Research Report

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Exploring Relationships Between English Proficiency and ACT® Test Performance of English Learners

State 1

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Conclusions

This report contains the findings from State 1 of a two-state study investigating relationships between English proficiency and the performance of English learners (ELs) on the ACT® test. For both states, we found that the English proficiency level of ELs was a significant predictor of performance on the ACT, such that students with lower levels of English proficiency tended to have lower ACT scores and students with higher levels of English proficiency tended to have higher ACT scores. Additional analyses from State 2 suggest that the scores of students scoring at the lowest English proficiency levels may reflect some amount of construct-irrelevant variance due to limited English proficiency. The results of this study indicate that English proficiency levels of ELs should be taken into consideration when interpreting the ACT scores of ELs; in particular, caution should be exercised when drawing conclusions about the knowledge and skills of ELs with the lowest levels of English proficiency.

So What?

It is important that users of test scores consider not only the knowledge and skills that are being measured by the test but also other contextual information that may be relevant when interpreting scores. For English learners, limited English proficiency can impact students' ability to adequately access the test content and accurately respond to the test items, leading to construct-irrelevant variance and resulting in scores that may not fully represent what they know and can do. This study provides evidence that English proficiency is indeed strongly related to performance on the ACT, and caution should be exercised when interpreting the scores of students at the lowest levels of English proficiency.

Now What?

Future research should replicate these findings with other testing programs and in other states to further build up evidence of how well we are measuring the knowledge and skills of English learners when the test content is in English, especially for students with the lowest levels of English proficiency.

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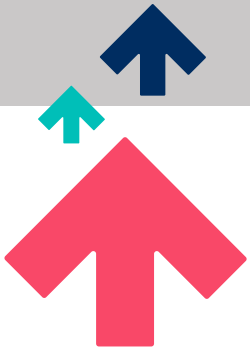

Abstract

This study examined relationships between English proficiency and the performance of English learners (ELs) on the ACT® test. Using a sample of students from a U.S. state who took both WIDA ACCESS English proficiency assessments and the ACT in Grade 11 during the 2017–18 to 2023–24 school years (except for the 2019–20 school year, which was disrupted by the COVID-19 pandemic), we found that ACCESS Reading scores had a strong relationship with performance on the ACT across all test sections and the Composite score. Students with lower levels of English proficiency as measured by ACCESS Reading tended to have lower ACT scores, and as reading proficiency increased, performance on the ACT increased. This study, along with a companion study from a second state, suggests that caution should be exercised when interpreting the ACT scores of students at the lowest levels of English proficiency.

Introduction

This report contains the findings from State 1 of a two-state study investigating relationships between English proficiency and performance of English learners (ELs) on the ACT test. Both participating states have been administering the ACT to all Grade 11 students for multiple years, and both states have been members of the WIDA consortium for multiple years. Both states provided data files containing student-level demographic information, and WIDA ACCESS data were obtained either from the state or from WIDA, with the state's permission. Parallel analyses were conducted across the two states where possible, and Grade 11 high school transcript data provided by State 2 allowed for additional analyses related to grades earned, credit hours earned, and coursework taken. Additional details about the State 1 data samples are provided below, and the State 2 findings can be found in a separate report (Moore, Schnieders, Li, & Qiu, 2026).

ACT began offering testing supports (also referred to as language supports or accommodations) to ELs in the fall of 2017. These supports include (a) extended time (one and one-half, single day), (b) translated test instructions that ACT provides, and (c) use of an approved word-to-word bilingual dictionary without definitions. ACT has conducted research investigating ACT performance, score gains, and psychometric properties of the scores of ELs taking the ACT with or without supports compared to non-ELs (Moore, 2021; Moore et al., 2021), as well as the experiences and perceptions of ELs testing with supports (Schnieders et al., 2023).

In general, the research cited above has found that ELs (with or without testing supports) tend to score lower on the ACT than non-ELs. ELs are also more likely than non-ELs to report lower family income and to report that their parents did not attend college, suggesting potentially less access to resources that are available to more affluent students. ELs earn lower high school grades, are less likely to take core academic courses such as trigonometry, calculus, or chemistry, and are less likely to take AP or honors courses, all of which likely contributes to their lower performance on the ACT (Moore, 2021).

One limitation of the research cited above is that data used in these studies did not include students' English language proficiency (ELP) scores, making it impossible to disentangle the

extent to which the lower performance of ELs, when compared to their peers, was due to true differences in academic achievement, the impact of limited language proficiency, differences in opportunity to learn the tested material, access to educational resources, or other factors. ACT English scores were considered as a rough proxy for ELP, but as a college readiness assessment the ACT test was not designed to measure the ELP of ELs. For the current study, we obtained ELP scores from two states that administer the ACT annually to virtually all Grade 11 students in each state, allowing us to investigate relationships between ELP and performance on the ACT.

The WIDA consortium has a suite of large-scale ELP assessments called ACCESS that are administered annually to ELs in K–12 in multiple states. The ACCESS assessment measures English proficiency in four domains: Listening, Speaking, Reading, and Writing. Examinees receive proficiency levels and scores for each domain. Proficiency levels map to six performance levels: Entering, Emerging, Developing, Expanding, Bridging, and Reaching. Proficiency levels are on a 1.0–6.0 scale, and scores are on a 100–600 scale. The whole number for proficiency level score corresponds to the student's proficiency level, and the decimal indicates progress within that level. Proficiency levels are grade and domain specific (WIDA, 2025).

