working in groups can be "dangerous", that ELs should focus on understanding language before they can do more rigorous work, and that simplifying materials is sometimes necessary for ELs—decreased between pre- and post-implementation. This finding implies that, through implementation, teachers gained new insights into how ELs can engage meaningfully in both collaborative and rigorous academic work. Additionally, following implementation, fewer teachers agreed that pre-teaching vocabulary is a necessary strategy for ELs. This suggests that teachers increasingly recognized that ELs can acquire new vocabulary through contextualized, rigorous learning experiences.

Benefits of Implementation

Through short-answer survey questions and interviews, we asked teachers to share what they considered the most successful aspects of implementation. Despite some teachers' concerns that the Unit 2 texts were too advanced, many teachers reported that students were more engaged and more intellectually challenged by the E-ELA curriculum than their typical curriculum. Teachers noted how students were proud of themselves for doing something that challenged them. This is noteworthy given that ELs often receive simplified or below-grade-level instruction and frequently lack access to rigorous, meaningful academic content (Hakuta, 2011). Teachers also reported that students' performance on their district's ELP assessments improved, and they associated these gains in English proficiency with the use of the E-ELA materials. This is a promising anecdote, especially given that research shows many EL students remain LTELs for years, often because standard curricula and supports fail to help them develop literate academic English (Rhinehart et al., 2024). All teachers we interviewed indicated they would continue using the E-ELA materials and strategies they learned during implementation in future years.

Challenges of Implementation

We were also interested in understanding teachers' implementation challenges, in order to inform program developers about where they can focus improvements for future implementation. Teachers reported struggling to stay on pace due to competing demands, including district testing windows and school breaks. Several teachers suggested moving implementation of the units to earlier in the year to avoid these disruptions. Implementing the curriculum earlier in the year would not only increase the likelihood that teachers could complete all 12 weeks of instruction and fully engage in the accompanying PD sessions and coaching cycles, but also ensure that students experience the entire sequence before taking their state ELA and ELP assessments. In other words, not completing the materials may limit E-ELA's potential impact on students' assessment scores.

Teachers also reported challenges in adapting materials for all students in their classrooms, particularly newcomers and students with disabilities. The materials were specifically designed to support LTELs, a group of students who often demonstrate relatively high oral English proficiency, yet, continue to struggle with the

academic language demands needed to reclassify and exit EL services (Olsen, 2010). However, classrooms that implemented the materials often included students with mixed levels of English proficiency, requiring teachers to adapt the materials to meet the needs of all students. Research shows that it is a common practice for ELs to be grouped in the same classrooms regardless of their English proficiency levels, rather than being placed in differentiated settings aligned to their distinct linguistic needs (Olsen, 2010).

Teachers also needed to adjust the materials for students with disabilities. According to a recent National Clearinghouse for English Language Acquisition (2023) fact sheet, school districts classify approximately 16% of EL students nationwide with a disability, a proportion slightly higher than that for the general student population. Given that teachers implementing these materials are likely to have students with disabilities in their classrooms, the curriculum and accompanying supports should offer differentiation for both language-development needs and disability-related learning needs to ensure equitable access to grade-level content.

EFFECT ON STUDENT OUTCOMES

The study aimed to answer four research questions evaluating the effectiveness of the E-ELA curriculum on student outcomes in ELA and ELP, including variation by student characteristics and teacher implementation, with the goal of establishing evidence of promise. While we did not find evidence of a statistically significant effect on ELA outcomes for LTELs, there was evidence of favorable effects for newcomer ELs and non-LTEL ELs. The effect for newcomer ELs is equivalent to an eight percentile point difference (p <.05). When we combined intermediate ELs with the newcomer ELs, there was moderate evidence of an effect equivalent to a six percentile point difference (p <.10).

We observed more favorable effects for students of high-implementing teachers, those who completed all three units and participated in all PD and coaching opportunities. The testing windows in each district constrained the analysis of the effect on ELP outcomes, limiting the sample of students that implemented the full program before the date of their ELP assessments. However, we observed statistically significant effects on the Writing, Listening, and Speaking scales for a subset of students whose teachers implemented at least eight weeks of the program before their assessments. These effects are equivalent to nearly double the annual average test score gains of comparison students.

We designed the study to meet WWC standards with reservations (ESSA Tier 2). However, as described, our analysis of the primary research question—examining the effects for LTELs—did not yield a positive effect; therefore, the study does not meet the ESSA Tier 2 guidelines. In our additional exploratory analysis, which utilized a solid correlational design with statistical controls for selection bias, we found positive effects for various subgroups of ELs. Accordingly, the evidence from this study supports classification at ESSA Tier 3 (IES, n.d.).

