RESEARCH RESULTS
English 3D: Lewiston Public Schools

STUDY PROFILE

DISTRICT:
Lewiston Public Schools, Lewiston, ME

GRADES:
4–12

STUDY DESIGN:
Tier 3: Promising (ESSA)[1]

EVALUATION PERIOD:
2022–2023 school year

STUDY CONDUCTED BY:
Forge Research Group

OUTCOME MEASURES:
- NWEA Measures of Academic Progress (MAP) Growth Reading
- ACCESS English Language Proficiency
- Maine Through Year Assessment

IMPLEMENTATION:
Grades 4–6: 40–80 minutes daily dependent on WIDA level
Grades 7–12: 60 minutes every other day

DISTRICT CHARACTERISTICS

Lewiston Public Schools is a public school district in the suburbs of Lewiston, Maine. With seven schools, Lewiston Public Schools served 5,183 students in kindergarten through 12th grade in the 2022–2023 school year [2]. Lewiston Public Schools served students with a range of ethnic backgrounds[3]: African American (25%), Asian or Pacific Islander (4%), Caucasian (56%), and students with multiple ethnic backgrounds (14%), with 5% of any race identifying as Hispanic or Latino. In the 2022–2023 school year, 30.5% of students were identified as low income, 23.1% were English learners, and 11.5% had an Individualized Education Plan (IEP).

IMPLEMENTATION OVERVIEW

IMPLEMENTATION MODEL

Most English learners in Grades 4–12 (termed multilingual learners or MLs in the Lewiston Public Schools) participated in *English 3D*® when scoring an ACCESS overall performance level of 1.0–4.4, unless classified as a Student with Limited or Interrupted Formal Education (SLIFE) or qualifying for Newcomer programming. Some *English 3D* students transitioned into a different type of programming (i.e., integrated ELD/ELA or co-taught) to better fit their needs after scoring an ACCESS overall performance level of 4.0-4.4. EL students also received core ELA instruction using Lucy Calkins Units of Study in elementary school, Expeditionary Learning Curriculum in middle school, and teacher-created materials in high

school. Some EL students received instruction using Vista Connect in Grades K–3; Vista Sail, Soar, and Get Ready in Grades 2–12; and *Read 180* or *System 44* in high school.

Dr. Kate Kinsella, *English 3D* author, and her team provided implementation training for Lewiston Public Schools EL teachers, who participated in one to five full-day training sessions. Implementation materials included a teaching guide outlining the three essential routines (partner and group interactions, response frames, and setting up and monitoring tasks), key EL instruction techniques, use of *English 3D* assessment and differentiated learning materials, and a planning guide. During the initial professional learning session, EL teachers went over the teaching guide and available resources, and they discussed how to establish a learning environment customized to EL instruction and experienced a model lesson of each type of instructional routine from the student perspective. Teachers also had access to virtual coaching support, and the Lewiston Public Schools Multilingual Department administrators also participated regularly in *English 3D* professional development opportunities to utilize the same language and reinforce implementation throughout the year during instructional observations.

"Having Dr. Kinsella come present her research and its connection to the program was an inspiration to so many staff. Understanding the 'why' behind the routines and structures of E3D from the author increased buy-in and overall excitement around implementation."

– Lewiston Public Schools employee

PARTICIPANTS

Seven Lewiston Public Schools serving students in Grades 4–12 utilized *English 3D* as an English language development program beginning in the 2021–2022 school year. All students who were designated as enrolled in *English 3D* with at least one data point were included in the 2022–2023 school year analysis (*N* = 777).

In the 2022–2023 school year, students in this analysis attended Connors Elementary, Farwell Elementary, Montello Elementary, Raymond A. Geiger Elementary, Thomas J. McMahon Elementary, Lewiston Middle School, and Lewiston High School. Student ethnic backgrounds included Asian (1.2%), Black or African American (92.1%), Hispanic (2.3%), multiple ethnic backgrounds (<1%), Native Hawai'ian or Pacific Islander (<1%), and White (3.5%). Of these students, 46.2% were female and 53.8% were male, and 23.3% had a specific disability diagnosis.

