Academic Language Across Content Areas: Lessons From an Innovative Assessment and From Students' Reflections About Language

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Academic language instruction hinges on teaching specific language to understand complex texts but also requires building on students' existing language.

In the United States, schools are becoming increasingly diverse. Large proportions of students speak a language other than English at home, and a considerable number of monolingual students learn to use English at home in ways that differ from those typically valued at school. Unquestionably, teachers must prepare all students to become proficient in the language required to learn from school texts. Yet, educators' roles need to go beyond this (Ladson-Billings, 2014). Valuing students' home culture and language resources is, first, a foundation for empathic and respectful teaching and engaged learning. Moreover, supporting students' understanding of language use as flexible across contexts is essential to support their academic language development while leveraging their resources to become the linguistic and cultural straddlers that the world needs today. Indeed, so-called cultural and linguistic straddlers, with their multiple cultural frameworks and language resources, have the potential to communicate more effectively across groups in a diverse democracy and are desirable job candidates in today's global economy (Carter, 2006; Paris & Alim, 2014)

With an interest in promoting educational equity, our research focuses on identifying so-called academic language skills. However, we place a particular focus on understanding and building on students' existing language resources. As a matter of equity, we focus on academic language skills because they are crucial for supporting students' independent learning from text in school and beyond. Fostering independent learning has never been more important in schools given that today's learners need to update their knowledge constantly to be prepared for an uncertain future involving jobs and technologies that have yet to be invented (Levy & Murnane, 2013). Furthermore, because public discourses that communicate critical information in society often make use of this language, academic language proficiency also supports citizens' access to critical public information, such as health advice or political news, and facilitates civic participation (LeVine, LeVine, Schnell-Anzola, Rowe, & Dexter, 2012).

One challenge, however, is that despite widespread consensus on the importance of academic language proficiency and evidence that students in U.S. classrooms struggle to access the language of school texts (National Center for Education Statistics, 2015), so far research has been unclear about precisely which academic language skills are worth instructional attention and monitoring. Another challenge is that the field has been characterized by research that examines academic language either exclusively from a quantitative

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perspective, focused on measuring language skills, or exclusively through qualitative analysis of language as situated sociocultural practices linked with identities and attitudes. In contrast, we argue that to advance our understanding of academic language development and improve pedagogical practice, research needs to investigate academic language simultaneously as language skills and as situated practices.

The research reported here combined both approaches to, first, delineate more precisely which academic language skills deserve teachers' attention and, second, to understand students' attitudes and motivations toward academic language practices. In this article, we illustrate the advantages of this mixed-methods approach (Creswell, 2013). We used quantitative methods to examine the relation between academic language proficiency and reading comprehension (study 1), and qualitative methods to understand students' attitudes and motivations toward academic language as situated school practices (study 2).

In our research, we have proposed the core academic language skills (CALS) framework. CALS are a set of cross-disciplinary language skills hypothesized to support reading comprehension during the upper elementary and middle school years. CALS are defined as a constellation of high-utility language skills needed to understand the linguistic features prevalent in academic texts across content areas, but which are typically infrequent in colloquial conversations (Uccelli, Barr, et al., 2015). For example, CALS include knowledge of logical connectives that are prevalent in school texts but rare in informal peer-to-peer conversations, such as *nevertheless* and *consequently*, and knowledge of complex structures used to pack dense information in texts across content areas, such as nominalizations (e.g., *agree* → *agreement*). To measure CALS, we developed a theoretically sound and psychometrically robust assessment called the CALS Instrument (CALS-I).

To be clear, this instrument does not attempt to capture what some call academic gibberish, or unnecessarily dense and intricate structures that obscure communication (Krashen, 2012). Instead, the CALS-I measures proficiency in core language resources that support precise communication and learning across school content areas. To complement our assessment-based investigation, we also collected and qualitatively analyzed students' oral reflections about academic language. Two questions guide the present article:

1. *Study 1:* What is the contribution of CALS, as measured by the CALS-I, to reading comprehension for upper elementary and middle school students?
2. *Study 2:* How do students use their existing language resources to reflect on academic language?