CONSIDERATIONS

We highlight several considerations to take into account when interpreting findings from this study. First, as stated, the Center's program developers initially designed E-ELA for implementation primarily with LTELs, a

population that often has limited access to grade-level content required for graduation. The original study plan focused on conducting the work in a large urban district serving a high proportion of LTELs. However, the Center staff encountered substantial recruitment challenges. Many of the targeted districts were already piloting new ELA curricula and were therefore reluctant to pause implementation for the 12 weeks required for E-ELA. As a result, recruitment shifted to districts that differed from initial expectations in both demographic composition and geographic context. In many participating schools, classrooms included newcomers, LTELs, and other Els together, despite the developers' request to focus on LTELs. Consequently, teachers made minor pedagogical adaptations to meet the wide range of English language proficiency levels in their classrooms.

Recruitment challenges also delayed implementation until the spring 2025 semester. This timing introduced additional constraints related to pacing, as teachers navigated competing demands of district and state testing, and limited the extent to which some teachers were able to complete the full program. Specifically, only 60% (n = 12) of teachers completed all three E-ELA units, reducing students' exposure to the complete instructional sequence. In addition, because the CT and TX districts administered their state ELP assessments early in the implementation period, students in these districts completed testing before sufficient exposure to the intervention for us to reasonably detect potential impacts. As a result, only students in the OR districts contributed usable ELP outcome data, reducing the sample size and limiting the strength and generalizability of conclusions about proficiency gains.

Changes in federal education funding processes and grant administration within the U.S. Department of Education coincided with the implementation period of this project. During this time, shifts in discretionary funding priorities and adjustments to grant timelines contributed to variability in the broader education research landscape. These ecological conditions had implications for planning, coordination, and expectations related to education research and development efforts, including government funded work focused on supporting ELs. While this project continued to move forward, the broader context is relevant for interpreting implementation decisions and sustained federal support.

Despite these limitations, it is important to note that teachers reported largely positive experiences with E-ELA. Teachers enjoyed using these materials, and indicated their intention to continue using the instructional strategies and tools introduced through the project. They frequently reported how grateful they were to have engaged in this work and found the E-ELA materials to be more suitable and engaging for their students than the typical ELA curriculum. Many commonly-used ELA curricula provide limited embedded support for ELs, making it challenging for some students to fully access grade-level content (Moreno, 2021). In contrast, high-quality, EL-focused curricula—that combine language support with rigorous academic content, such as E-ELA—can help meet needs that standard materials may not fully address.

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Appendix A. Teacher Interview Protocol

PARTICIPANT BACKGROUND INFORMATION

Date/time of interview				
Interviewer	[name]	[name]		
Notetaker	[name]	[name]		
District	TX district	CT district	OR District 2	OR District 1
Position	ELA	ELD	Other	
Co-teacher	Yes	No		
Implementing in all classes	Yes	No (Usual ELA = X; E-ELA = X)		
Previous QTEL experience	Yes	No		

WELCOME AND CONSENT

Thank you for making time for today's interview. My name is [name of interviewer] and this is [name of notetaker]. Our research company, Empirical Education, serves as the external evaluator for the WestEd Educative English Language Arts study, and we are working with your district and WestEd to evaluate the impact and implementation of the professional development sessions and replacement ELA curriculum. We hope to better understand how you implemented the replacement curriculum in your classroom and how you think the curriculum impacted your students and your classroom.

With your permission, this interview will be recorded and transcribed so that we can review and analyze your responses accurately. The recordings will be kept in a secure file that only researchers and transcribers have access to. Your responses will be confidential. The WestEd staff and your school and district administrators will not have access to this recording or transcription and will not be able to identify you or your answers.

Are you willing to give me permission to record this interview in both video and audio?

(IF YES) Okay thank you very much. We will start the recording now. ***[Notetaker, start recording.]*** Can you just confirm, while the recording is on, that you have agreed to being recorded?

(IF NO) That's fine, it would be helpful for us to have an audio recording to refer to when analyzing data to ensure your words are captured accurately - would it be okay if we turned off our video cameras, and recorded the audio of this interview?

If at any point you do not understand a question or need me to repeat the question, please do not hesitate to ask. Would you like to ask me any questions before we begin?