TABLE 1. LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS, GRADES 4–12 (*N* = 777) DEMOGRAPHICS 2022–2023		
Characteristics	**2022–2023** **N = 777**	
	N	**Percent**
Grade		
4	117	15.1%
5	101	13.0%
6	85	10.9%
7	85	10.9%
8	97	12.5%
9	80	10.3%
10	79	10.2%
11	75	9.7%
12	53	6.8%
Not Identified	5	0.6%
Gender		
Male	418	53.8%
Female	359	46.2%
Ethnicity		
Asian	9	1.2%
Black/African American	716	92.1%
Hispanic	18	2.3%
Multiple Ethnicities	6	0.8%
Native Hawai'ian/Pacific Islander	1	0.1%
White	27	3.5%
Students With a Diagnosis	**181**	**23.3%**
Diagnosis		
Autism	4	2.2%
Emotional Disturbance	17	9.4%
Hearing Impairment	1	0.6%
Intellectual Disability	13	7.2%
Multiple Disabilities	13	7.2%
Other Health Impairment	32	17.7%
Specific Learning Disability	87	48.1%
Speech Language Impairment	13	7.2%
Visual Impairment/Blindness	1	0.6%
School		
Connors Elementary	100	12.9%
Farwell Elementary	20	2.6%
Montello Elementary	90	11.6%
Raymond A. Geiger Elementary	50	6.4%
Thomas J. McMahon Elementary	40	5.1%
Lewiston Middle School	175	22.5%
Lewiston High School	291	37.5%
Outplaced	6	0.8%
Not Identified	5	0.6%

MEASURES

Measures of Academic Progress (MAP) Reading

Measures of Academic Progress (MAP®) Growth is a computer-adaptive interim (fall, winter, and spring) assessment developed by the Northwest Evaluation Association (NWEA) that measures reading, language usage, and mathematics. The primary score produced is the Rasch Unit (RIT) scale, which is a stable equal-interval vertical scale. This grade-independent RIT score indicates the level of question difficulty a given student can answer correctly about 50% of the time. National percentile ranks for the MAP are also provided; a percentile of 40 or greater indicates grade-level proficiency. Lewiston Public Schools students completed the MAP Reading assessment in the fall of the 2022–2023 school year.

Maine Through Year Assessment

The Maine Through Year Assessment was aligned to Common Core State Standards and serves as both an interim (growth in fall, winter, and spring) and summative (end-of-year standards) assessment. Scores include a RIT reading score comparable to those provided by the NWEA MAP Growth assessment to allow for the continued use of longitudinal RIT score data. Additionally, a scale score aligned to state standards and corresponding achievement level (Well Below, Below, At, and Above State Expectations) is generated during spring testing. Lewiston Public Schools students in Grades 3–8 and 10 completed the Maine Through Year Assessment beginning in spring 2023.

ACCESS FOR ELLs

ACCESS for ELLs®, a part of the WIDA® suite of English language development tests, was designed to annually assess the progress of EL students toward English language proficiency. ACCESS is aligned to WIDA English language development standards and assesses progress in the four domains of listening, speaking, reading, and writing English. Assessment results include an overall scale score comparable across grades (from 100 to 600) and a grade-specific proficiency level descriptor for each domain (Entering, Emerging, Developing, Expanding, Bridging, and Reaching), as well as an overall composite score (35% reading, 35% writing, 15% listening, and 15% speaking) and related overall proficiency level. The Maine Department of Education defines English language proficiency as a composite proficiency level of 4.5 on ACCESS for ELLs. Lewiston students designated as EL completed the ACCESS each spring.

RESULTS

An independent evaluator from Forge Research Group analyzed student academic achievement using test score data provided by Lewiston Public Schools. *English 3D* students' English language arts (ELA) performance was examined using multiple independent measures of reading and language. This analysis included post-implementation scores on the MAP reading assessment, the ACCESS assessment, and the Maine Through Year state assessment.

RIT SCALE SCORE FINDINGS

Lewiston Public School students took the Measurement of Academic Progress (MAP) Reading assessment in fall 2022 and the Maine Through Year Assessment, which produces a comparable RIT score, in spring 2023. These assessments are aligned to the Common Core State Standards (CCSS) and measure student growth in skills needed to progress in college and career readiness. Lewiston Public Schools *English 3D* students demonstrated a statistically significant overall increase in Reading RIT scale scores, averaging an 8-point gain from fall to spring in the 2022–2023 school year (see Figure 1), effect size Cohen's d = .61. When results were disaggregated by student category, students with disabilities (effect size Cohen's d = .75), males and females (effect size Cohen's d = .50–.73), students of each ethnic background (effect size Cohen's d = .57–1.24), and students in each grade 4–11 (effect size Cohen's d = .26–1.20) achieved statistically significant fall-to-spring Reading RIT scale score gains (see Appendix Table 1).

