

More than words: Examining cross-disciplinary academic language skills that support middle graders to comprehend what they read

What this research was about and why it is important

Supporting students' ability to read and comprehend texts is one of the main goals of English language arts instruction in elementary and middle school. Certain skills that contribute to reading comprehension are easily described, understood, and measured, such as the ability to sound out words or the size of a student's vocabulary. Other skills are somewhat harder to identify and measure. One such skill that is believed to contribute to reading comprehension is academic language. Until recently, academic language was a vaguely understood skill with no validated assessments to measure students' knowledge of academic language. In fact, there has yet to be full agreement on whether academic language is one skill or a variety of different skills. This assortment of skills includes things like the ability to order sentence in a logical sequence, identify the different ways to communicate inside and outside of school, the ability to determine which agent a pronoun is referring to, among others. In this study, the researchers set out to create a concrete definition of a set of academic language skills that would be related to text understanding of students in Grades 4 through 8 in order to create a test to measure these skills. The researchers also wanted to see if students who do well on the assessment also do well on reading comprehension and if students in higher grades do better on the assessment compared to students in lower grades.

What the researchers did

- The researchers tested over 7,000 students in Grades 4 through 8 in schools in the United States. The students included both native English speakers and English proficient nonnative speakers of English, all enrolled in the same schools.
- The researchers used their test, the Core Academic Language Skills Inventory (CAL-S-I), to measure the students' academic language skills.
- They then used the Global Integrated Scenario-Based Assessment (GISA), a reading comprehension test, to measure the students' reading comprehension.
- Using this large dataset from two tests, the researchers designed a series of statistical models to determine how academic skills related to reading comprehension.

What the researchers found

- The researchers found that the academic language—as measured by the subtests in their assessment—was one large overarching skill, but that this skill was made up of several, distinct subskills, such as the ability to distinguish between child- and adult-friendly definitions of the same word.
- The researchers also found that those students who got high scores on the CAL-S-I also got high scores on the GISA, meaning that there was a fairly strong relationship between academic skills and reading comprehension.
- Finally, the researchers showed that the students in higher grades did have higher performances on the CAL-S-I test compared to students in lower grades.
- The researchers were cautiously optimistic that they successfully identified a set of related academic language skills that support middle graders' reading comprehension and that they developed a reliable test to measure these skills.

Things to consider

- Because academic language skills seem to be related to reading comprehension and seem to improve as students advance in their schooling, these results might suggest that improving these academic language skills could help students improve their reading comprehension skills.
- Additionally, teachers could use the developed test of academic language skills (CAL-S-I) to identify students who have low levels of these academic language skills and to work with these students to improve these specific skills.

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