INTERVIEW PROTOCOL

PD

1. To start, could you share any previous experiences (prior to your work with WestEd) you've had with professional development that was specifically designed to support English Language Learners?
    a. In what ways did the PD you received from WestEd differ from any prior PD experiences (length of PD, material taught, style of instruction, etc.)?
2. Thinking back to the four days of PD that WestEd provided, in what ways did you feel prepared to implement the curriculum in your classroom?
    a. To what extent did you feel prepared to implement the lessons?
    b. To what extent did you feel prepared to facilitate discussions with students?
    c. Were there aspects of the WestEd E-ELA replacement materials that you felt less prepared to implement? If so, what would have made you feel more prepared? (lesson, unit, aspects of engaging students in discussion, etc.)
3. Is there any additional professional development that you would have liked to receive from WestEd throughout the year (e.g., on specific content or lessons)?
    a. ***Optional prompt:*** Was there anything offered during the PD sessions that you would have liked to see more of or less of?
4. In what ways did the scheduling of PD days affect your preparedness to implement the WestEd E-ELA replacement materials in your classroom?
    a. ***For TX teachers:*** Would you have preferred if the PD was more spread out during implementation?
    b. ***For OR/CT:*** Was it helpful to have the PD days spread out during implementation?

Coaching Sessions

5. In what ways were the WestEd coaching sessions similar or different from other ELA or ELD-based coaching sessions you have participated in?
6. How have the coaching sessions contributed to your implementation of the WestEd E-ELA replacement materials?
    a. Were there any particular strategies or feedback that you found especially valuable?

Implementation

[The next questions are only for teachers who are not implementing in all classes.]

7. On the Baseline Survey, you indicated you are implementing the WestEd E-ELA replacement materials in X out of X eighth-grade ELA classes you teach. Can you please share more information about the

classes where you teach your usual eighth-grade ELA curriculum including the grade levels, student demographics, and why you chose to stick with your usual ELA curriculum?

   a. How do these classes differ from the ones that received the WestEd E-ELA replacement materials?

8. In what ways are the WestEd replacement materials similar to the ELA curricula you typically teach?
   a. In what ways are they different?
9. What would you say went well in your implementation of the WestEd E-ELA replacement materials?
10. What difficulties did you face in implementing the WestEd E-ELA replacement materials?
   a. What, if any, recommendations do you have to address these difficulties?
11. Did you notice if certain students seemed to benefit more than others from the replacement materials?

[Optional prompts]

   a. How effectively did the curriculum address the needs of students with accommodations?
   b. Were there any differences in how well the curriculum supported students based on their level of English language acquisition? If so, can you share some examples?

12. In what ways, if any, did the replacement materials encourage collaboration and conversation among students?
   a. What impact, if any, did you notice on their learning and engagement?
   b. Can you share any examples of what students said or how they reacted to the lessons?
13. Overall, do you feel that implementing the WestEd E-ELA replacement material was worth the time and effort?

Educative

14. In what ways has this project influenced your teaching?
   a. Are there any elements of the WestEd E-ELA replacement materials you plan to incorporate into your future lessons?
15. How has your perception of what English Learners are capable of changed as a result of the implementation process?

Closing

16. Is there anything else you think our team should know that I didn't ask you about?

CLOSING

Thank you for making time for today's interview. We really appreciate you taking the time to share your experiences and reflections with us today. Your input is very helpful for our evaluation of the program. Thank you again!

Appendix B. Teacher Survey Results

TABLE B1. TEACHER REPORTS OF SUITABILITY OF USUAL DISTRICT ELA CURRICULUM

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Texts are appropriate	0 (0%)	6 (30%)	3 (15%)	8 (40%)	3 (15%)
Activities/assignments are appropriate	1 (5%)	4 (20%)	3 (15%)	10 (50%)	2 (10%)
Meeting the needs of ELs	3 (15%)	7 (35%)	1 (5%)	5 (25%)	4 (20%)
Sufficient time to plan/prepare	1 (5%)	7 (35%)	1 (5%)	8 (40%)	3 (15%)
Well-paced	0 (0%)	8 (40%)	3 (15%)	5 (25%)	4 (20%)
Engaging to students	2 (10%)	5 (25%)	4 (20%)	6 (30%)	3 (15%)
Culturally relevant	2 (10%)	7 (35%)	2 (10%)	7 (35%)	2 (10%)
Aligned to state standards	0 (0%)	0 (0%)	3 (15%)	12 (60%)	5 (25%)