In addition to the four domain scores and levels, several composite scores and levels are also calculated:

- Oral Language (50% Listening + 50% Speaking)
- Literacy (50% Reading + 50% Writing)
- Comprehension (70% Reading + 30% Listening)
- Overall (35% Reading + 35% Writing + 15% Listening + 15% Speaking)

It is anticipated that in a study of relationships between English proficiency and ACT performance, the Reading domain will be the most relevant to students' ability to access the test content and demonstrate what they know, since the ACT is administered as a written test (except for students with visual impairments who require verbal administration).

The purpose of this research study is to investigate ACT performance by WIDA's ACCESS scores and proficiency levels, to answer the following research questions:

Research Questions

1. What are the average ACCESS scores and ELP level distributions for ELs taking the ACT? To what extent do the average ACCESS scores and ELP level distributions differ between ELs taking the ACT with supports and ELs taking the ACT without supports?

2. What is the relationship between ACT performance and ELP scores? How do the relationships between ACT scores and ELP scores differ across different ACT subject areas?

3. To what extent do student characteristics account for the variance in ACT scores of ELs above and beyond their level of English proficiency?

Hypotheses

ELs are expected to have lower ACT scores than non-ELs, and ELP is expected to account for a large proportion of the variance in the ACT scores of ELs, even after we control for student characteristics.

Data Samples

The State 1 Department of Education agreed to participate in this study. State 1 is part of the WIDA consortium and has been administering the ACT to virtually all Grade 11 students since prior to the 2017–18 school year, when ACT began offering testing supports to English learners. The state provided data files for the 2017–18 to 2023–24 school years, with the exception of the 2019–20 school year where data were not available due to the COVID-19 pandemic. The files contained demographic information about its students, including gender, race/ethnicity, and whether the student was eligible for free or reduced-price lunch, which is a proxy for low family income. The state also provided student-level WIDA ACCESS data for their English learners. The state data and WIDA data were combined with ACT Grade 11 state test data and data from ACT's accommodations system. Records were excluded if they were not included in the state demographics data files or if they did not have at least one ACT section test score (English, math, reading, or science). Records of ELs were excluded if they did not have WIDA ACCESS scores.

Table 1 contains the sample sizes by school year and EL status. Approximately 2% of the sample are ELs. Nationally, approximately 7% of Grade 11 students (11% across K–12) in public schools in the US are ELs (NCES, 2024). Approximately 28% of the ELs in the study sample took the ACT with supports.

Table 1. Data Sample

School year	ELs with supports	All ELs	Non-ELs	Total
2017–18	13	74	5,707	5,781
2018–19	18	107	5,554	5,661
2020–21	24	76	5,621	5,697
2021–22	29	126	6,004	6,130
2022–23	53	116	6,091	6,207
2023–24	45	143	6,257	6,400
Total	182	642	35,234	35,876

Note. ELs with supports is a subset of *All ELs* that took the ACT with testing supports.

Table 2 contains the demographic characteristics of the data sample. There are a slightly higher percentage of male ELs (58%), while the non-EL sample has more similar percentages of male (51%) and female (49%) students. ELs are predominantly Hispanic/Latino (79% of all ELs), while non-ELs are predominantly white (81%), with 12% Hispanic/Latino students and smaller percentages of students from other race/ethnicity groups. ELs are also more likely to be eligible for free/reduced-price lunch (51%) compared to non-ELs (47%).

Table 2. Demographic Characteristics (*N* and Percentage) of Data Samples

Student characteristic	ELs with supports	All ELs	Non-ELs	Total
Female	94 (52%)	268 (42%)	17,389 (49%)	17,657 (49%)
Male	88 (48%)	374 (58%)	17,845 (51%)	18,219 (51%)
American Indian/AK Native	0 (0%)	29 (5%)	773 (2%)	802 (2%)
Asian	11 (6%)	36 (6%)	285 (1%)	321 (1%)
Black/African American	1 (1%)	7 (1%)	295 (1%)	302 (1%)
Hispanic/Latino	142 (78%)	505 (79%)	4,364 (12%)	4,869 (14%)
Native HI/Pacific Islander	2 (1%)	4 (1%)	40 (0.1%)	44 (0.1%)
Two or more races	0 (0%)	5 (1%)	922 (3%)	927 (3%)
White	26 (14%)	56 (9%)	28,555 (81%)	28,611 (80%)
Free/reduced-price lunch eligible	83 (46%)	326 (51%)	8,220 (23%)	8,546 (24%)

Course Grades Data

State 1 was unable to provide course grades data or high school GPA (HSGPA). Therefore, we examined whether ACT had sufficient self-reported data to be able to conduct analyses of relationships among ACT scores, HSGPA, and ACCESS performance. Other relevant student performance data included taking honors/AP/IB courses and number of years of coursework.

Table 3 contains the percentages of students with missing self-reported student data for variables related to student performance in high school. Overall, about one-third of students had missing HSGPA and coursework data, and ELs were much more likely to have missing HSPGA and coursework data, with over half to nearly three-quarters of students missing such data. Due to the large amount of missing data, we were unable to conduct any analyses related to HSGPA or student coursework with this study sample.