Over five years, we have worked in collaboration with upper elementary and middle-grade students and teachers in four large linguistically diverse urban districts. Educators who reported that even students who were skilled readers throughout primary school often experienced difficulties in understanding the academic language of middle school texts inspired our work. In the following sections, after a brief literature review, we introduce the CALS construct and the CALS-I. Next, we describe the design of the two studies and the findings that emerged from complementing our quantitative assessment work with the qualitative analysis of students' voices.

Academic Language as Skills: The Challenging Language of School Texts

The Common Core State Standards in the United States call for regular practice with academic language and complex texts throughout the upper elementary and secondary school years (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). This call provides teachers with an important mandate but one that is too imprecise to inform daily instruction. After all, prior research in language and literacy has not fully delineated which text features are challenging to comprehend during these school years.

Let's examine the following text and some of its challenging academic language features:

> The scientific agreement today is that the Earth's surface temperatures have increased in recent decades. Moreover, most scientists agree that it is extremely likely that humans are causing most of it through activities that increase concentrations of greenhouse gases.

Beyond the vocabulary challenges, we would expect this fragment to be difficult to comprehend for a reader who is not familiar with complex sentence structures, extended noun phrases, or nominalizations (e.g., *agreement*, *concentrations*), does not understand how markers of stance signal the writer's degree of certainty (e.g., *extremely likely*), and is unfamiliar with the connective *moreover*.

What is interesting to notice is that these language features are not unique to this particular text. Instead, extensive research in functional text analysis from different traditions (e.g., systemic functional linguistics, corpus analysis, metadiscourse) has shown that

academic texts across content areas exhibit some recurrent language patterns. Although this language is sometimes viewed as unnecessarily complex, we draw on functional linguistics (Halliday, 2004) to suggest that these features are resources used by academic writers because they support precise communication about abstract content with distant audiences. Mastering these language features is therefore hypothesized as a central component of becoming a skilled academic reader.

One important challenge that we face in education is to identify which core set of language skills students know or do not know yet. We must understand also whether mastery of an identified set of language skills would indeed support reading comprehension (Nagy & Townsend, 2012; National Research Council, 2010; Schleppegrell, 2004). This is the goal of the first study presented in this article. Prior research guided by systemic functional linguistics has informed interventions that target a comprehensive set of academic language skills (Martin, 2000; Schleppegrell, 2012). What distinguishes our approach, however, is the focus on directly measuring academic language skills with the goal of linking student data to instruction.

Academic Language as Sociocultural Practice: Disparate Learning Opportunities

One of the most puzzling realities of teaching is that often students who are skilled conversationalists might struggle with the language of academic texts. To explain this discrepancy, we turn to sociocultural and pragmatics-based theories of language development. Counter to the assumption that language is a one-dimensional proficiency that manifests in similar ways across settings, a sociocultural pragmatics-based view of language development entails understanding language as a multidimensional proficiency, with different opportunities to learn leading to language learners who are skilled in some contexts but not in others (Cazden, 2001; Heath, 1983, 2012).

These differences in opportunities to learn have important ramifications for academic language proficiency. Academic language, or the language of schooling, has been identified as especially challenging for bilingual students who speak different languages at home and at school (Cummins & Swain, 2014). Yet, even among monolingual English-speaking students, there are dramatic differences in opportunities to participate in school-like literacies at home and at school (Dickinson & Tabors, 2001; Gee, 2001; Heath, 1983).

Whereas for some students, opportunities to engage in school-like literacies outside of the classroom are frequent, for others, their out-of-school language and literacy practices, although often rich in many ways, tend to differ considerably from the conventional academic literacies of school (Cazden, 2001; Heath, 2012; Moje, 2004). Certainly, informal conversations with peers require many complex skills (e.g., competing for a turn, detecting irony), yet these skills are different from those needed to understand the language of academic texts. We argue that without understanding and addressing the immense variability in students' academic language development, schools run the risk of maintaining inequalities that exist in the larger society (Cummins & Swain, 2014; Delpit, 1988; Heath, 2012).