Note. *n* = 20 for each statement

TABLE B2. TEACHER REPORTS OF SUITABILITY OF E-ELA UNIT 1

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Texts are appropriate	1 (5%)	2 (10%)	2 (10%)	10 (50%)	5 (25%)
Activities/assignments are appropriate	1 (5%)	2 (10%)	2 (10%)	6 (30%)	9 (45%)
Meeting the needs of ELs	0 (0%)	3 (15%)	3 (15%)	7 (35%)	7 (35%)
Sufficient time to plan/prepare	0 (0%)	2 (10%)	2 (10%)	10 (50%)	6 (30%)
Well-paced	0 (0%)	1 (5%)	1 (5%)	11 (55%)	7 (35%)
Engaging to students	0 (0%)	2 (10%)	1 (5%)	11 (55%)	6 (30%)
Culturally relevant	0 (0%)	2 (10%)	6 (30%)	6 (30%)	6 (30%)
Aligned to state standards	0 (0%)	1 (5%)	1 (5%)	10 (50%)	8 (40%)

Note. *n* = 20 for each statement

TABLE B3. TEACHER REPORTS OF SUITABILITY OF E-ELA UNIT 2

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Texts are appropriate	0 (0%)	3 (17.6%)	3 (17.6%)	7 (41.2%)	4 (23.5%)
Activities/assignments are appropriate	0 (0%)	1 (5.9%)	2 (11.8%)	8 (47.1%)	6 (35.3%)
Meeting the needs of ELs	0 (0%)	2 (11.8%)	3 (17.6%)	7 (41.2%)	5 (29.4%)
Sufficient time to plan/prepare	0 (0%)	1 (5.9%)	2 (11.8%)	8 (47.1%)	6 (35.3%)
Well-paced	0 (0%)	1 (5.9%)	1 (5.9%)	9 (52.9%)	6 (35.3%)
Engaging to students	0 (0%)	2 (11.8%)	1 (5.9%)	8 (47.1%)	6 (35.3%)
Culturally relevant	0 (0%)	2 (11.8%)	3 (17.6%)	7 (41.2%)	5 (29.4%)
Aligned to state standards	0 (0%)	0 (0%)	1 (5.9%)	8 (47.1%)	8 (47.1%)

Note. *n* = 17 for each statement

TABLE B4. TEACHER REPORTS OF SUITABILITY OF E-ELA UNIT 3

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Texts are appropriate	0 (0%)	2 (10.5%)	2 (10.5%)	10 (52.6%)	5 (26.3%)
Activities/assignments are appropriate	0 (0%)	1 (5.3%)	2 (10.5%)	12 (63.2%)	4 (21.1%)
Meeting the needs of ELs	0 (0%)	0 (0%)	5 (26.3%)	9 (47.4%)	5 (26.3%)
Sufficient time to plan/prepare	0 (0%)	1 (5.3%)	3 (15.8%)	9 (47.4%)	6 (31.6%)
Well-paced	0 (0%)	1 (5.3%)	4 (21.1%)	7 (36.8%)	7 (36.8%)
Engaging to students	0 (0%)	1 (5.3%)	2 (10.5%)	7 (36.8%)	9 (47.4%)
Culturally relevant	0 (0%)	0 (0%)	2 (10.5%)	6 (31.6%)	11 (57.9%)

Aligned to state standards	0 (0%)	0 (0%)	2 (10.5%)	11 (57.9%)	6 (31.6%)

Note. *n* = 19–20 depending on the statement

TABLE B5. TEACHER REPORTS OF USABILITY OF E-ELA UNIT 1

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Would like to use frequently	0 (0%)	0 (0%)	3 (15%)	6 (30%)	11 (55%)
Unnecessarily complex (R)	1 (5%)	2 (10%)	2 (10%)	7 (35%)	8 (40%)
Easy to use	1 (5%)	2 (10%)	2 (10%)	10 (50%)	5 (25%)
Would need support to use again (R)	0 (0%)	1 (5%)	1 (5%)	11 (55%)	7 (35%)
Components are well-integrated	0 (0%)	0 (0%)	1 (5.3%)	10 (52.6%)	8 (42.1%)
Inconsistent (R)	0 (0%)	0 (0%)	1 (5%)	10 (50%)	9 (45%)
Most would learn to use quickly	0 (0%)	1 (5%)	3 (15%)	9 (45%)	7 (35%)
Cumbersome (R)	0 (0%)	1 (5.3%)	3 (15.8%)	8 (42.1%)	7 (36.8%)
Felt confident using	0 (0%)	0 (0%)	2 (10%)	12 (60%)	6 (30%)
Needed to learn a lot to get started (R)	1 (5%)	3 (15%)	3 (15%)	10 (50%)	3 (15%)
Coherent, makes sense	0 (0%)	0 (0%)	1 (5%)	6 (30%)	13 (65%)

Note. *n* = 20 for each statement. (R) indicates reverse-coded statements.