FIGURE 1
LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–12 (*N* = 547)
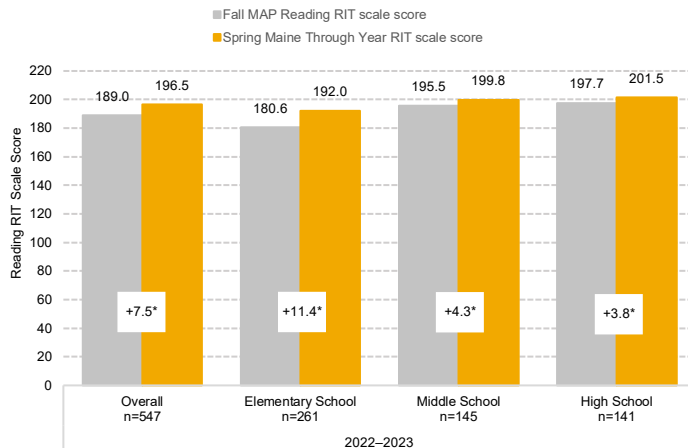**CHANGE IN READING RIT SCALE SCORE OVERALL AND BY GRADE LEVEL, 2022–2023**

Figure note: *statistically significant change at one-sided *p* < .05.

In contrast to national EL student trends of diminished ELA growth (NAEP, 2017), Lewiston Public Schools *English 3D* students at each grade level met or exceeded national Reading RIT scale score growth projections[4] (see Figure 2), averaging 1.6 times more growth than expected (7.6 points of growth compared to 4.8 points expected growth). Of note, elementary school students averaged 1.7 times more growth than expected (11.5 points of growth compared to 6.8 points expected growth), and high school students averaged 1.8 times more growth than expected (3.7 points of growth compared to 2.1 points expected growth). When results were disaggregated by student category, males and females, students with disabilities, and students of each ethnic background (with *N* > 10) achieved statistically significantly greater Reading RIT scale score growth than expected. Further, students at each school met or exceeded national Reading RIT scale score growth projections, demonstrating between 1.2 and 2.1 times more growth than expected. Qualitative reports likewise indicate that *English 3D* students demonstrated accelerated ELA growth in the 2022–2023 school year.

"Students report the rigor being more challenging in E3D than in some general education settings. Furthermore, general education teachers (especially at the elementary levels) report a noticeable transfer of some skills into general education assignments and activities."
— Lewiston Public Schools employee

FIGURE 2
LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–12 (*N* = 546)
READING RIT SCALE SCORE ACTUAL COMPARED TO PROJECTED GROWTH OVERALL AND BY GRADE LEVEL, 2022–2023
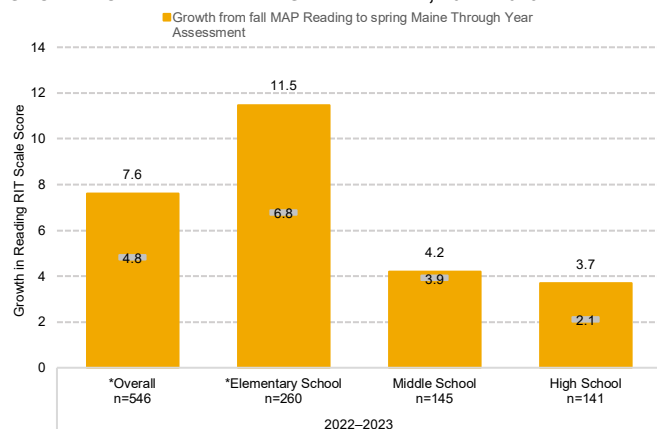

Figure note: *statistically significant difference between projected and actual growth at one-sided *p* < .05.

