

# **SPARC and WIDA ACCESS Report**

Understanding the Relationship  
between the Joy School English SPARC  
Score and Educational Outcomes,  
Gadsden Independent School District,  
New Mexico

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# Executive Summary

The SPARC score is a language learning assessment tool developed by Alegria Learning, and is a central part of how teachers and students can gauge student progress using the Joy School English software program.

This assessment, independently conducted by Socio (a team of academic researchers at Brigham Young University), establishes the correlation between student scores on SPARC and their relationship with WIDA ACCESS scores using data from the Gadsden Independent School District in New Mexico.

## 4 Key Findings

1. The correlation between the SPARC score (measured in 2024) and the ACCESS overall scale score (measured in 2025) is **remarkably high at .65** and for ideal users (those who use the software 45-90 minutes a week), the correlation is even higher at **.77**.
  - *This suggests that the SPARC score is an excellent diagnostic tool for understanding a student's skill level on state assessments.*
2. The relationship between the SPARC score and ACCESS scores **varies by ACCESS subtests**. Correlations are higher on ACCESS assessments using scale scores than proficiency levels.
  - *This suggests that the SPARC score is sensitive to how state assessments are calibrated.*
3. Students in the 1st and 2nd grade cluster had **higher correlations** between SPARC (2024) and ACCESS (2025) scores (.56) compared to kindergarten users (.30).
  - *This suggests that the 1st-2nd grade cluster is an age where SPARC scores are better calibrated to ACCESS assessments than kindergarten users.*
4. The total number of minutes a student uses Joy School English is associated with growth in ACCESS scores at **.38**, one year later. This correlation improves to **.45** when isolating 1st and 2nd grade users.
  - *This suggests that exposure to the Joy School English software significantly improves language, reading, writing and related skills on district administered assessments.*

## Data and Measures

In April 2025, Alegra Learning secured access to 2023-2025 district data for Gadsden Independent School District students in New Mexico. Gadsden Independent School District (GISD) data has 493 K-3rd grade Joy School students from school years 2023-2025. Only students with both SPARC scores and ACCESS scores were included in the analyses.

Of the 493 students, 48% are male, 80% Latino, with 25% of students using the software at an ideal range per week. Given the different learning environments, SPED students were dropped from the analyses. All students in the data are classified as EL.

The SPARC score was created using the following approach from user data: Attempt Factor \* (Confidence Score + Progress Score + Difficulty Score). SPARC uses these four categories as a benchmark indicator for student's proficiency relative to their peers. Our measure of time use is recorded in minutes.

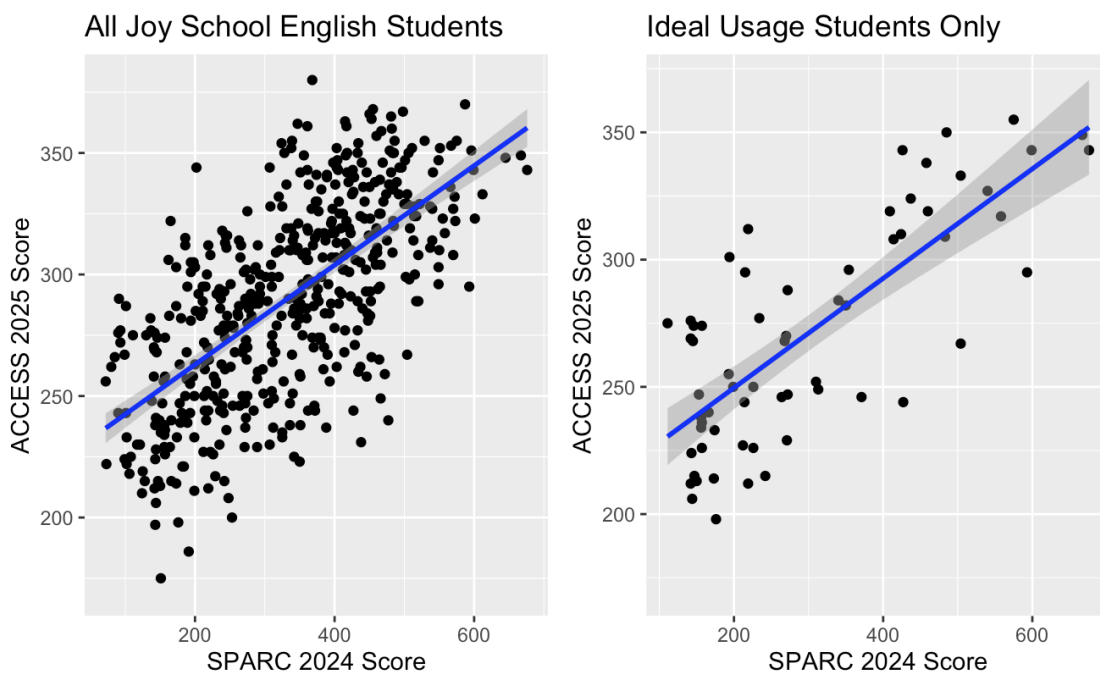
ACCESS scores are determined through both automated and human scoring. Scale scores consider item difficulty and range from 100 to 600. Proficiency scores are an interpretation of these scale scores, providing a range from 1.0 to 6.0 which indicates the student's proficiency in WIDA English language proficiency levels (see [wida.wisc.edu](https://wida.wisc.edu)).