TABLE B6. TEACHER REPORTS OF USABILITY OF E-ELA UNIT 2

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Would like to use frequently	0 (0%)	1 (5.9%)	1 (5.9%)	8 (47.1%)	7 (41.2%)
Unnecessarily complex (R)	0 (0%)	3 (17.6%)	3 (17.6%)	5 (29.4%)	6 (35.3%)
Easy to use	0 (0%)	2 (12.5%)	3 (18.8%)	5 (31.3%)	6 (37.5%)

TABLE B6. TEACHER REPORTS OF USABILITY OF E-ELA UNIT 2

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Would need support to use again (R)	2 (11.8%)	4 (23.5%)	1 (5.9%)	4 (23.5%)	6 (35.3%)
Components are well-integrated	0 (0%)	1 (6.3%)	0 (0%)	9 (56.3%)	6 (37.5%)
Inconsistent (R)	2 (11.8%)	5 (29.4%)	1 (5.9%)	2 (11.8%)	7 (41.2%)
Most would learn to use quickly	0 (0%)	3 (17.6%)	3 (17.6%)	6 (35.3%)	5 (29.4%)
Cumbersome (R)	0 (0%)	5 (29.4%)	0 (0%)	5 (29.4%)	7 (41.2%)
Felt confident using	0 (0%)	1 (5.9%)	0 (0%)	9 (52.9%)	7 (41.2%)
Needed to learn a lot to get started (R)	0 (0%)	4 (23.5%)	4 (23.5%)	5 (29.4%)	4 (23.5%)
Coherent, makes sense	0 (0%)	1 (5.9%)	0 (0%)	8 (47.1%)	8 (47.1%)

Note. *n* = 17 for each statement. (R) indicates reverse-coded statements.

TABLE B7. TEACHER REPORTS OF USABILITY OF E-ELA UNIT 3

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Would like to use frequently	0 (0%)	0 (0%)	5 (26.3%)	5 (26.3%)	9 (47.4%)
Unnecessarily complex (R)	0 (0%)	1 (5.3%)	4 (21.1%)	9 (47.4%)	5 (26.3%)
Easy to use	0 (0%)	0 (0%)	3 (15.8%)	10 (52.6%)	6 (31.6%)
Would need support to use again (R)	0 (0%)	0 (0%)	3 (15.8%)	9 (47.4%)	7 (36.8%)
Components are well-integrated	0 (0%)	0 (0%)	4 (21.1%)	7 (36.8%)	8 (42.1%)
Inconsistent (R)	0 (0%)	1 (5.3%)	4 (21.1%)	4 (21.1%)	10 (52.6%)
Most would learn to use quickly	0 (0%)	0 (0%)	8 (42.1%)	5 (26.3%)	6 (31.6%)
Cumbersome (R)	0 (0%)	2 (10.5%)	3 (15.8%)	8 (42.1%)	6 (31.6%)

TABLE B7. TEACHER REPORTS OF USABILITY OF E-ELA UNIT 3

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Felt confident using	0 (0%)	0 (0%)	4 (21.1%)	8 (42.1%)	7 (36.8%)
Needed to learn a lot to get started (R)	0 (0%)	1 (5.3%)	3 (15.8%)	10 (52.6%)	5 (26.3%)
Coherent, makes sense	1 (5.3%)	0 (0%)	2 (10.5%)	7 (36.8%)	9 (47.4%)

Note. *n* = 19 for each statement. (R) indicates reverse-coded statements.

TABLE B8. TEACHER REPORTS OF FEASIBILITY OF E-ELA UNIT 1

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Addresses academic standards fully	0 (0%)	0 (0%)	2 (10%)	12 (60%)	6 (30%)
Took too much time (R)	2 (10%)	3 (15%)	1 (5%)	10 (50%)	4 (20%)
Included required texts/genres	0 (0%)	0 (0%)	4 (20%)	11 (55%)	5 (25%)
Had to add activities to meet standards (R)	0 (0%)	3 (15%)	2 (10%)	10 (50%)	5 (25%)
Without looking for additional materials	2 (10%)	3 (15%)	1 (5%)	8 (40%)	6 (30%)
Doesn't provide enough for state tests (R)	0 (0%)	1 (5%)	9 (45%)	8 (40%)	2 (10%)
Fit well with state/district requirements	0 (0%)	1 (5%)	7 (35%)	9 (45%)	3 (15%)
Needed to omit activities (R)	2 (10%)	1 (5%)	1 (5%)	10 (50%)	6 (30%)
Had to work outside contracted hours (R)	1 (5%)	4 (20%)	2 (10%)	9 (45%)	4 (20%)

Note. *n* = 20 for each statement. (R) indicates reverse-coded statements.

