

Reading and Reading Instruction for Children from Low-Income and Non-English-Speaking Households

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Summary

Although most young children seem to master reading skills in the early grades of elementary school, many struggle with texts as they move through middle school and high school. Why do children who seem to be proficient readers in third grade have trouble comprehending texts in later grades? To answer this question, Nonie Lesaux describes what is known about reading development and instruction, homing in on research conducted with children from low-income and non-English-speaking homes. Using key insights from this research base, she offers two explanations. The first is that reading is a dynamic and multifaceted process that requires continued development if students are to keep pace with the increasing demands of school texts and tasks. The second lies in the role of reading assessment and instruction in U.S. schools.

Lesaux draws a distinction between the “skills-based competencies” that readers need to sound out and recognize words and the “knowledge-based competencies” that include the conceptual and vocabulary knowledge necessary to comprehend a text’s meaning. Although U.S. schools have made considerable progress in teaching skills-based reading competencies that are the focus of the early grades, most have made much less progress in teaching the knowledge-based competencies students need to support reading comprehension in middle and high school. These knowledge-based competencies are key sources of lasting individual differences in reading outcomes, particularly among children growing up in low-income and non-English-speaking households.

Augmenting literacy rates, Lesaux explains, will require considerable shifts in the way reading is assessed and taught in elementary and secondary schools. First, schools must conduct comprehensive reading assessments that discern learners’ (potential) sources of reading difficulties—in both skills-based and knowledge-based competencies. Second, educators must implement instructional approaches that offer promise for teaching the conceptual and knowledge-based reading competencies that are critical for academic success, particularly for academically vulnerable populations.

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Reading” is a dynamic construct —what counts as proficient varies as a function of text demands, situation, purpose of reading, and reader characteristics. Although most young children seem to acquire proficiency in early reading skills in the elementary grades, large shares of older students struggle with texts in middle school and high school. Why do children who seem to be proficient readers in third grade struggle to comprehend texts in later grades? What keeps them from being truly proficient readers in the early grades, and why do they leave elementary school with mounting reading difficulties? One answer lies in the distinction between the procedural skills necessary for reading proficiency and the conceptual skills and knowledge necessary for reading proficiency. Although most young learners have acquired the procedural skills they need to achieve success on early reading measures, they often cannot readily handle the added language and knowledge demands of the texts in middle and high school.¹ Another answer lies in the role of reading instruction within the overall curriculum. Although schools are often adept at teaching procedural reading skills, most are not structured to promote knowledge-based reading development, and formal reading instruction typically stops at fourth grade. Nor have schools put into place the systematic assessment practices necessary to identify the sources of difficulty for both young and adolescent readers and the supports necessary to allow teachers to address them.

To prevent seemingly competent young readers from falling behind in middle and high school, schools must strengthen reading instruction. Taking action is especially important because many of these struggling adolescent students make up a significant

part of a growing population in today’s classrooms: students from low-income and non-English-speaking households.² To better support these populations, schools should make more effective use of the distinction between skills-based and knowledge-based competencies in designing both assessment and instructional practices.

In this article I focus on the conceptual skills and knowledge that are needed to develop the literacy skills described by Richard Murnane, Isabel Sawhill, and Catherine Snow in the article that opens this issue.³ I explore why large numbers of children raised in low-income households or in families whose primary language is not English, or both, find it difficult to acquire the requisite conceptual skills and knowledge to succeed in school. I also clarify why instructional approaches that are effective in teaching reading skills to meet literacy demands in the early elementary grades are not necessarily effective for reading in middle school, as well as why improved test scores in the early grades over the past twenty years mask serious deficits that ultimately impede academic achievement.

The Demographics of Reading Difficulties

According to census data an increasing number of students entering U.S. schools come from low socioeconomic or immigrant backgrounds, or both, that predict an at-risk profile for reading difficulties. The latest government statistics reveal that child poverty rates increased from 16.2 percent in 2000 to 21.6 percent in 2010.⁴ With immigration rates also on the rise, children of immigrants now make up 24 percent of the school-age population. The Latino population, the nation’s largest immigrant group, has accounted for 56 percent of U.S. population growth in the

past two decades, and U.S.-born children of Latino immigrants are the fastest-growing school-age population entering preschools and kindergartens.⁵ Moreover, linguistic diversity and poverty are related; many children of immigrants and immigrant children are raised in poverty. Strikingly, approximately one in every three Latino children grows up in poverty, and many also enter school with limited proficiency in English.⁶

Poverty's negative effects on reading outcomes—the result primarily of disparate learning opportunities afforded to children growing up in higher and lower income settings—place this population at significant risk of school failure.⁷ Similarly, having to learn to read and develop academic knowledge in a language in which they are not fully proficient increases the likelihood of school failure for students from non-English-speaking households.⁸ Second-language learners who grow up in poverty thus face compounding risks, making them especially vulnerable to poor academic outcomes.⁹

Large-scale assessment results confirm the troubling demographics of reading difficulties in the United States. According to the 2009 National Assessment of Educational Progress (NAEP) results, only 6 percent of students classified as English Language Learners in grade four and 3 percent in grade eight read at or above proficiency levels.¹⁰ Of students raised in poverty (as determined by qualification for free or reduced-priced lunch), only 17 percent in fourth grade and 16 percent in eighth grade read at or above proficiency levels. And as the share of students from these vulnerable populations grows nationwide, the number of students with reading difficulties is also likely to rise, particularly at the secondary level where texts are more sophisticated and reading demands are high.¹¹

Faced with these pervasively low literacy performance rates and a test-based accountability system that demands scrutiny of student outcomes by demographic background (including poverty and second-language learner status), federal, state, and district-level leaders are pushing hard for instructional change. In rural and urban settings characterized by poverty or linguistic diversity, or both, administrators are working to improve the overall quality of literacy instruction and the design of learning environments.¹² Many schools, however, especially those in states where immigration is a relatively recent phenomenon, are ill-equipped to serve their growing numbers of children from non-English-speaking homes.¹³ What were once questions from individual teachers worrying about the individual student with limited proficiency in English—part of a relatively small group of struggling readers—are now much larger-scale questions posed by policy makers and practitioners alike about how to bolster literacy rates among this population.