Table 3. Percentages of Students with Missing Self-Reported Student Performance Data

Variable	ELs with supports	All ELs	Non-ELs	Total
HSGPA-English	78	65	33	33
HSGPA-Math	79	65	35	36
HSGPA-Social Studies	80	67	36	37
HSGPA-Science	80	66	36	36
HSGPA-Overall	80	66	35	36
Years of Coursework-English	72	59	30	30
Years of Coursework-Math	76	60	32	33
Years of Coursework-Social Studies	76	62	33	33
Years of Coursework-Science	76	61	33	33
Advanced/Honors-English	79	71	42	42
Advanced/Honors-Math	82	72	44	44
Advanced/Honors-Social Studies	82	74	45	45
Advanced/Honors-Science	82	72	44	45

Analyses

Research Questions

1. What are the average ACCESS scores and ELP level distributions for ELs taking the ACT? To what extent do the average ACCESS scores and ELP level distributions differ between ELs taking the ACT with supports and ELs taking the ACT without supports?

Research Question 1 was answered using descriptive analyses including means and frequency distributions. Independent samples *t* tests and Cohen's *d* effect sizes were used to determine statistical significance and magnitude of differences.

2. What is the relationship between ACT performance and ELP scores? How do the relationships between ACT scores and ELP scores differ across different ACT subject areas?

Research Question 2 was answered using descriptive analyses including mean scores by ELP level and correlations. Independent samples *t* tests and Cohen's *d* effect sizes were used to determine statistical significance and magnitude of differences.

3. To what extent do student characteristics account for the variance in ACT scores of ELs above and beyond their level of English proficiency?

Research Question 3 was answered using a series of regression models to capture the change in R^2 when each set of variables are added to the model. Separate models were run predicting the ACT Composite and each section score (English, math, reading, and science). Preliminary analyses were conducted to determine whether we should focus on ACCESS Reading or one of the composite scores.

Model 1: ACT score = ACCESS score

Model 2: ACT score = ACCESS score + EL supports

Model 3: ACT score = ACCESS score + EL supports + demographics

Demographics considered for the regression models included gender, race/ethnicity, and eligibility for free or reduced-price lunch. Due to the sample sizes for most of the race/ethnicity groups in the EL group being too small to make meaningful inferences (see Table 2), we excluded race/ethnicity from the regression models. Additionally, gender was excluded from the models as preliminary analyses found that it was not a significant predictor in the models after controlling for ACCESS Reading scores, use of testing supports on the ACT, and free or reduced-price lunch eligibility. Therefore, free or reduced-price lunch eligibility was the only demographics characteristic included in Model 3.

Results

Research Question 1: What are the average ACCESS scores and ELP level distributions for ELs taking the ACT? To what extent do the average ACCESS scores and ELP level distributions differ between ELs taking the ACT with supports and ELs taking the ACT without supports?

Table 4 contains the average ACCESS scores of ELs in the study sample. Students tended to have higher scores in Listening, followed by Reading, with lower scores in Writing and the lowest scores in Speaking. Between the scores of ELs who took the ACT with supports and those of ELs who took the ACT without supports, there were statistically significant differences in Writing, Listening, Speaking, Oral Language, and Overall ACCESS scores (see Table A1 in the appendix), but the effect sizes were small (Cohen's *d* ranging from -0.02 for Reading to -0.26 for Oral Language), indicating that the two groups had similar levels of English proficiency but ELs who took the ACT without supports had slightly higher scores.

Table 4. Average ACCESS Scores (and Standard Deviations) of ELs Taking the ACT

ACCESS domain	ELs with supports	ELs without supports	All ELs
Reading	389.5 (34.3)	390.3 (32.9)	390.1 (33.3)
Writing	361.1 (40.7)	370.2 (35.5)	367.6 (37.3)
Listening	396.1 (47.2)	406.8 (45.6)	403.8 (46.3)
Speaking	329.3 (55.5)	340.5 (48.8)	337.3 (51.0)
Oral Language	362.9 (46.8)	374.0 (40.6)	370.8 (42.7)
Literacy	375.6 (33.8)	380.5 (29.3)	379.1 (30.7)
Comprehension	391.5 (35.2)	395.3 (33.4)	394.2 (34.0)
Overall	371.5 (35.5)	378.3 (30.0)	376.4 (31.8)

Table 5, Table 6, and Table 7 contain the percentages of students scoring within each ACCESS performance level for ELs who tested with supports on the ACT, ELs who tested without supports on the ACT, and all ELs combined, respectively. The *N*-counts can be found in the appendix (Table A4, Table A5, and Table A6). Most of the ELs in the study sample had Overall scores of Levels 1–4. This is because the cut score for English proficiency in State 1 is between 4.0 and 5.0 (the specific value is not reported to protect the anonymity of the state), meaning that students with Overall scores at or above the proficiency cut score would be considered proficient, or former ELs. The percentages of students at Levels 5 and 6 were higher in the domains of Reading and Listening than in the other domains. Overall, the distributions of ELP levels were similar for ELs taking the ACT with supports. A slightly greater percentage of ELs testing with supports scored at Level 1 across ACCESS domains than ELs testing without supports.