The ACCESS score measures listening, speaking, reading, and writing. These scores are then used to formulate overall measures of proficiency: comprehension, literacy, and oral levels. The ACCESS score also has an Overall Score (overall proficiency in the four language domains of listening, speaking, reading and writing).

## Are SPARC Scores Correlated with WIDA's ACCESS Scores?

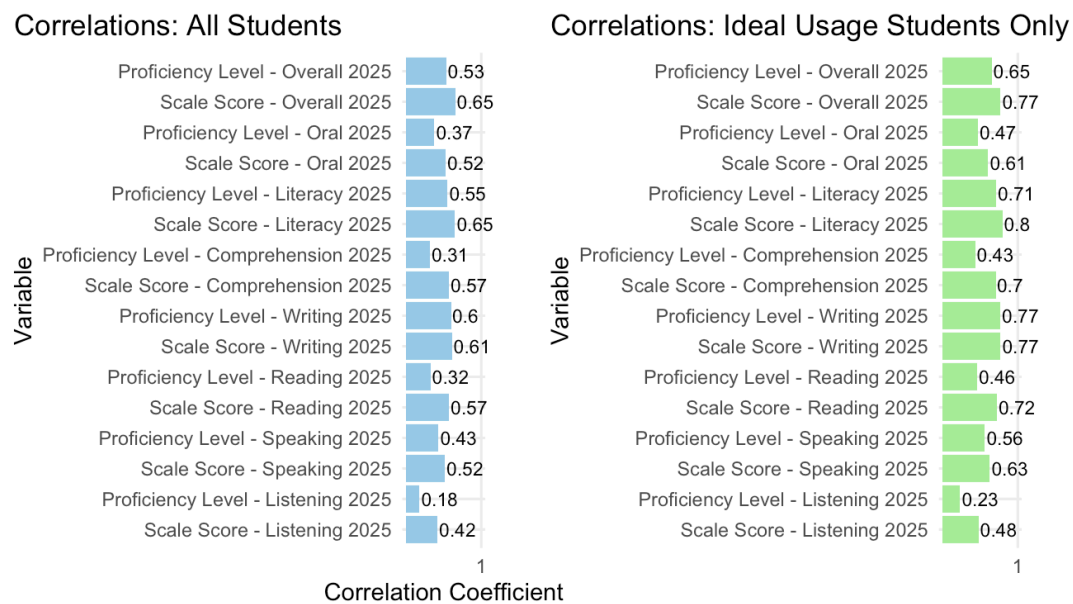
SPARC scores were collected in May of 2024 and the ACCESS Overall Scale Score in February of 2025. Correlations are reported in Figure 1. In Figure 1, correlations for all students are reported on the left (n=493) and students who were “ideal users” on the right (n=63). Ideal student time use ranges from 45-90 minutes a week. Note, as a rule of thumb, correlations of 0.0 to 0.3 are considered weak, 0.3 to 0.5 are considered moderate, 0.5 to 0.8 are considered strong, and 0.8 to 1.0 are very strong. (see [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/)) We find both groups are strongly correlated with the access exam, with correlations of 0.65 for all students and 0.77 for ideal usage students.