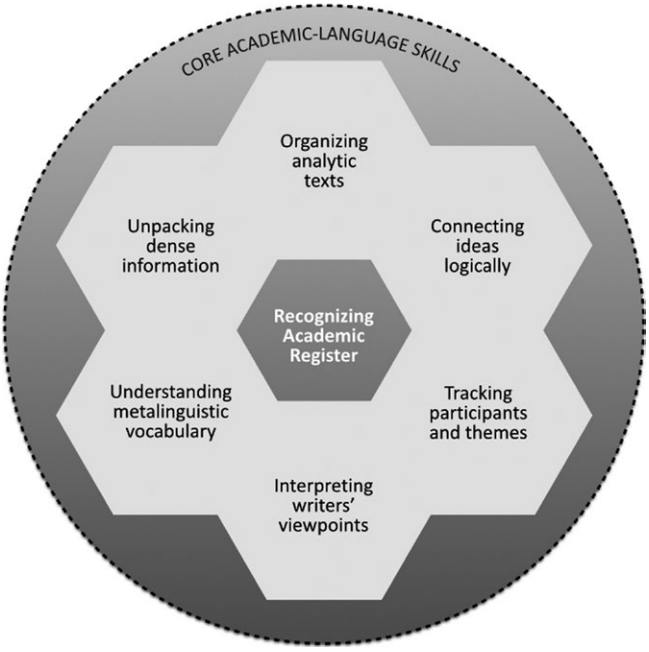
Sociocultural theories also inform how we understand students' role in language learning. After all, students are not passive participants; they are active agents (Rogoff, 1995). Thus, instruction must engage students in co-constructing knowledge of the academic register. Focusing on students as knowledgeable language users, study 2 analyzes students' reflections to understand their attitudes and motivations toward academic language.

How Did We Identify CALS Across Content Areas?

First, to advance prior research focused on academic vocabulary, our research began with the goal of identifying a more comprehensive set of academic language skills that would include grammatical and discourse structures prevalent in academic texts. Second, as a complement to ongoing research on discipline-specific academic language (Bailey, 2007; Schleppegrell, 2004; Townsend, 2015), we made the strategic decision of identifying cross-disciplinary language skills relevant to supporting reading comprehension across content areas. We reasoned that this high-utility skill set would be particularly relevant as an instructional lever for improving reading comprehension.

We engaged in an extensive synthesis of different lines of theoretical and empirical linguistics research to catalog (a) linguistic features prevalent in experts' academic texts across disciplines yet infrequent in colloquial conversations (e.g., Biber, 2006; Halliday, 2004); (b) language skills that develop throughout the upper elementary and middle school years (Berman, 2004; Christie & Derewianka, 2010; Nippold, 2007); and (c) the language demands of U.S. educational standards, school texts, textbooks, and achievement tests (Bailey, 2007; Schleppegrell, 2004). Converging evidence from

Figure 1
Core Academic Language Skills Construct



Note. From "Beyond Vocabulary: Exploring Cross-Disciplinary Academic-Language Proficiency and Its Association With Reading Comprehension," by P. Uccelli, E. Phillips Galloway, C.D. Barr, A. Meneses, and C.L. Dobbs, 2015, *Reading Research Quarterly*, *50*(3), p. 349. Copyright 2015 by the International Literacy Association. Reprinted with permission.

these lines of research, combined with a series of studies in which we tested students' skills, allowed us to identify seven domains of the CALS construct (see Figure 1; see Uccelli, Barr, et al., 2015; Uccelli, Phillips Galloway, Barr, Meneses, & Dobbs, 2015):

1. *Unpacking dense information:* Skill in comprehending complex words and complex sentences that facilitate concise communication (e.g., nominalizations, embedded clauses)
2. *Connecting ideas logically:* Skill in comprehending connectives prevalent in academic texts to signal relations between ideas (e.g., *consequently*, *as a result*)
3. *Tracking participants and themes:* Skill in identifying expressions used to refer to prior participants or themes in an academic text (e.g., "Water evaporates at 100 degrees Celsius. This process...")
4. *Organizing analytic texts:* Skill in organizing texts according to conventional academic structures, especially argumentative texts (e.g., thesis, argument, counter-argument, rebuttal, conclusion) and paragraph-level structures (e.g., compare/contrast, problem/solution)
5. *Understanding metalinguistic vocabulary:* Skill in understanding metalinguistic vocabulary, that is, expressions that refer to reasoning and discussion processes (e.g., *hypothesize*, *generalization*, *argument*)
6. *Interpreting writers' viewpoints:* Skill in understanding markers that signal a writer's viewpoint, especially epistemic stance markers, which signal a writer's degree of certainty in relation to a claim (e.g., *certainly*, *it is unlikely that*)
7. *Recognizing academic register:* Skill in recognizing more academic language when contrasted to more colloquial language (e.g., more academic vs. more colloquial noun definitions)

How Did We Develop the CALS-I?