Table 5. Distribution (Percentage) of ACCESS ELP Levels for ELs Taking the ACT With Supports

ACCESS domain	Level 1: Entering	Level 2: Emerging	Level 3: Developing	Level 4: Expanding	Level 5: Bridging	Level 6: Reaching
Reading	14	24	23	10	16	13
Writing	10	17	47	24	2	0
Listening	13	7	27	23	15	15
Speaking	26	20	47	7	1	0
Oral Language	16	14	49	18	3	0
Literacy	10	22	41	21	5	1
Comprehension	13	16	29	16	15	11
Overall	12	16	48	21	3	1

Table 6. Distribution (Percentage) of ACCESS ELP Levels for ELs Taking the ACT Without Supports

ACCESS domain	Level 1: Entering	Level 2: Emerging	Level 3: Developing	Level 4: Expanding	Level 5: Bridging	Level 6: Reaching
Reading	10	30	20	10	15	15
Writing	5	11	54	28	2	0
Listening	8	8	22	25	16	22
Speaking	14	25	52	7	1	0.2
Oral Language	9	14	45	28	3	0.4
Literacy	5	16	48	26	5	0.2
Comprehension	6	24	23	14	19	14
Overall	6	13	51	26	3	0

Table 7. Distribution (Percentage) of ACCESS ELP Levels for All ELs Taking the ACT

ACCESS domain	Level 1: Entering	Level 2: Emerging	Level 3: Developing	Level 4: Expanding	Level 5: Bridging	Level 6: Reaching
Reading	12	28	21	10	15	14
Writing	7	13	52	27	2	0
Listening	9	8	23	24	16	20
Speaking	18	24	51	7	1	0.2
Oral Language	11	14	46	25	3	0.3
Literacy	6	18	46	25	5	0.3
Comprehension	8	22	25	15	18	13
Overall	8	14	50	25	3	0.2

Table 8, Table 9, and Table 10 contain correlations among the ACCESS scores and composites of ELs who took the ACT with supports, ELs who took the ACT without supports, and all ELs combined, respectively. In general, the ACCESS domains are moderately correlated, and as expected, correlations are high between the composite scores and the domains that make up that composite. Correlations are somewhat higher for ELs who took the ACT with supports compared to ELs who took the ACT without supports, with differences in correlations ranging from 0.00 for the correlation between ACCESS Reading and the ACCESS Composite to 0.20 for the correlation between ACCESS Writing and ACCESS Listening. The correlation between the ACCESS Reading and ACCESS Overall score is 0.84 across all ELs, indicating the feasibility of using the ACCESS Reading score as an indicator of English proficiency when exploring the relationship between ELP and ACT performance.

Table 8. Correlations Among ACCESS Scores of ELs Taking the ACT With Supports

ACCESS domain	Reading	Writing	Listening	Speaking	Oral	Literacy	Comprehension	Overall
Reading	1.00	—	—	—	—	—	—	—
Writing	0.62	1.00	—	—	—	—	—	—
Listening	0.68	0.62	1.00	—	—	—	—	—
Speaking	0.60	0.62	0.66	1.00	—	—	—	—
Oral Language	0.70	0.68	0.89	0.92	1.00	—	—	—
Literacy	0.88	0.92	0.71	0.68	0.76	1.00	—	—
Comprehension	0.95	0.67	0.87	0.67	0.84	0.89	1.00	—
Overall	0.86	0.88	0.83	0.82	0.90	0.97	0.92	1.00

Note. All correlations are statistically significant at $p < 0.01$.

Table 9. Correlations Among ACCESS Scores of ELs Taking the ACT Without Supports

ACCESS domain	Reading	Writing	Listening	Speaking	Oral	Literacy	Comprehension	Overall
Reading	1.00	—	—	—	—	—	—	—
Writing	0.47	1.00	—	—	—	—	—	—
Listening	0.63	0.42	1.00	—	—	—	—	—
Speaking	0.45	0.46	0.48	1.00	—	—	—	—
Oral Language	0.63	0.52	0.85	0.87	1.00	—	—	—
Literacy	0.84	0.87	0.61	0.53	0.66	1.00	—	—
Comprehension	0.95	0.50	0.84	0.51	0.78	0.83	1.00	—
Overall	0.83	0.80	0.76	0.72	0.86	0.95	0.89	1.00

Note. All correlations are statistically significant at $p < 0.01$.

Table 10. Correlations Among ACCESS Scores of All ELs Taking the ACT

ACCESS domain	Reading	Writing	Listening	Speaking	Oral	Literacy	Comprehension	Overall
Reading	1.00	—	—	—	—	—	—	—
Writing	0.51	1.00	—	—	—	—	—	—
Listening	0.64	0.49	1.00	—	—	—	—	—
Speaking	0.50	0.52	0.54	1.00	—	—	—	—
Oral Language	0.64	0.58	0.86	0.89	1.00	—	—	—
Literacy	0.85	0.89	0.65	0.59	0.70	1.00	—	—
Comprehension	0.95	0.55	0.85	0.56	0.80	0.85	1.00	—
Overall	0.84	0.83	0.78	0.76	0.88	0.96	0.90	1.00

Note. All correlations are statistically significant at $p < 0.01$.

Research Question 2: What is the relationship between ACT performance and ELP scores? How do the relationships between ACT scores and ELP scores differ across different ACT subject areas?

Table 11 contains the average ACT scores of ELs and non-ELs in the study sample. ELs scored significantly lower than non-ELs across all test sections and the Composite score (see Table A2 in the appendix), with large effect sizes (Cohen's *d* ranged from -0.89 in math to -1.15 for the Composite score). ELs who took the ACT with supports had similar scores compared to ELs who took the ACT without supports, and there were no significant differences in scores across the test sections or Composite (see Table A3 in the appendix). There were also large differences in the standard deviations of the ACT scores of ELs compared to those of non-ELs across all test sections and the Composite score; for example, the standard deviation of the Composite scores was 2.1 for all ELs and 4.9 for non-ELs. ELs who tested with supports and ELs who tested without supports had similar standard deviations.