ACCESS FOR ELLs FINDINGS

Lewiston Public Schools *English 3D* students completed the ACCESS for ELLs in spring 2022 and spring 2023, after *English 3D* implementation in the 2021–2022 school year. On average, students who took the assessment in both years (*N* = 489; see Figure 3) demonstrated statistically significant year-to-year increases in overall composite scores (from 331 to 347, effect size Cohen's d = .65), reading domain scores (from 342 to 358, effect size Cohen's d = .54), writing domain scores (from 311 to 325, effect size Cohen's d = .38), listening domain scores (from 380 to 400, effect size Cohen's d = .41), and speaking domain scores (from 304 to 323, effect size Cohen's d = .37). Of note, elementary school students averaged a statistically significant 25-point year-to-year gain in overall composite scores, effect size Cohen's d = .99; middle school students averaged a statistically significant 11-point year-to-year gain, effect size Cohen's d = .61; and high school students averaged a statistically significant 7-point year-to-year gain, effect size Cohen's d = .26. When results were disaggregated by student category, males and females, students with a disability, and students of each ethnic background (with *N* > 5) achieved statistically significant year-to-year gains in ACCESS overall composite scores, effect size Cohen's d = .60–.1.43 (see Appendix Table 2).

FIGURE 3
LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–12 (*N* = 489)
CHANGE IN ACCESS SCALE SCORE OVERALL AND BY DOMAIN, SPRING 2022 TO SPRING 2023
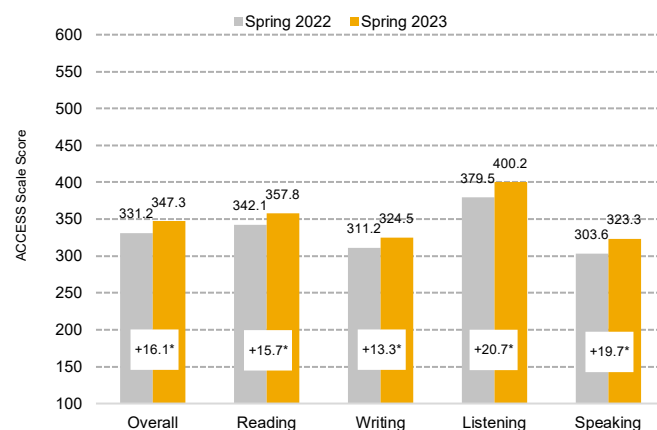

Figure note: *statistically significant change at one-sided *p* < .05.

Comparing the scores of all *English 3D* students (*N* = 511 in 2022 and *N* = 624 in 2023), mean scores were higher in 2023 as compared to 2022. Overall, *English 3D* student average scores increased from 332 to 344 in overall composite score, from 342 to 357 on the reading domain, from 311 to 320 on the writing domain, from 380 to 395 on the listening domain, and from 305 to 316 on the speaking domain (see Table 2), indicating greater overall ELA proficiency following *English 3D* implementation.

---

[4] A student's projected RIT growth is the predicted future score for a student who makes typical growth, based on NWEA national growth norms. Projections account for the student's initial score, grade level, and time between tests.

TABLE 2. LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–12 (*N* = 646)
ACCESS SCALE SCORE OVERALL AND BY DOMAIN, SPRING 2022 AND SPRING 2023

	Mean Scores 2022 *N* = 511	Mean Scores 2023 *N* = 624
Overall	331.7	343.7
Reading	342.4	357.0
Writing	311.7	320.1
Listening	380.3	394.6
Speaking	304.5	316.4

Student ACCESS proficiency levels (scored from 1–6) varied greatly by domain (see Figure 4). From spring 2022 to spring 2023, *English 3D* students who took the assessment in both years (*N* = 489) achieved a statistically significant increase in overall composite (effect size Cohen's d = .37), reading (effect size Cohen's d = .32), writing (effect size Cohen's d = .18), listening (effect size Cohen's d = .19), and speaking (effect size Cohen's d = .24) grade-specific proficiency levels. The percentage of students who achieved a level 4 "Expanding" or greater proficiency level increased from 15% to 23% overall, from 20% to 33% in reading, from 6% to 11% in writing, from 68% to 76% in listening, and from 11% to 23% in speaking. Importantly, 9% of students in the 2021–2022 school year and another 19% in the 2022–2023 school year achieved at least a "Bridging" reading proficiency level, indicating an ability to understand written language in English from all academic classes. Qualitative reports likewise indicate that *English 3D* students demonstrated academic language growth in the 2022–2023 school year.