To develop the CALS-I, we designed items to capture individual differences in skills across grades 4–8 and across the seven domains. Listening closely and iteratively to students' and teachers' critical feedback, we tried several formats, adjusted instructions, and redesigned items. After a series of rigorous qualitative and psychometric studies, a final set of items was selected. Subsequently, the CALS-I was sent to an external panel of academic language and assessment experts to assess the content validity of the instrument. Experts' valuable feedback was incorporated to the extent possible (Uccelli, Barr, et al., 2015). As displayed in Figure 2, the design and validation of the CALS-I followed five phases.

As a result, two CALS-I forms have been generated:

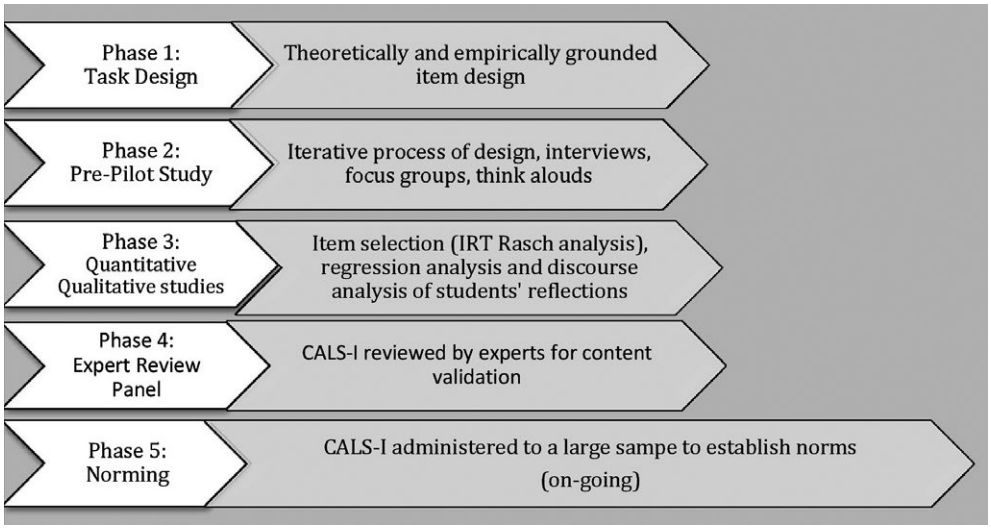
1. CALS-I form 1 for grades 4–6 (Cronbach's $\alpha = .93$)
2. CALS-I form 2 for grades 7 and 8 (Cronbach's $\alpha = .92$)

Each form consists of a 50-minute paper-and-pencil test that includes the tasks listed in Table 1. Tasks assess students' skills through a range of multiple-choice questions, matching items, or short written responses (for more information, see Uccelli, Barr, et al., 2015; Uccelli, Phillips Galloway, et al., 2015).

Study 1

In contrast to the belief that language development, with the exception of vocabulary learning, ends around the early elementary years, we predicted that language skills continue to develop throughout adolescence and vary considerably even among students in the same grade. We also hypothesized that students with higher CALS would display higher reading comprehension scores. We anticipated that even among students in the same grade, with the same level of

Figure 2
Core Academic Language Skills Instrument: Design Phases



vocabulary knowledge and decoding skill, those with higher CALS would display a higher proficiency in reading comprehension.

Who Participated in the Study, and What Did We Measure? The participants were 218 students from an urban public school in the Northeastern United States. Students were distributed similarly across grades 4–6, with almost equal proportions of females (49%) and males. The school primarily served students growing up in low socioeconomic status (SES) environments as indexed by the eligibility for free or reduced-price lunch. A total of 141 students (65%) qualified for free or reduced-price lunch. Half of the students in this sample were designated as English proficient (EP; n = 109) and the other half as English learners, either current English learners (ELs; 22%) or former English learners (FELs; 28%). An EL designation indicated that students' emerging English proficiency was not yet at the benchmark set by the district to perform ordinary classwork in English without language support services. The FEL designation referred to former ELs who had met the district's English-proficiency criteria in the last two years. School records indicated that students spoke mostly Spanish at home, with only a few participants reporting Arabic, Haitian Creole, or "other" as their home languages. School records indicated that students' were mostly Latino/Hispanic (41%), followed by almost a third of African American students (30%), and a smaller proportion of white students (19%). Less than a third received special education services.