Table 11. Average ACT Scores (and Standard Deviations) of ELs and Non-ELs Taking the ACT

ACT subject	ELs with supports	ELs without supports	All ELs	Non-ELs
English	11.6 (2.5)	11.6 (2.7)	11.6 (2.6)	18.1 (5.8)
Math	14.9 (2.5)	14.6 (2.3)	14.7 (2.4)	18.9 (4.8)
Reading	13.2 (2.9)	13.2 (3.2)	13.2 (3.1)	19.8 (6.1)
Science	14.5 (3.1)	14.5 (3.0)	14.5 (3.0)	19.5 (5.0)
Composite	13.7 (2.0)	13.6 (2.1)	13.6 (2.1)	19.2 (4.9)

Table 12, Table 13, and Table 14 contain correlations between ACT scores and ACCESS scores of ELs who took the ACT with supports, ELs who took the ACT without supports, and all ELs combined, respectively. Across ACT subjects and the Composite score, the highest correlations are with ACCESS Reading and ACCESS Comprehension (a composite of 70% Reading and 30% Listening). This makes logical sense because the ACT requires reading skills to a greater extent than it does listening, speaking, or writing (with the exception of the ACT writing test, which was not considered in this study) to be able to access test content.

Table 12. Correlations Between ACT Scores and ACCESS Scores for ELs Taking the ACT With Supports

ACCESS domain	ACT English	ACT math	ACT reading	ACT science	ACT Composite
Reading	0.54	0.43	0.47	0.43	0.62
Writing	0.29	0.29	0.26	0.30	0.38
Listening	0.38	0.41	0.33	0.36	0.50
Speaking	0.33	0.25	0.31	0.24	0.37
Oral Language	0.38	0.36	0.35	0.33	0.47
Literacy	0.45	0.39	0.40	0.40	0.54
Comprehension	0.52	0.46	0.45	0.43	0.63
Overall	0.45	0.40	0.40	0.39	0.55

Note. All correlations are statistically significant at $p < 0.01$.

Comparing ELs who took the ACT with supports (Table 12) to ELs who took the ACT without supports (Table 13), correlations between ACT scores and ACCESS scores tended to be higher for ELs who took the ACT with supports, ranging from 0.01 (ACT reading and ACCESS Listening) to 0.16 (ACT English and ACCESS Speaking).

Table 13. Correlations Between ACT Scores and ACCESS Scores for ELs Taking the ACT Without Supports

ACCESS domain	ACT English	ACT math	ACT reading	ACT science	ACT Composite
Reading	0.42	0.35	0.39	0.33	0.49
Writing	0.26	0.18	0.21	0.16	0.28
Listening	0.34	0.32	0.32	0.28	0.42
Speaking	0.17	0.13	0.21	0.18	0.23
Oral Language	0.30	0.26	0.31	0.27	0.38
Literacy	0.40	0.31	0.35	0.28	0.44
Comprehension	0.43	0.37	0.40	0.34	0.51
Overall	0.39	0.32	0.36	0.30	0.46

Note. All correlations are statistically significant at $p < 0.01$.

Table 14. Correlations Between ACT Scores and ACCESS Scores for All ELs Taking the ACT

ACCESS domain	ACT English	ACT math	ACT reading	ACT science	ACT Composite
Reading	0.45	0.37	0.41	0.36	0.53
Writing	0.27	0.21	0.23	0.20	0.30
Listening	0.35	0.34	0.32	0.30	0.43
Speaking	0.22	0.17	0.24	0.20	0.27
Oral Language	0.32	0.28	0.32	0.28	0.40
Literacy	0.41	0.33	0.36	0.32	0.47
Comprehension	0.45	0.40	0.41	0.37	0.54
Overall	0.40	0.34	0.37	0.33	0.48

Note. All correlations are statistically significant at $p < 0.01$.

Taking into account that reading is the more relevant skill required for accessing test content on the ACT than the other domains, that there are moderate to high correlations among the ACCESS domain and composite scores, and in order to examine students across the full distribution of Levels 1–6 for the analyses in this study, the rest of this paper focused on ACCESS Reading scores as the primary measure of English proficiency.

Table 16 and Table 17 contain the average ACT scores by ACCESS Reading level for ELs who took the ACT with supports, ELs who took the ACT without supports, and all ELs in the study sample. Standard deviations are also provided. Across EL groups and across subjects and the Composite score, as English proficiency level increases, ACT performance increases.