Figure 1: *Correlation between SPARC and ACCESS Scores by All Students and Ideal Usage Students, GISD Data (2025).*



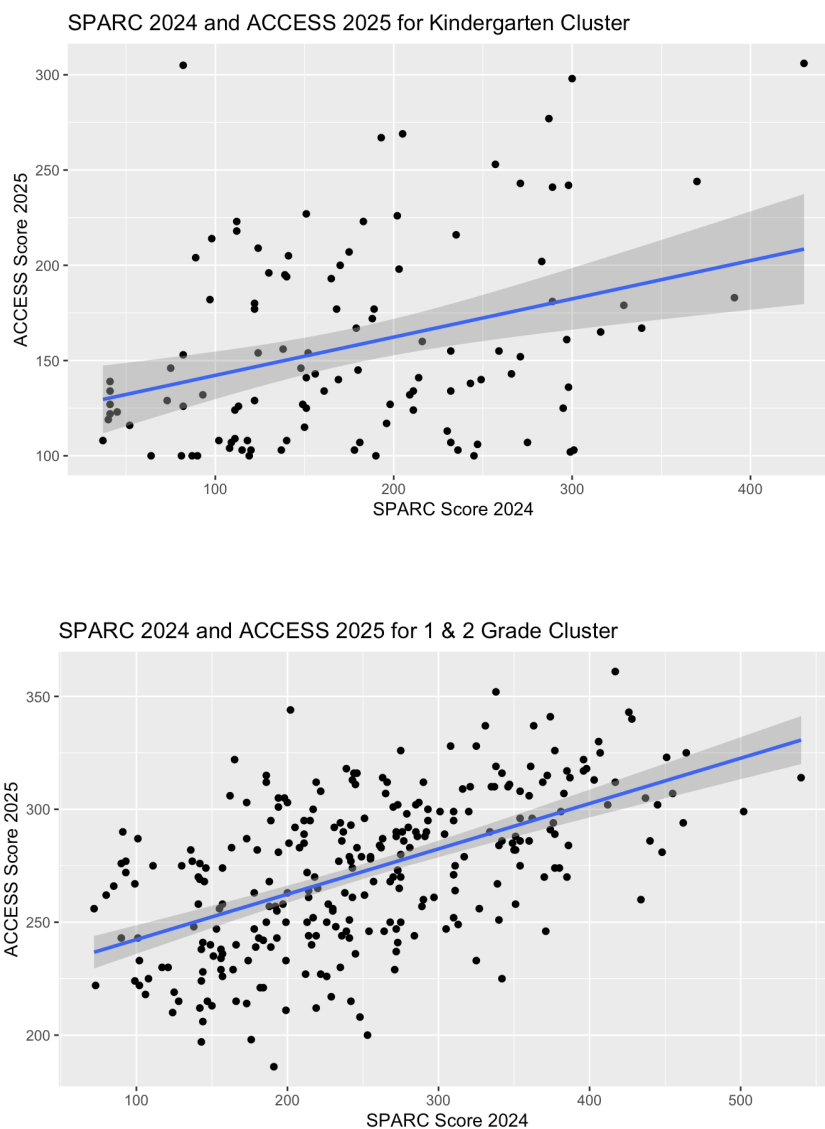
In Figure 2, we calculate the correlation between all ACCESS score categories with SPARC scores. We find important variations 1. by subscores and 2. by comparing all students with ideal usage students. For example, we find that the scale score for Reading (2025) is .57 for all users (a moderate to strong correlation), and this increases to a strong correlation of .72 for ideal usage users.

Figure 2: Correlation between SPARC and ACCESS Score and Subscores, GISD Data (2025).



Because the ACCESS exam varies by age groups, we analyzed correlations by testing clusters (see Figure 3). The kindergarten cluster and the grade 1 and 2 cluster yielded different correlations between the SPARC and ACCESS scores. For students in the kindergarten cluster, the correlation was .30. Students in the 1 & 2 cluster of testing had a higher correlation coefficient of .56. Note that students in 3rd grade were tested in a grade 3-5 cluster. Because we are missing data on 4th and 5th graders, this group was not analyzed.