Trained administrators, all with experience as middle school teachers, administered four assessments in students' classrooms:

1. *Reading comprehension via the Gates–MacGinitie Reading Test:* Standardized group-administered test (MacGinitie, MacGinitie, Maria, & Dreyer, 2000)
2. *Word reading fluency via the second edition of the Test of Silent Word Reading Fluency:* In this group-administered test (Mather, Hammill, Allen, & Roberts, 2004), students are given one minute to mark slashes between connected words (e.g., "*gofromon = go/from/on*").
3. *Academic vocabulary depth via the Vocabulary Association Test (VAT):* In this group-administered test (Lesaux, Kieffer, Faller, & Kelley, 2010), students are given a target word (e.g., *effect*) and asked to select the three most closely semantically related words from a list of six options.
4. *High-utility academic language skills via the CALS-I form 1:* Group-administered test (Cronbach's α = .93)

Measuring CALS: What Did We Find? First, we examined whether CALS-I scores varied significantly by grade (4, 5, or 6), English-proficiency designation (EP, EL, or FEL), or socioeconomic status (ineligible or eligible for free or reduced-price lunch). Next, we explored CALS associations with all measures. Finally, to assess whether CALS-I scores were predictive of reading comprehension, hierarchical regression analyses were conducted, with reading comprehension as the outcome variable and sociodemographic characteristics, word

Table 1
Core Academic Language Skills Instrument

Tasks	Skills measured	Sample items	Additional examples
Unpacking dense information: Complex words (selected items from Kieffer, 2009[a]; Kieffer & Lesaux, 2012[b]; adapted from Carlisle, 2000[c]) and complex sentences (selected and adapted items from version 2 of the Test for Reception of Grammar; Bishop, 2003[d])	Skill in breaking down complex words	The administrator reads a morphologically derived word followed by an incomplete sentence, and students are asked to complete the sentence by extracting the base from the derived word (e.g., "*Ethnicity*. The city had many ___ groups.").	*invasion, durability, contribution*
	Skill in understanding complex sentence structures	The administrator reads a sentence, and students are asked to select the picture that corresponds to the target sentence. Four pictures are presented, three of which depict sentences altered by a grammatical element (e.g., "The sheep the girl looks at is running.").	expanded noun phrases, center-embedded clauses
Connecting ideas logically	Skill in understanding school-relevant words that connect ideas	Students are asked to select the missing marker from among four options (e.g., "Kim was sick ___ she stayed home and did not go to school. *otherwise*, *yet*, *in contrast*, *as a result*").	*consequently, nevertheless, in conclusion*
Tracking participants and themes	Skill in tracking referents through a text	Students are asked to match the underlined text with its antecedent by selecting among three options (e.g., "China resisted the move for change. In 1989 students protested to demand changes, but the army opposed these changes. Troops were sent to stop the movement.").	tracking references for concrete participants, events, abstract ideas
Organizing analytic texts	Skill in argumentative text organization	Students are asked to order four to six fragments of a brief essay (introduced by conventional markers; e.g., *in my opinion*, *one reason*, *in conclusion*) in order to display a conventional argumentative text structure.	"Some think...," "Others think...," "The first reason...," "The second reason..."
Understanding metalinguistic vocabulary	Skill in understanding words that label or qualify language or thinking moves	The administrator reads two sentences from an informational article followed by a one-sentence reaction from a respondent. Students are then asked to select which word best describes the respondent's reaction from among four options (e.g., *paraphrase*, *generalization*, *hypothesis*, *contradiction*).	*counterclaim, evidence, precise*
Interpreting writers' viewpoints	Skill in interpreting markers that signal a writer's level of certainty about a claim	The administrator reads a "scientist's" claim that includes a stance marker, and students are asked how sure they think the scientist is about the claim made (e.g., "Certainly, the rock is from space."). Students select from among four options to answer the question (e.g., "Is this scientist sure that the rock is from space? yes, maybe yes, maybe no, no").	*impossible, presumably, conclusively*
Recognizing academic register	Skill in identifying more academic versus more colloquial language	Students are asked to select the most academic definition from a set of three definitions of the same familiar word.	*umbrella, clown, debate*