Table 15. Average ACT Scores (and Standard Deviations) by ACCESS Reading Level for ELs Taking the ACT With Supports

ACT subject	Level 1: Entering	Level 2: Emerging	Level 3: Developing	Level 4: Expanding	Level 5: Bridging	Level 6: Reaching
English	10.1 (1.3)	10.5 (1.6)	11.3 (2.0)	11.5 (2.6)	12.7 (2.0)	14.6 (3.0)
Math	13.5 (1.4)	14.3 (2.0)	14.8 (1.9)	14.9 (1.8)	15.3 (2.8)	17.2 (3.7)
Reading	11.9 (1.5)	11.9 (1.4)	12.5 (2.5)	13.7 (3.4)	14.9 (3.5)	15.7 (2.7)
Science	13.2 (2.0)	13.5 (2.5)	14.2 (3.0)	14.4 (3.0)	15.7 (3.1)	17.4 (3.1)
Composite	12.3 (0.9)	12.7 (1.0)	13.3 (1.6)	13.6 (1.9)	14.8 (2.0)	16.4 (2.1)

Comparing the average ACT scores by ACCESS Reading level for ELs who took the ACT with supports (Table 15) to those of ELs who took the ACT without supports (Table 16), there were some differences in performance. ELs who took the ACT with supports and scored at ACCESS Reading Level 6 had ACT English, math, science, and Composite scores about one score point higher than ELs at ACCESS Reading Level 6 who took the ACT without supports; Cohen's *d* effect size values ranged from 0.28 for math to 0.37 for science, although none of the differences were statistically significant given the small sample sizes when disaggregating by ACCESS level (see Table A7 in the appendix). For the ACT reading test, the largest difference (1.3 points, with an effect size of 0.43, but also non-significant due to small sample size, see

Table A7 in the appendix) was found when comparing ELs with ACCESS Reading scores at Level 4.

Table 16. Average ACT Scores (and Standard Deviations) by ACCESS Reading Level for ELs Taking the ACT Without Supports

ACT subject	Level 1: Entering	Level 2: Emerging	Level 3: Developing	Level 4: Expanding	Level 5: Bridging	Level 6: Reaching
English	10.3 (2.0)	10.8 (2.0)	11.0 (2.0)	11.4 (2.4)	12.8 (2.9)	13.6 (3.2)
Math	13.9 (1.3)	14.0 (1.7)	14.1 (1.9)	14.5 (2.7)	15.4 (2.2)	16.3 (3.0)
Reading	11.7 (2.2)	12.2 (2.4)	13.1 (3.1)	12.4 (2.9)	14.2 (3.0)	15.7 (3.7)
Science	13.3 (2.8)	13.6 (2.7)	14.2 (2.7)	14.8 (3.3)	15.2 (2.8)	16.2 (3.3)
Composite	12.4 (1.2)	12.8 (1.5)	13.2 (1.6)	13.4 (2.1)	14.6 (2.0)	15.5 (2.6)

Table 17. Average ACT Scores (and Standard Deviations) by ACCESS Reading Level for All ELs Taking the ACT

ACT subject	Level 1: Entering	Level 2: Emerging	Level 3: Developing	Level 4: Expanding	Level 5: Bridging	Level 6: Reaching
English	10.3 (1.8)	10.7 (1.9)	11.1 (2.0)	11.4 (2.4)	12.8 (2.7)	13.8 (3.2)
Math	13.8 (1.4)	14.1 (1.8)	14.3 (1.9)	14.6 (2.5)	15.3 (2.4)	16.5 (3.2)
Reading	11.8 (2.0)	12.2 (2.2)	12.9 (2.9)	12.8 (3.1)	14.4 (3.2)	15.7 (3.5)
Science	13.3 (2.5)	13.6 (2.7)	14.2 (2.8)	14.7 (3.2)	15.4 (2.9)	16.5 (3.3)
Composite	12.4 (1.1)	12.8 (1.4)	13.3 (1.6)	13.5 (2.0)	14.6 (2.0)	15.7 (2.5)

Research Question 3: To what extent do student characteristics account for the variance in ACT scores of ELs above and beyond their level of English proficiency?

Table 18 contains the results of a series of regression models predicting the ACT Composite score of ELs and Table 19 through Table 22 contain the same series of models predicting ACT English, math, reading, and science scores. Model 1 predicts ACT scores from ACCESS Reading scores, Model 2 adds an indicator for whether students took the ACT with testing supports, and Model 3 adds an indicator for free/reduced-price lunch eligibility.

ACCESS Reading scores were significant predictors of the ACT Composite score and all four test sections. Examining the R^2 values across models, ACCESS Reading scores accounted for 13% (predicting ACT science) to 28% (predicting the ACT Composite score) of the variance in ACT scores. Taking the ACT with testing supports was not a significant predictor for any of the models; although the coefficients are all positive, the sample sizes are likely too small to provide a significant effect (there were 642 ELs total in the sample, and only 182 ELs who took the ACT with supports). It should also be noted that the indicator for taking the ACT with supports is based on whether students were approved to take the test with supports, but ACT did not collect information about whether the supports were actually used while taking the test, meaning that the effects of the supports could be underestimated if students who did not use the supports

were included in the group identified as having tested with supports. Free and reduced-price lunch eligibility was also a non-significant predictor in all the models except for the model predicting ACT math performance.

Table 18. Results of Regression Analysis Predicting ACT Composite Score

Variable	Model 1		Model 2		Model 3	
	β	*SE*	β	*SE*	β	*SE*
Intercept	0.78^{ns}	0.82	0.74^{ns}	0.82	0.98^{ns}	0.84
ACCESS Reading score	0.03***	0.00	0.03***	0.00	0.03***	0.00
EL with supports	—	—	0.12^{ns}	0.15	0.11^{ns}	0.15
Free/reduced-price lunch eligible	—	—	—	—	-0.22^{ns}	0.14
Adjusted R^2	—	.28	—	.28	—	.28

Note. *** indicates statistical significance at $p < 0.0001$. ^{ns} indicates not significant.