"It [English 3D] has increased the rigor and accountability for academic language usage while still offering supports. When the routines are used with fidelity, it encourages students to read, write, listen, and speak daily while gaining exposure and explicit instruction around language development. While some scaffolding is necessary for students at lower proficiency Levels, teachers can apply the routines while pre-teaching or supplementing content while staying true to the program."

– Lewiston Public Schools employee

FIGURE 4
LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–11 (*N* = 489)
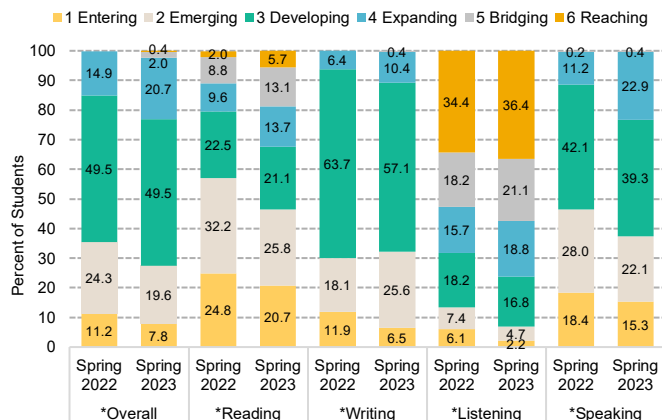**CHANGE IN ACCESS PROFICIENCY LEVEL OVERALL AND BY DOMAIN, SPRING 2022 TO SPRING 2023**

Figure note: *statistically significant increase at one-sided *p* < .05.

EL RECLASSIFICATION

In the 2022–2023 school year, 9% (54/624) of the Lewiston Public Schools *English 3D* students (with 2023 ACCESS data) were reclassified (see Figure 5).

FIGURE 5
LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–12 (*N* = 624)
EL RECLASSIFCIATION, 2022–2023
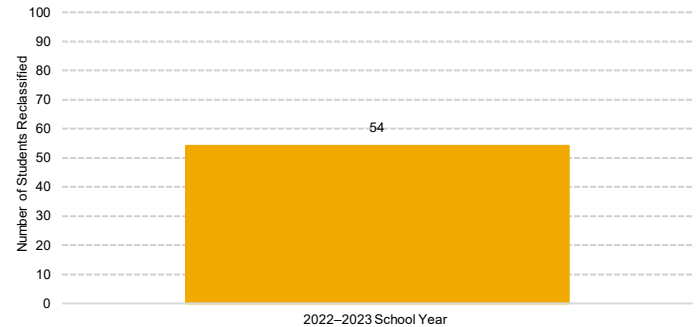
Maine EL students are considered proficient once they achieve an ACCESS overall composite proficiency level of 4.5 or greater. Though not every EL student in Lewiston Public Schools participated in *English 3D*, approximately 72% participated in the 2022–2023 school year. Notably, the percentage of EL students in the district who achieved a proficient ACCESS overall composite proficiency level increased each year following *English 3D* implementation in the 2021–2022 school year (see Figure 6)[5], from 3.9% of students achieving proficiency in 2021 to 5.3% of students achieving proficiency in 2022, and 6.6% of students achieving proficiency in 2023. In contrast, the statewide percentage of EL students who achieved a proficient ACCESS overall composite proficiency level remained stable or decreased each of the past three years, from 8.9% of students achieving proficiency in 2021 and 2022 to 7.8% of students achieving proficiency in 2023. These trends indicate that Lewiston Public Schools EL students have maintained accelerated growth toward competency during a time when many EL students statewide have struggled to maintain English language development growth.