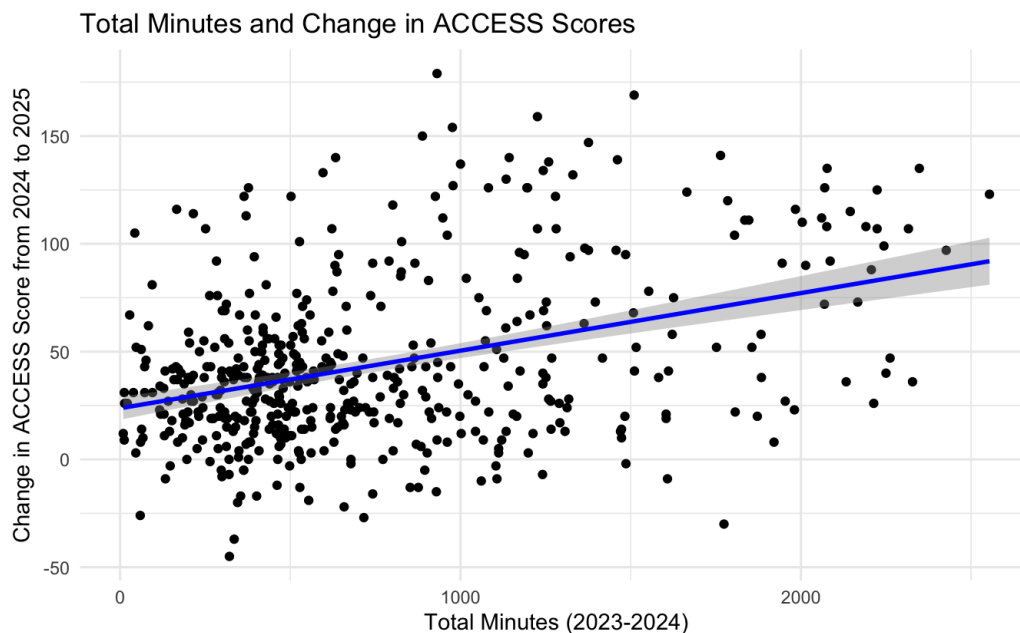
Figure 3: *Correlation between SPARC and ACCESS Score by Testing Cluster, GISD Data (2025).*



## Is Joy School English exposure (minutes using software) associated with growth in ACCESS scores?

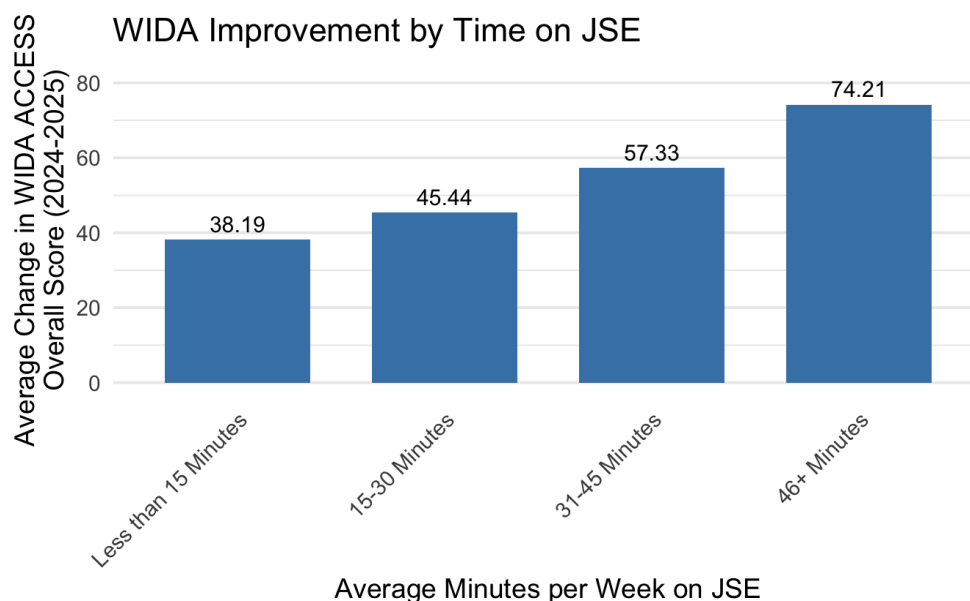
Another way to assess the relationship between a student's use of Joy School English software and ACCESS scores is to examine how exposure to the software (measured in minutes) is associated with the growth in ACCESS assessments one year later. In Figure 4, the correlation between total minutes on the Joy School English software during the 2023-2024 school year and change in ACCESS scores between February 2024 and February 2025 is 0.38 (a moderate correlation) that improves to relatively strong correlation when examining 1st and 2nd grade users. This is the most rigorous form of causal assessment available without randomization of software use.