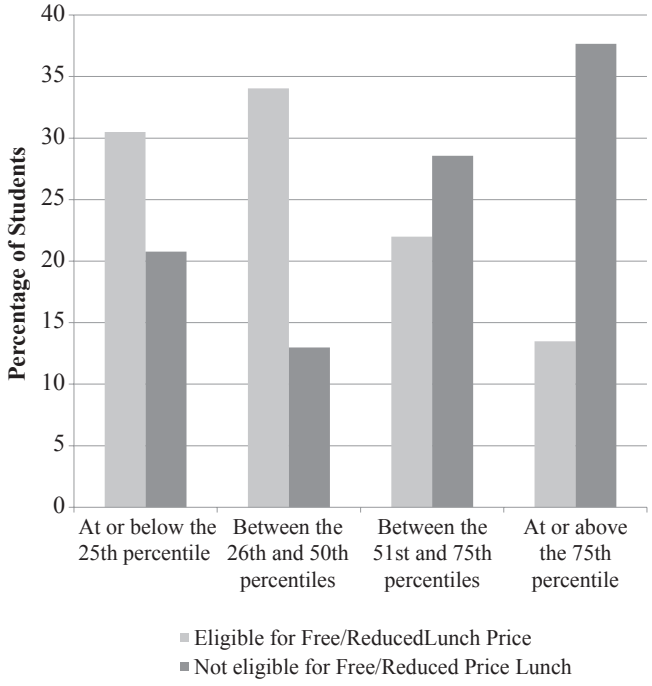
[a]Kieffer, M.J. (2009). *The development of morphological awareness and vocabulary knowledge in adolescent language minority learners and their classmates* (Unpublished doctoral dissertation). Harvard University, Cambridge, MA. [b]Kieffer, M.J., & Lesaux, N.K. (2012). Effects of academic language instruction on relational and syntactic aspects of morphological awareness for sixth graders from linguistically diverse backgrounds. *The Elementary School Journal*, *112*(3), 519–545. [c]Carlisle, J.F. (2000). Awareness of the structure and meaning of morphologically complex words: Impact on reading. *Reading and Writing*, *12*(3), 169–190. [d]Bishop, D.V. (2003). *Test for Reception of Grammar version 2 (TROG-2)*. Oxford, UK: Pearson.

reading fluency (Test of Silent Word Reading Fluency, second edition), and academic vocabulary knowledge (Vocabulary Association Test) as covariates. That is, we conducted statistical analyses to examine whether CALS made a unique contribution to students' reading skills even after taking into account their word reading fluency and vocabulary skills, as well as their sociodemographic characteristics.

Key Finding 1: CALS Vary Considerably Across Students. We found substantial individual differences across and within grades. Overall, sixth graders displayed significantly higher CALS than fourth and fifth graders. For instance, sixth graders tended to be more skilled at understanding connectives, handling complex grammatical structures, tracking themes, and structuring argumentative texts. Most revealing were the substantial individual differences in CALS-I scores among students in the same grade. Although the mean percentage correct CALS-I score in fourth grade was .52 (standard deviation [*SD*] = .28) and in sixth grade .63 (*SD* = .26), there were some fourth graders with scores as high as .73 and some sixth graders with scores as low as .32. On average, students classified as ELs scored significantly lower on the CALS-I and the reading comprehension assessment than their EP peers, as would be expected given that they are emerging bilinguals still learning English as a second language.

Our results also revealed enormous individual variability within and across SES groups. Of particular interest was the finding that CALS-I scores differed considerably even for students designated as EP. Figure 3 displays the percentage of students by level of performance on the CALS-I and by socioeconomic status. As shown in this figure, students eligible for free or reduced-price lunch, overall, tended to perform lower than their socioeconomically more privileged peers. Yet, individual variability was evident not only across but also within SES groups. Counter to a deficit view and despite the overall tendency of lower academic language skills in students from lower SES backgrounds, Figure 3 reveals that many students from lower SES backgrounds performed comparably to or better than some of their more privileged peers.