FIGURE 6
LEWISTON PUBLIC SCHOOLS EL STUDENTS (*N* = 1112–1199) AND ALL MAINE EL STUDENTS (*N* = 2466–5610)
**PERCENT ACHIEVING ENGLISH LANGUAGE PROFICIENCY SPRING 2021 TO SPRING 2023**
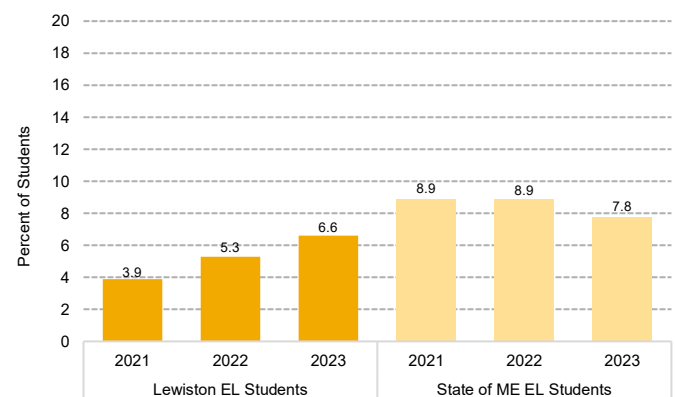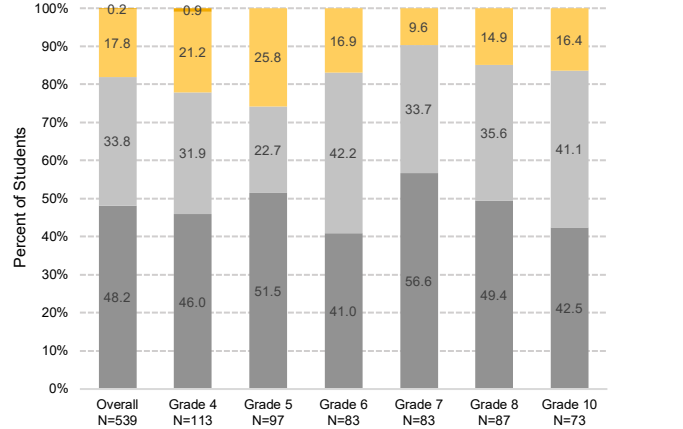

MAINE THROUGH YEAR ASSESSMENT FINDINGS

English 3D students completed the Maine Through Year Assessment for the first time in spring 2023. On average (see Figure 7), Lewiston Public Schools *English 3D* students earned scale scores of 1487 (with a possible range of 1400–1600).

FIGURE 7
LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–8 AND 10 (*N* = 539)
MAINE THROUGH YEAR ASSESSMENT SCALE SCORES OVERALL AND BY GRADE, SPRING 2023
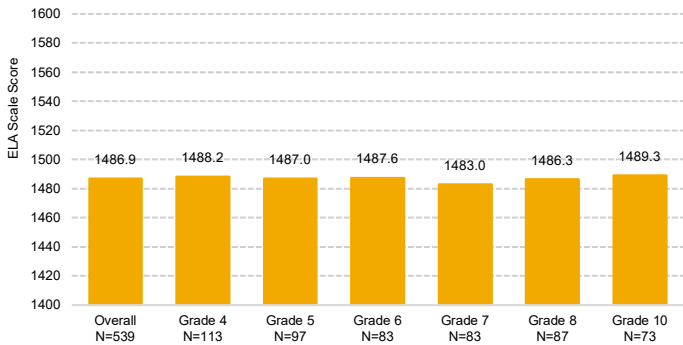
The Maine Through Year Assessment four-digit student performance scores fall within one of four achievement levels: Well Below, Below, At, and Above State Expectations. Lewiston Public Schools student achievement levels indicated that 18% of the *English 3D* students scored At or Above grade-level ELA expectations in the 2022–2023 school year (see Figure 8).

FIGURE 8
LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–8 AND 10 (*N* = 539)
MAINE THROUGH YEAR ASSESSMENT ACHIEVEMENT LEVEL DESCRIPTORS OVERALL AND BY GRADE, SPRING 2023

English 3D students' spring 2023 Maine Through Year Assessment reading scores were highly correlated (see Table 3) with 2023 ACCESS composite scores (*r* = .52, *p* < .001). This relationship indicates a likelihood that, as students continue to make ACCESS score gains, they will also demonstrate Maine Through Year Assessment reading score gains.

TABLE 3. LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–10 (*N* = 473) OUTCOME MEASURE CORRELATIONS SPRING 2023

	ACCESS Composite 2023	
	r	*p*
Maine Through Year Assessment Spring 2023	0.52	<.001

CONCLUSION

Lewiston Public Schools EL students in Grades 4–12 received *English 3D* instruction during the 2022–2023 school year. The student ELA assessment data is consistent with the idea that students who received *English 3D* instruction made accelerated gains in English language arts and literacy achievement.