Table 19. Results of Regression Analysis Predicting ACT English Score

Variable	Model 1		Model 2		Model 3	
	β	*SE*	β	*SE*	β	*SE*
Intercept	-2.23*	1.07	-2.26*	1.08	-2.02^{ns}	1.10
ACCESS Reading score	0.04***	0.00	0.04***	0.00	0.04***	0.00
EL with supports	—	—	0.08^{ns}	0.20	0.06^{ns}	0.20
Free/reduced-price lunch eligible	—	—	—	—	-0.22^{ns}	0.18
Adjusted R^2	—	.21	—	.20	—	.20

Note. *** indicates statistical significance at $p < 0.0001$. * indicates statistical significance at $p < 0.01$. ^{ns} indicates not significant.

Table 20. Results of Regression Analysis Predicting ACT Math Score

Variable	Model 1		Model 2		Model 3	
	β	*SE*	β	*SE*	β	*SE*
Intercept	4.32***	1.02	4.23***	1.02	4.70***	1.04
ACCESS Reading score	0.03***	0.00	0.03***	0.00	0.03***	0.00
EL with supports	—	—	0.27^{ns}	0.19	0.24^{ns}	0.19
Free/reduced-price lunch eligible	—	—	—	—	-0.42*	0.17
Adjusted R^2	—	.14	—	.14	—	.15

Note. *** indicates statistical significance at $p < 0.0001$. ^{ns} indicates not significant.

Table 21. Results of Regression Analysis Predicting ACT Reading Score

Variable	Model 1		Model 2		Model 3	
	β	*SE*	β	*SE*	β	*SE*
Intercept	-1.48^{ns}	1.31	-1.49^{ns}	1.31	-1.40^{ns}	1.33
ACCESS Reading score	0.04***	0.00	0.04***	0.00	0.04***	0.00
EL with supports	—	—	0.01^{ns}	0.25	0.01^{ns}	0.25
Free/reduced-price lunch eligible	—	—	—	—	-0.07^{ns}	0.22
Adjusted R^2	—	.16	—	.16	—	.16

Note. *** indicates statistical significance at $p < 0.0001$. ^{ns} indicates not significant.

Table 22. Results of Regression Analysis Predicting ACT Science Score

Variable	Model 1		Model 2		Model 3	
	β	*SE*	β	*SE*	β	*SE*
Intercept	1.76^{ns}	1.32	1.72^{ns}	1.32	1.93^{ns}	1.34
ACCESS Reading Score	0.03***	0.00	0.03***	0.00	0.03***	0.00
EL with supports	—	—	0.10^{ns}	0.25	0.09^{ns}	0.25
Free/reduced-price lunch eligible	—	—	—	—	-0.18^{ns}	0.23
Adjusted R^2	—	.13	—	.13	—	.13

Note. *** indicates statistical significance at $p < 0.0001$. ^{ns} indicates not significant.

Discussion

This study examined relationships between English proficiency and performance on the ACT for English learners (ELs) in a U.S. state. The data sample included ELs who took both WIDA ACCESS English proficiency assessments and the ACT in Grade 11 during the 2017–18 to 2023–24 school years (except for the 2019–20 school year), and non-ELs who took the ACT in Grade 11 during the same time period. ELs tended to have lower ACT scores than non-ELs across all subjects and the Composite score, which was expected based on previous research (Moore, 2021; Moore et al., 2021). A strong relationship was found between ACCESS Reading scores and ACT scores, such that ACT performance across all test sections and the Composite score increased as reading proficiency increased, and regression analyses showed that this relationship held when controlling for student demographics and whether students took the ACT with testing supports.

In this study sample, ELs who took the ACT with supports (e.g., extra time, word-to-word bilingual dictionaries) had similar ACT scores to ELs who took the ACT without supports, and in the regression models, EL supports were not a significant predictor of performance on the ACT. Free and reduced-price lunch eligibility was also not a significant predictor after controlling for reading proficiency. Both of these results were surprising. Similar analyses for a second U.S. state found significant effects of both EL supports and free and reduced-price lunch eligibility after controlling for reading proficiency (Moore et al., 2026). For both predictors, the relationships were in the direction expected, and the free and reduced lunch eligibility indicator had a similar magnitude of effect as the findings for the other state, suggesting that there could

be an effect but the sample size for this state was too small to statistically detect an effect. It is also possible that differences in populations, resources or services offered to ELs, or other factors could influence the contribution of the EL supports across the two states studied.

Limitations

This study sample included a single U.S. state with a relatively small sample size and small EL population, and may not generalize to the entire U.S. population or to other states. We were unable to obtain student-level high school GPA to use as a covariate in the regression models, and there could be unobserved differences in students' academic background that could affect their ACT performance. We also did not have information about the types of resources and services available to ELs that could also affect both their English language acquisition and learning of academic content. Additionally, ACT had data indicating which ELs had been approved to use testing supports when taking the ACT, but did not collect information about whether the supports were actually used. As such, we do not know how different the two groups were in terms of support use. Future research should replicate this study with additional populations and, if possible, include additional data that may help disentangle the extent to which the lower performance of ELs is due to limited English proficiency or to lack of content knowledge.

Conclusion

This study found that ACCESS Reading scores are a significant predictor of performance on the ACT. A parallel study in a second state showed similar findings, and the two studies together indicate that English proficiency levels of ELs should be taken into consideration when interpreting the ACT scores of ELs, as limited English proficiency may be introducing construct-irrelevant variance in the scores. In particular, caution should be exercised when drawing conclusions about the knowledge and skills of ELs with the lowest levels of English proficiency.