TABLE B9. TEACHER REPORTS OF FEASIBILITY OF E-ELA UNIT 2

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Addresses academic standards fully	0 (0%)	0 (0%)	1 (5.9%)	10 (58.8%)	6 (35.3%)

TABLE B9. TEACHER REPORTS OF FEASIBILITY OF E-ELA UNIT 2

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Took too much time(R)	1 (5.9%)	3 (17.6%)	2 (11.8%)	6 (35.3%)	5 (29.4%)
Included required texts/genres	0 (0%)	0 (0%)	1 (5.9%)	9 (52.9%)	7 (41.2%)
Had to add activities to meet standards (R)	1 (5.9%)	1 (5.9%)	1 (5.9%)	7 (41.2%)	7 (41.2%)
Without looking for additional materials	1 (5.9%)	3 (17.6%)	1 (5.9%)	6 (35.3%)	6 (35.3%)
Doesn't provide enough for state tests (R)	1 (5.9%)	4 (23.5%)	4 (23.5%)	5 (29.4%)	3 (17.6%)
Fit well with state/district requirements	0 (0%)	2 (11.8%)	1 (5.9%)	10 (58.8%)	4 (23.5%)
Needed to omit activities (R)	1 (5.9%)	5 (29.4%)	0 (0%)	5 (29.4%)	6 (35.3%)
Had to work outside contracted hours (R)	0 (0%)	4 (23.5%)	2 (11.8%)	8 (47.1%)	3 (17.6%)

Note. *n* = 17 for each statement. (R) indicates reverse-coded statements.

TABLE B10. TEACHER REPORTS OF FEASIBILITY OF E-ELA UNIT 3

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Addresses academic standards fully	0 (0%)	0 (0%)	4 (22.2%)	8 (44.4%)	6 (33.3%)
Took too much time (R)	2 (10.5%)	3 (15.8%)	5 (26.3%)	6 (31.6%)	3 (15.8%)
Included required texts/genres	0 (0%)	1 (5.3%)	4 (21.1%)	9 (47.4%)	5 (26.3%)
Had to add activities to meet standards (R)	0 (0%)	2 (10.5%)	3 (15.8%)	9 (47.4%)	5 (26.3%)
Without looking for additional materials	2 (10.5%)	6 (31.6%)	4 (21.1%)	5 (26.3%)	2 (10.5%)
Doesn't provide enough for state tests (R)	0 (0%)	1 (5.6%)	6 (33.3%)	9 (50%)	2 (11.1%)
Fit well with state/district requirements	0 (0%)	1 (5.6%)	5 (27.8%)	8 (44.4%)	4 (22.2%)
Needed to omit activities (R)	2 (10.5%)	3 (15.8%)	7 (36.8%)	4 (21.1%)	3 (15.8%)

TABLE B10. TEACHER REPORTS OF FEASIBILITY OF E-ELA UNIT 3

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Had to work outside contracted hours (R)	0 (0%)	4 (21.1%)	5 (26.3%)	9 (47.4%)	1 (5.3%)

Note. Note. n = 18-19 depending on the statement. (R) indicates reverse-coded statements.

Appendix C. Student Outcome Results

TABLE C1. DETAILED RESULTS FOR ANALYSIS OF ELA OUTCOMES

	Main model			Model with district fixed effects			Model with student level covariates only			Fully implementing teachers		
Sample	*n*			*n*			*n*			*n*		
Students	3479			3479			3479			1146		
Teachers	85			85			85			45		
Fixed effects	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value
Group-specific constant												
English proficient	-0.719	0.633	.256	-0.690	0.631	.274	-0.150	0.341	.661	-0.768	0.927	.408
LTEL	-0.740	0.633	.243	-0.714	0.631	.258	-0.183	0.343	.593	-0.808	0.928	.384
EL Newcomers	-0.874	0.635	.168	-0.847	0.633	.181	-0.306	0.345	.375	-0.966	0.931	.299
Intermediate EL	-0.859	0.636	.177	-0.832	0.634	.189	-0.302	0.346	.383	-0.909	0.932	.329
Group-specific program effect												
Participating x English proficient	-0.046	0.056	.415	-0.032	0.077	.678	-0.033	0.060	.584	-0.080	0.071	.261
Participating x LTEL	0.015	0.065	.813	0.040	0.083	.633	0.024	0.067	.719	0.042	0.085	.626
Participating x EL Newcomers	0.213	0.105	.043	0.227	0.116	.050	0.217	0.107	.042	0.131	0.136	.335
Participating x Intermediate EL	0.063	0.109	.561	0.083	0.122	.496	0.092	0.110	.405	0.371	0.163	.023