Lewiston Public Schools *English 3D* students demonstrated a statistically significant 8-point increase from fall to spring MAP Reading RIT Scale scores. Of note, statistically significant MAP Reading RIT Scale score gains were achieved by students in each demographic category of gender, ethnicity, and Students with Disabilities classification (effect size Cohen's d = .50–1.24). Further, *English 3D* students achieved greater MAP Reading RIT Scale score gains than would be predicted based on national growth norms, averaging 7.6-point gains compared to the expected 4.8-point gains in the 2022–2023 school year. Additionally, *English 3D* students demonstrated school-year growth equal to (middle and high school students) or greater than (elementary school students) their non-English learner peers on the MAP Reading assessment. These typical and accelerated grade-level gains were achieved in contrast with the typically found widening achievement gap between EL students and non-EL students during the elementary through high school years (NAEP, 2017).

English 3D students who completed the exam in both years also demonstrated statistically significant gains in ACCESS Overall composite scores and in each domain of reading, writing, listening, and speaking. Of note, statistically significant ACCESS score gains were achieved by students in each demographic category of gender, ethnicity, and Students with Disabilities classification (effect size Cohen's d = .60–1.43). Likewise, *English 3D* students demonstrated statistically significant ACCESS Overall composite, reading, writing, listening, and speaking proficiency level increases from the 2021–2022 school year to the 2022–2023 school year. As a result of these gains, a larger percentage of *English 3D* students (9%) were reclassified as compared to all Lewiston Public Schools EL students (7%) in the 2022–2023 school year. Further, a larger percentage of Lewiston Public Schools EL students achieved English language proficiency each year following *English 3D* implementation, increasing from 3.9% in 2021 to 6.6% in 2023, in contrast to statewide decreases in the percentage of EL students who achieved English language proficiency (from 8.9% to 7.8%) during the same time period.

End-of-year Maine Through Year ELA assessment scores showed that 18% of *English 3D* students scored "At" or "Above" grade-level ELA expectations in the 2022–2023 school year. Though these summative assessments do not adequately capture ELA growth occurring far below grade-level proficiency, the strong correlations between the Maine Through Year and the ACCESS assessment composite scores suggest that as *English 3D* students continue to make ACCESS composite score gains, they will also make Maine Through Year ELA score gains.

These study results, corroborated by Lewiston Public Schools employee feedback, provide evidence that using *English 3D* to improve English language development is an effective method of increasing literacy for EL students struggling to achieve grade-level ELA proficiency.

REFERENCES

National Department of Educational Progress (NAEP). (2017). *The nation's report card: 2017 reading assessment*. U.S. Department of Education.

APPENDIX

TABLE 1.
LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–12 (*N* = 547)
RESULTS OF T-TEST AND DESCRIPTIVE STATISTICS READING RIT SCORE, FALL 2022–SPRING 2023

	Fall MAP Reading Score		Spring MAP Reading Score			95% CI for Mean Difference					Effect Size
	M	*SD*	*M*	*SD*	*n*	Lower	Upper	*t*	df	*p*	Cohen's d
2022–2023											
Overall	188.96	17.43	196.49	12.68	547	-8.58	-6.49	-14.16	546	< .001	.61
Grade											
Fourth	179.58	15.46	188.14	11.94	100	-10.75	-6.37	-7.76	99	< .001	.78
Fifth	177.78	15.98	193.05	11.02	86	-17.99	-12.54	-11.14	85	< .001	1.20
Sixth	185.16	13.31	196.20	9.48	74	-13.57	-8.51	-8.68	73	< .001	1.01
Seventh	193.12	14.90	197.86	11.44	74	-7.47	-2.02	-3.47	73	< .001	.40
Eighth	198.19	13.76	201.97	10.82	70	-6.36	-1.21	-2.93	69	.002	.35
Ninth	198.72	15.09	201.48	16.47	61	-5.17	-0.34	-2.29	60	.013	.29
Tenth	200.01	17.24	203.97	7.62	68	-7.60	-0.32	-2.17	67	.017	.26
Eleventh	179.71	14.38	187.57	10.68	7	-14.91	-0.81	-2.73	6	.017	1.03
Twelfth	179.00	9.08	186.20	15.45	5	-22.44	8.04	-1.31	4	.130	.59
Gender											
Female	188.47	16.75	197.32	12.75	264	-10.33	-7.38	-11.81	263	< .001	.73
Male	189.42	18.06	195.71	12.58	283	-7.77	-4.83	-8.43	282	< .001	.50
Ethnicity											
African American/Black	189.58	17.27	196.67	12.71	504	-8.18	-6.01	-12.83	503	< .001	.57
Asian	181.50	20.66	193.50	11.11	6	-26.47	2.47	-2.13	5	.043	.87
Hispanic	186.73	11.47	195.91	9.93	11	-16.09	-2.27	-2.96	10	.007	.89
White/Caucasian	177.00	18.99	191.59	12.57	22	-19.79	-9.39	-5.84	21	< .001	1.24
Multiracial	-	-	-	-	4	-	-	-	-	-	-
Students With Disabilities											
Yes	182.51	16.89	192.43	12.31	132	-12.21	-7.64	-8.59	131	< .001	.75