Figure 3
Distribution of Participants by Core Academic Language Skills Instrument Percentiles and Socioeconomic Status (eligibility for free or reduced-price lunch)

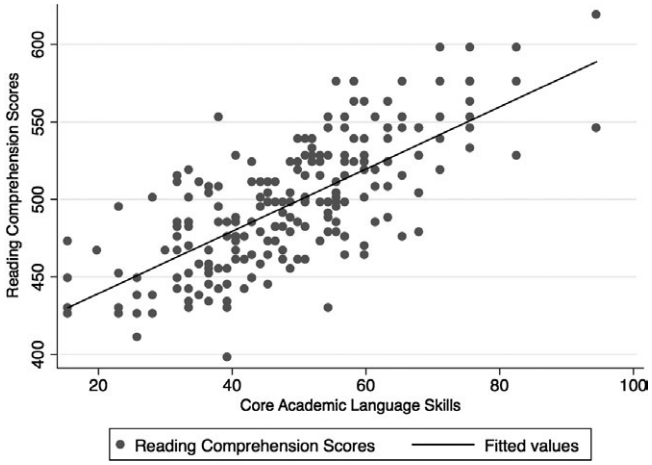


Thus, individual differences in CALS hint at the possibility of academic language as an important component in providing high-quality and equitable instruction. The CALS construct emerges as relevant to capturing developing language skills not only for ELs but also for so-called EP and presumably monolingual students. These results revealed enormous individual differences, underscoring that all students, those classified as ELs and those classified as EP, are indeed academic ELs and that the upper elementary and middle school years constitute a critical period to scaffold school-relevant language learning.

Key Finding 2: CALS Support Reading Comprehension. Regression analyses revealed that individual differences in students' CALS significantly contributed to reading comprehension. Even when we accounted for other factors known to impact text comprehension (grade, English-proficiency designation, SES, word reading fluency, and academic vocabulary knowledge), students' CALS-I scores still made a significant contribution to explaining differences in reading comprehension scores. In other words, the higher the CALS-I scores, the higher the reading comprehension scores, even when all other characteristics were held constant. These findings suggest that this broader set of academic language skills plays a central role in supporting readers in accessing text in the upper elementary and middle school grades. As shown in Figure 4, students with higher CALS-I scores tended to achieve higher reading comprehension scores.

One novel finding was that when academic vocabulary knowledge and CALS-I scores were added to the model, the impact of SES and English-proficiency designation on reading comprehension became insignificant. These results are promising because they suggest that, compared with SES or English-proficiency designation, CALS-I scores more precisely predicted reading comprehension. These results underscore the importance of targeting this particular set of skills.

Figure 4
Scatterplot of Core Academic Language Skills Instrument Scores Versus Reading Comprehension Scores



Study 2

In the second study, we complemented our assessment-based research with qualitative analyses of students' reflections about language. We asked a total of 47 students in grades 4–8 to reflect about the language of school, using experimental CALS-I tasks as a point of departure (for information on this method, see Phillips Galloway, Stude, & Uccelli, 2015). Forty-two of the participants were eligible for free or reduced-price lunch. Twenty students were girls, and 23 were bilingual/multilingual. There were similar numbers of students by self-reported ethnicity (13 African Americans, 12 Latinos, 12 whites, and 10 Asians). Data were audiotaped, transcribed, and analyzed for students' descriptive and evaluative references to language with the goal of uncovering students' awareness of academic language and their attitudes and motivation toward academic language use.

Key Finding 3: Context-Driven and Functional Uses of Academic Language Resources. Our qualitative analysis revealed, first, that students across grades were keenly aware of the distinction between more conversational and more academic language resources and their expected uses outside or inside of school, respectively. Second, and more alarming, students' voices revealed a worrisome tendency: the extent to which students had internalized the hierarchical societal values associated with different ways of using language. When asked to compare more academic versus more colloquial text fragments, many students repeatedly described academic language as displaying "better vocabulary," "finer words," and "correct words," thus implicitly positioning the more colloquial language fragments as possibly bad, poor, or incorrect.

Finally, students reported that their uses of academic language were mainly motivated by self-presentation reasons. For instance, many students said they would use academic language to "appear nice" or to "sound smart." Relatedly, the consistent focus on self-presentation as the motivation to use academic language suggested that students are typically unaware of the functionality of academic language resources. No student referred to the use of more precise, concise, or reflective language to facilitate their oral or written communication. Nor did they mention the usefulness of these resources to understand school texts. These results suggest a need to explicitly highlight the often overlooked functionality of academic language resources, that is, the ways in which the expansion of school-relevant lexical, syntactic, and discourse structures can support more precise, concise, and reflective expression and text comprehension.