TABLE C1. DETAILED RESULTS FOR ANALYSIS OF ELA OUTCOMES

	Main model			Model with district fixed effects			Model with student level covariates only			Fully implementing teachers		
Sample	*n*			*n*			*n*			*n*		
Students	3479			3479			3479			1146		
Teachers	85			85			85			45		
Fixed effects	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value
Student-level covariates												
Special education	-0.249	0.034	.000	-0.249	0.034	.000	-0.232	0.033	.000	-0.237	0.048	.000
Asian	0.054	0.047	.244	0.054	0.047	.244	0.061	0.045	.176	0.341	0.139	.014
Black	-0.073	0.052	.163	-0.073	0.052	.163	-0.065	0.051	.203	0.025	0.092	.788
Hispanic	-0.111	0.038	.004	-0.111	0.038	.004	-0.101	0.036	.005	-0.139	0.071	.050
Other race	0.039	0.084	.648	0.036	0.084	.669	0.025	0.084	.763	-0.037	0.126	.770
Female	0.040	0.021	.053	0.209	0.339	.537	0.042	0.020	.040	0.035	0.033	.291
Pretest x SBAC	0.698	0.015	.000	0.698	0.015	.000	0.715	0.015	.000	0.839	0.033	.000
Pretest x STAAR	0.680	0.018	.000	0.680	0.018	.000	0.706	0.017	.000	0.703	0.025	.000

TABLE C1. DETAILED RESULTS FOR ANALYSIS OF ELA OUTCOMES

	Main model			Model with district fixed effects			Model with student level covariates only			Fully implementing teachers		
Sample	*n*			*n*			*n*			*n*		
Students	3479			3479			3479			1146		
Teachers	85			85			85			45		
Fixed effects	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value
Section-level covariates												
% Asian	0.274	0.549	.618	0.250	0.546	.647				0.525	1.308	.688
% Black	0.584	0.585	.319	0.490	0.583	.401				0.829	1.002	.408
% Hispanic	0.469	0.523	.370	0.408	0.522	.434				0.860	0.862	.319
% White	0.348	0.567	.539	0.314	0.564	.578				1.208	0.978	.217
% female	0.115	0.127	.366	0.112	0.126	.374				0.242	0.192	.208
% LTEL	-0.082	0.115	.478	-0.026	0.117	.822				0.033	0.161	.836
% Newcomer EL	0.125	0.199	.529	0.134	0.198	.498				0.429	0.247	.083
% Intermediate EL	0.438	0.303	.148	0.424	0.303	.162				0.458	0.487	.348
% Sp. Ed. students	0.318	0.110	.004	0.309	0.110	.005				0.314	0.150	.037
Mean pretest	0.192	0.040	.000	0.191	0.040	.000				0.233	0.068	.001
St. dev. of pretest	0.189	0.081	.020	0.211	0.082	.010				0.057	0.170	.736
Class size	-0.001	0.001	.038	-0.001	0.001	.032				-0.001	0.004	.763

TABLE C1. DETAILED RESULTS FOR ANALYSIS OF ELA OUTCOMES

	Main model			Model with district fixed effects			Model with student level covariates only			Fully implementing teachers		
Sample	*n*			*n*			*n*			*n*		
Students	3479			3479			3479			1146		
Teachers	85			85			85			45		
Fixed effects	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value
District effects												
District 2				-0.169	0.126	0.180						
District 3				-0.388	0.261	0.137						
District 4				0.095	0.110	0.385						
Random effects	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value
Section (classroom)	0.005			0.004			0.008			0.007		
Teachers	0.022			0.023			0.028			0.009		
Residual (student)	0.338			0.338			0.339			0.282		
Proportion of total variance explained by fixed effects	0.678			0.678			0.658			0.701		

Note. Reference category for student race is "White". Reference category for district effects is District 1. All random effects are significant at $p < 0.01$.