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Appendix

Table A1. Results of Independent Samples *t* Tests Comparing ACCESS Scores of ELs Taking the ACT With or Without Supports

ACCESS domain	ELs with supports	ELs without supports	*t*	*df*	*p*	Cohen's *d*
Reading	389.5 (34.3)	390.3 (32.9)	–0.27	320.3	0.780	–0.02
Writing	361.1 (40.7)	370.2 (35.5)	–2.63	296.2	0.009	–0.24
Listening	396.1 (47.2)	406.8 (45.6)	–2.63	322.1	0.009	–0.23
Speaking	329.3 (55.5)	340.5 (48.8)	–2.40	297.4	0.017	–0.22
Oral Language	362.9 (46.8)	374.0 (40.6)	–2.80	294.3	0.005	–0.26
Literacy	375.6 (33.8)	380.5 (29.3)	–1.71	294.5	0.088	–0.16
Comprehension	391.5 (35.2)	395.3 (33.4)	–1.25	317.3	0.211	–0.11
Overall	371.5 (35.5)	378.3 (30.0)	–2.27	288.6	0.024	–0.21

Table A2. Results of Independent Samples *t* Tests Comparing ACT Scores of ELs and Non-ELs Taking the ACT

ACT subject	All ELs	Non-ELs	*t*	*df*	*p*	Cohen's *d*
English	11.6 (2.6)	18.1 (5.8)	–60.68	764.1	0.000	–1.12
Math	14.7 (2.4)	18.9 (4.8)	–43.38	739.4	0.000	–0.89
Reading	13.2 (3.1)	19.8 (6.1)	–52.62	736.6	0.000	–1.09
Science	14.5 (3.0)	19.5 (5.0)	–40.89	705.4	0.000	–1.01
Composite	13.6 (2.1)	19.2 (4.9)	–64.92	776.8	0.000	–1.15

Table A3. Results of Independent Samples *t* Tests Comparing ACT Scores of ELs Taking the ACT With or Without Supports

ACT subject	ELs with Supports	ELs without Supports	*t*	*df*	*p*	Cohen's *d*
English	11.6 (2.5)	11.6 (2.7)	0.22	358.0	0.827	0.02
Math	14.9 (2.5)	14.6 (2.3)	1.16	311.4	0.246	0.11
Reading	13.2 (2.9)	13.2 (3.2)	–0.07	364.8	0.946	–0.01
Science	14.5 (3.1)	14.5 (3.0)	0.28	327.0	0.778	0.02
Composite	13.7 (2.0)	13.6 (2.1)	0.53	345.1	0.593	0.05

Table A4. Distribution (Counts) of ACCESS ELP Levels for ELs Taking the ACT With Supports

ACCESS domain	Level 1: Entering	Level 2: Emerging	Level 3: Developing	Level 4: Expanding	Level 5: Bridging	Level 6: Reaching
Reading	26	44	41	19	29	23
Writing	18	31	86	44	3	0
Listening	24	12	50	41	28	27
Speaking	47	37	85	12	1	0
Oral Language	29	26	89	33	5	0
Literacy	18	40	74	39	10	1
Comprehension	23	29	53	30	27	20
Overall	21	30	87	38	5	1

Table A5. Distribution (Counts) of ACCESS ELP Levels for ELs Taking the ACT Without Supports

ACCESS domain	Level 1: Entering	Level 2: Emerging	Level 3: Developing	Level 4: Expanding	Level 5: Bridging	Level 6: Reaching
Reading	48	136	92	45	69	70
Writing	24	51	250	128	7	0
Listening	35	37	99	116	72	101
Speaking	66	115	241	33	4	1
Oral Language	42	66	207	130	13	2
Literacy	23	73	223	119	21	1
Comprehension	27	109	106	66	87	65
Overall	28	62	236	120	14	0

Table A6. Distribution (Counts) of ACCESS ELP Levels for All ELs Taking the ACT

ACCESS domain	Level 1: Entering	Level 2: Emerging	Level 3: Developing	Level 4: Expanding	Level 5: Bridging	Level 6: Reaching
Reading	74	180	133	64	98	93
Writing	42	82	336	172	10	0
Listening	59	49	149	157	100	128
Speaking	113	152	326	45	5	1
Oral Language	71	92	296	163	18	2
Literacy	41	113	297	158	31	2
Comprehension	50	138	159	96	114	85
Overall	49	92	323	158	19	1

Table A7. Results of Independent Samples *t* Tests Comparing ACT Scores of ELs Taking the ACT With or Without Supports by ACCESS Reading Level

ACT subject	ACCESS reading level	ELs with supports	ELs without supports	*t*	*df*	*p*	Cohen's *d*
English	6	14.6 (3.0)	13.6 (3.2)	1.29	39.4	0.205	0.30
Math	6	17.2 (3.7)	16.3 (3.0)	1.04	32.2	0.308	0.28
Science	6	17.4 (3.1)	16.2 (3.3)	1.56	39.1	0.127	0.37
Composite	6	16.4 (2.1)	15.5 (2.6)	1.64	46.1	0.109	0.35
Reading	4	13.7 (3.4)	12.4 (2.9)	1.47	29.4	0.153	0.43

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