Table note: M = mean; *SD* = standard deviation; *n* = sample size; CI = confidence interval; df = degrees of freedom; *p* = one-sided significance. Demographic categories with less than 5 students are suppressed to maintain student confidentiality.

TABLE 2.
LEWISTON PUBLIC SCHOOLS *ENGLISH 3D* STUDENTS GRADES 4–12 (*N* = 489)
RESULTS OF T-TEST AND DESCRIPTIVE STATISTICS COMPOSITE ACCESS SCORE, SPRING 2022 TO SPRING 2023

	2022 ACCESS Composite Score		2023 ACCESS Composite Score			95% CI for Mean Difference					Effect Size
	M	*SD*	*M*	*SD*	*n*	Lower	Upper	*t*	df	*p*	Cohen's d
2022–2023											
Overall	331.16	34.66	347.25	31.18	489	-18.29	-13.88	-14.32	488	< .001	.65
Reading Domain	342.14	35.28	357.76	35.00	489	-18.17	-13.07	-12.04	488	< .001	.54
Writing Domain	311.16	41.79	324.51	36.92	487	-16.45	-10.24	-8.45	486	< .001	.38
Listening Domain	379.51	52.34	400.23	39.65	489	-25.17	-16.27	-9.15	488	< .001	.41
Speaking Domain	303.60	53.45	323.26	51.33	489	-24.42	-14.89	-8.10	488	< .001	.37
Grade											
Fourth	305.98	32.41	341.27	33.36	85	-40.19	-30.40	-14.34	84	< .001	1.56
Fifth	321.55	30.04	346.87	36.00	78	-30.37	-20.27	-9.99	77	< .001	1.13
Sixth	328.71	37.05	338.46	25.53	63	-15.74	-3.75	-3.25	62	< .001	.41
Seventh	330.53	24.68	341.35	26.09	60	-15.84	-5.79	-4.31	59	< .001	.56
Eighth	334.59	27.95	346.29	29.06	59	-16.25	-7.14	-5.14	58	< .001	.67
Ninth	347.00	29.29	359.20	24.83	45	-19.66	-4.74	-3.30	44	< .001	.49
Tenth	354.35	33.24	356.78	32.99	51	-8.52	3.66	-0.80	50	.213	.11
Eleventh	354.00	30.78	359.95	30.10	42	-14.62	2.72	-1.39	41	.086	.21
Twelfth	335.33	38.96	337.67	29.69	6	-27.39	22.72	-0.24	5	.410	.10
Gender											
Female	330.03	33.01	346.83	29.99	229	-20.11	-13.50	-10.03	228	< .001	.66
Male	332.36	36.04	347.63	32.15	262	-18.24	-12.30	-10.12	261	< .001	.63
Ethnicity											
African American/Black	333.53	32.12	348.49	29.42	458	-17.21	-12.70	-13.05	457	< .001	.61
Asian	-	-	-	-	4	-	-	-	-	-	-
Hispanic	332.17	39.04	355.33	20.43	6	-45.61	-0.72	-2.65	5	.023	1.08
White/Caucasian	287.58	47.78	325.00	42.52	19	-50.05	-24.79	-6.23	18	< .001	1.43
Multiracial	-	-	-	-	4	-	-	-	-	-	-
Students With Disabilities											
Yes	315.92	31.86	331.02	28.11	121	-19.61	-10.60	-6.64	120	< .001	.60

Table note: M = mean; *SD* = standard deviation; *n* = sample size; CI = confidence interval; df = degrees of freedom; *p* = one-sided significance. Demographic categories with less than 5 students are suppressed to maintain student confidentiality.

Check out more *English 3D* research at hmhco.com/english-3d-research.