TABLE C2. PAIRWISE DIFFERENCES OF ESTIMATED TREATMENT EFFECTS ACROSS GROUPS OF STUDENTS BY EL STATUS

Contrast	Estimate	Std. error	*p* value
English proficient - LTEL	-0.061	0.055	1.000
English proficient - Intermediate EL	-0.109	0.104	1.000
English proficient - Newcomers	-0.259	0.100	.050
LTEL - Intermediate EL	-0.048	0.108	1.000
LTEL - Newcomers	-0.198	0.104	.287
Intermediate EL - Newcomers	-0.150	0.134	1.000

TABLE C3. ASSOCIATION BETWEEN THE LENGTH OF EXPOSURE TO E-ELA AND ELPA TEST RESULTS

			Writing			Reading			Listening			Speaking		
Days of Instruction	Sample size	Pretest	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value
44	366	0.11	4.08	7.48	0.59	1.48	8.38	0.86	5.5	8.46	0.52	10.75	10.19	0.29
45	365	0.09	4.98	7.36	0.5	2.52	8.36	0.76	5.74	8.46	0.5	10.9	10.22	0.29
46	365	0.09	4.98	7.36	0.5	2.52	8.36	0.76	5.74	8.46	0.5	10.9	10.22	0.29
47	345	0.07	6.01	7.68	0.43	1.49	8.78	0.87	6.2	8.89	0.49	12.04	10.52	0.25
48	330	0.08	7.46	7.9	0.35	1.72	9.02	0.85	7.95	8.8	0.37	15.06	10.68	0.16
49	325	0.07	7.88	7.82	0.31	1.88	9.04	0.83	8.56	8.73	0.33	15.28	10.79	0.16
50	325	0.07	7.88	7.82	0.31	1.88	9.04	0.83	8.56	8.73	0.33	15.28	10.79	0.16
51	325	0.07	7.88	7.82	0.31	1.88	9.04	0.83	8.56	8.73	0.33	15.28	10.79	0.16
52	325	0.07	7.88	7.82	0.31	1.88	9.04	0.83	8.56	8.73	0.33	15.28	10.79	0.16
53	265	0.01	15.62	9.16	0.09	12.28	10.53	0.24	16.84	10.01	0.09	20.58	11.29	0.07
54	150	0.02	15.97	8.68	0.07	14.72	10.67	0.17	22.13	9.25	0.02	35.94	12.21	0
55	115	0.01	8.48	11.63	0.47	7.68	12.93	0.55	12.09	12.68	0.34	31.16	16.66	0.06
56	45	0.33	23.26	15.11	0.12	21.23	19.14	0.27	29.97	17.72	0.09	51.69	28.53	0.07

Note. Days of instruction in left column are lower boundaries for each sample. I. e. 54 means 54 or more days before the program start and the test date.

TABLE C4. ESTIMATES OF EFFECT OF E-ELA ON ELPA OUTCOMES AT IMPACT DOSAGE (54 CALENDAR DAYS OR MORE): LTEL VS. OTHER EL STUDENTS

	Writing			Reading			Listening			Speaking		
Days of Instruction	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value	Estimate	Std. error	*p* value
Intercept	51.79	33.74	0.12	62.25	41.23	0.13	117.07	36.06	0	62.25	41.23	0.13
Program Effect: LTEL	22.03	10.63	0.04	18.82	12.27	0.13	29.67	11.12	0.01	18.82	12.27	0.13
Program Effect: other EL students	5.15	13.99	0.71	7.63	16.27	0.64	9.65	14.63	0.51	7.63	16.27	0.64
Pretest	0.99	0.06	0	0.94	0.07	0	0.85	0.07	0	0.94	0.07	0
LTEL	-10.51	9.63	0.28	-4.73	9.86	0.63	-2.77	9.65	0.77	-4.73	9.86	0.63
Special ed.	-17.9	18.6	0.34	-50.22	19.95	0.01	-43.7	19.26	0.02	-50.22	19.95	0.01
Asian	17.26	13.85	0.21	37	14.98	0.01	18.08	14.47	0.21	37	14.98	0.01
Black	51.51	41.01	0.21	35.28	43.86	0.42	52.97	42.84	0.22	35.28	43.86	0.42
Hispanic	-5.87	10.93	0.59	4.31	11.98	0.72	-3.87	11.41	0.73	4.31	11.98	0.72
White	14.22	20.25	0.48	22.73	21.74	0.3	20.27	21.19	0.34	22.73	21.74	0.3
Female	6.15	6.87	0.37	0.35	7.34	0.96	1.09	7.16	0.88	0.35	7.34	0.96
Proportion of total variance explained by fixed effects	0.713			0.628			0.633			0.563		