Figure 4: *Correlation between Change in ACCESS scores (2024-2025) and Total Minutes on Joy School English Software (2023-2024)*



Additionally, growth on ACCESS performance and minutes on Joy School English can be understood by examining different levels of engagement with the program. Figure 5 displays usage data in bins of 15 minutes per week to show the improvement in ACCESS scores from 2024 to 2025. The difference in growth from the lowest and highest category is almost one full standard deviation (0.91), a large difference.

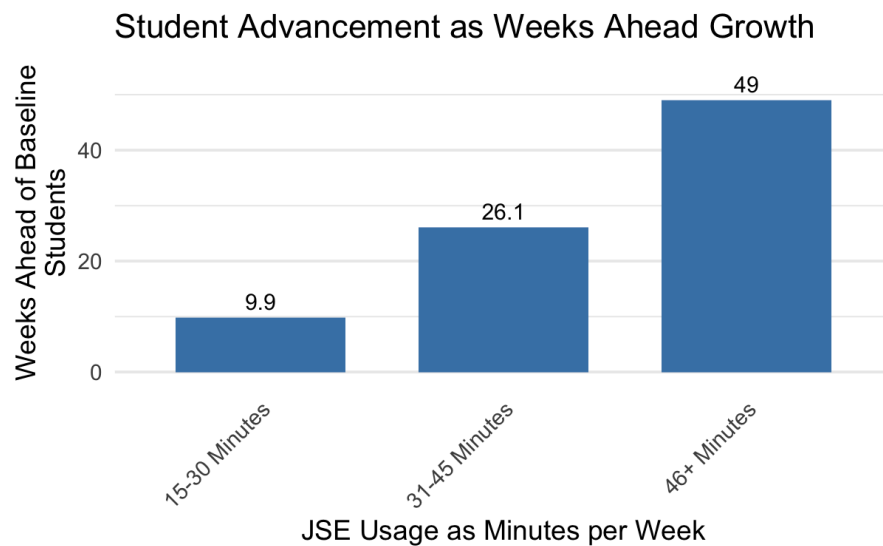
Figure 5: WIDA ACCESS Overall Scale Score Growth (2024-2025) Binned by Time per Week on Joy School English



To better understand the advantage that ideal usage students have we looked at their advancement in terms of weeks of development, as shown in Figure 6. Because we do not have “non-users” in the data, we will use the “less than 15 min” group of students as a benchmark for typical student growth over the year without software usage. By this calibration, students using the software 15-30 min are about 10 weeks (9.87) ahead of “non-users”, students using the software 31-45 min are about 25 weeks (26.06) ahead of “non-users”, and students using the software 46+ min are almost 50 weeks (49.05) ahead of “non-users.” We should note, few students use the program for 46+ minutes and may represent a slightly different student profile (more home support, more financial resources, higher motivation to learn English) in unknown ways with the GISD data.



Figure 6: *Student Advancement as Weeks Ahead Growth for WIDA ACCESS Score Changes from 2024-2025 GISD*



Overall, these differences represent large gains in ACCESS proficiency by exposure to the Joy School English software over the course of a school year.

## Conclusion

In our assessment, the SPARC score has proven to be a reliable and valid assessment of student language proficiency as demonstrated by its strong correlation with ACCESS scores in the Gadsden Independent School District. The highest correlations with ACCESS scores were observed among students who used the Joy School English software for 45–90 minutes per week, indicating that the SPARC score is especially effective when paired with consistent engagement.

Generally, these findings support the SPARC score as a valuable diagnostic tool, particularly for early elementary students. Correlations were highest among 1st and 2nd grade users, suggesting that SPARC is well-calibrated for this age group.

Most importantly, increased usage of Joy School English was associated with measurable gains in ACCESS scores one year later, reinforcing the educational benefits of the program. Taken together, these results underscore the effectiveness of SPARC and Joy School English as important tools for supporting language development and academic achievement. Further examination of Joy School English software 1. in different contexts, 2. at different ages and 3. (where possible) using experimental design will only further demonstrate its efficacy.