Overall, these conversations with students alerted us to the dangers and opportunities of classrooms as language learning spaces. This study revealed that listening to students' voices to understand what they already know about language and to invite them to reflect on language can be insightful for teachers and highly engaging for students. Whereas it would be naive to think that educators can reverse the social values associated with different uses of language outside of school, within the walls of a classroom, a teacher can certainly counteract entrenched social language hierarchies and highlight the value of flexible linguistic navigation that responds appropriately to different contexts and goals.

In a classroom that portrays ways of using language as context dependent and multiple, flexible voices as resources, academic language ought to be presented as a set of discourse practices helpful to communicating scientific ideas, but which are not necessarily superior to other ways of using language and certainly not the best choice in many communicative contexts. The instructional goal ought not to be to socialize students into homogeneous users of academic language. Instead, the goal should be to expand students' language resources so they learn to flexibly use academic language resources to sharpen their own meanings and to understand those of others.

Through an instructional model that pays attention to both the skills and the functionality of academic language, students can be supported to internalize these language resources as they expand their own voices to reflectively analyze or select language purposefully. We ought to strive to prepare students to be deep thinkers and reflective language users so they have a choice to use or not to use academic language, but doing so not as the

result of a lack of language resources but instead guided by their knowledge and awareness of an array of language choices that can be more or less effective across contexts.

This is important not only in valuing students' own ways of communicating (Delpit, 1988; Valdés, 2004) but also because in a world that is ever more diverse, those who can flexibly move across cultures, communities, and ways of speaking are better equipped to communicate successfully across boundaries (Paris & Alim, 2014). In our view, mastering CALS does not entail using formulaic structures according to prescriptive rules but, instead, using language resources flexibly in the service of effective communication and learning. A successful language user is one that has at her or his disposal the resources and awareness to participate flexibly and effectively in a variety of academic and nonacademic contexts (Berman, 2004). Certainly, among the many ways of using language, school needs to focus on expanding students' academic language resources to support their academic achievement. Yet, our research suggests that this learning will be more effective if students' voices and their own ways of making meaning are heard and incorporated into the discussion.

TAKE ACTION!

Throughout school, students continue to develop a broad array of academic language skills: connectives, complex grammatical structures, resources to track participants, expository text structures, metalinguistic vocabulary, and markers of writers' viewpoints. The expansion of these skills needs to be situated not as an instructional end but as an instructional means. Scaffolding precise communication and comprehension through guided opportunities for students to use academic language needs to be focused on conceptual learning (van Lier & Walqui, 2012).

1. *Teachers as two-way language bridges:* Teachers can function as bridges between students' and texts' language by paraphrasing the language of text into more accessible language and, conversely, paraphrasing students' ideas into more precise language. This approach provides access to content, expands students' language resources, and honors the language that everyone brings to the classroom.
2. *Anticipating language challenges:* The CALS framework can support teachers in anticipating the language challenges that texts might pose. By pausing to verify comprehension, paraphrasing, or calling attention to certain text features, this language focus happens in service of conceptual understanding.
3. *Reflecting on language and context:* Promoting students' awareness of how language differs by audience and purpose is critical to understanding CALS, not as prescriptive rules but as flexible communicate resources.

Conclusion

The Common Core State Standards open a window of opportunity for promoting learning practices that engage students and teachers in the expansion of content knowledge and conceptual understanding while paying attention to language (Valdés, 2004). Our quantitative research reveals that this is an important undertaking given that large proportions of students have not yet developed the language skills to understand many of the linguistic features that heavily populate most of their upper elementary and middle school texts. Moreover, our qualitative studies suggest that although students recognize academic language resources as appropriate for school, they typically qualify these resources as "correct" and "polite," rarely perceiving them as functional tools that they can appropriate to become better readers, writers, and learners.

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MORE TO EXPLORE

- Strategic Adolescent Reading Intervention is a curriculum designed for struggling readers that attends explicitly to academic language: stari.serpmedia.org.
- Stanford University's Understanding Language website offers research-based information to support ELs' instruction: ell.stanford.edu.
- Word Generation is a curriculum that simultaneously teaches academic language and content: wordgen.serpmedia.org.