Skills-Based and Knowledge-Based Reading Competencies

As noted, becoming an effective reader is a dynamic and complex process. “Reading” at age three is not the same as reading at age five; reading for a nine-year-old is different from reading for a college student. Maturing readers need to keep pace with the changing demands of text and the purpose for reading. To read effectively, readers not only decipher words on a page, but also use accumulating knowledge to assess, evaluate, and synthesize the presented information.¹⁴ When reading successfully, readers often work in shades of gray, confronting problems that can be solved only by integrating ideas from multiple resources; they understand a wide range of concepts and access and apply knowledge from multiple disciplines. In this way, reading

creates a foundation for learning across all academic domains, including math, science, and social studies.¹⁵

The distinction between the procedural skills and the conceptual skills and knowledge necessary for reading proficiency is important for thinking about reading instruction as it relates to children from low-income and non-English-speaking homes.¹⁶ To better support these children, the distinction should inform the design of both assessment and instructional practices in order to target both the smaller (skills) and larger (knowledge) reading problem spaces.

At a minimum, to make meaning from text, the reader needs relevant background knowledge related to the text's vocabulary, topic, and structure.

Skills-based competencies are those that allow students to master the mechanics of reading. They are highly susceptible to instruction, are learned in the primary grades by the average student, and for the great majority of students are not a lasting source of difficulty.¹⁷ These skills relate mostly to the “mechanics” of reading—the ability to map the letters onto their respective sounds in combinations, and thus read words. For example, knowing the full array of sound-symbol relations using the twenty-six letters and forty-four sounds in the English language enables accurate word reading.

Knowledge-based competencies, by contrast, must be developed over many years and are key sources of lasting individual differences in reading ability.¹⁸ At a minimum, to make meaning from text, the reader needs relevant background knowledge related to the text's vocabulary, topic, and structure.¹⁹ The passage below, adapted from a common fifth-grade reading assessment, illustrates the distinction between skills-based and knowledge-based competencies in reading.²⁰

High-Speed Trains

A type of high-speed train was first introduced in Japan about forty years ago. The train is low to the ground, and its nose looks somewhat like the nose of a jet. These trains provided the first passenger service that moved at a speed of one hundred miles per hour. Today, they are even faster, traveling at speeds of almost two hundred miles per hour. There are many reasons that high-speed trains are popular.

Students must demonstrate both types of reading competencies to read even this short passage. They must be able to map sounds onto letters (for example, /s/ /p/ /ee/ /d/) and blend these to form a word. They must also recognize common spelling patterns, such as the “-igh” family found in the word “high.” And students must do this decoding fast enough to have time to attend to meaning; in fifth grade, they must read correctly at least 115 words a minute. But skills-based competencies are not sufficient to support text comprehension. Students also need knowledge-based competencies, including understanding the meaning of the words in their contexts and other relevant language skills. In this example, the multiplicity of possible meanings of the word “service” makes this task especially challenging. (Dictionary.com provides thirty-seven entries under the word “service,” including noun, adjective, and

verb forms, along with a number of idioms.) Students must also activate and use relevant background knowledge, bringing some conceptual knowledge about both trains and jets, for instance, to fully understand the passage. Moreover, students must have the interest and motivation to finish the passage and the cognitive strategies necessary to monitor their reading and repair any misunderstandings along the way (for example, a child who pictures a human nose upon coming to the word “nose” in the text must adjust this misunderstanding when reading the comparison to a jet nose).

Reading Development for Children from Non-English-Speaking and Low-Income Households

Developmental research makes clear that the vast majority of children from non-English-speaking and low-income households ably master procedural skills-based reading competencies within the same time frame as their peers from middle-class, majority-culture backgrounds.²¹ That is, with adequate instruction, the great majority of the school-age population is proficient in letter-sound correspondences—and thus has the basic ability to decode printed words—by the end of second grade.²²

By contrast, knowledge-based competencies—those competencies more directly related to comprehension—appear to be persistent sources of difficulty for many of these students.²³ This trend surfaces in cross-sectional data featuring results from large-scale reading assessments, such as the NAEP (see statistics above) and state-level tests, though few studies have examined the skills that determine performance on these measures. A recent wave of developmental research, however, confirms the challenges for the growing population of children who

enter school with limited proficiency in English.²⁴ For example, across three studies (two of which are longitudinal studies, each following a cohort of children over time) of U.S.-born children of Latino immigrants conducted in the Southwest and in the Northeast, the average reading comprehension level hovered around the 30th percentile by the end of middle school. For the samples in both regions, mechanical skills were within the average range, while vocabulary levels—often considered a proxy for background knowledge—were between the 20th and 30th percentile.²⁵

Yet the challenges of limited English proficiency are not always clear. In the United States, many children who are learning English as a second language also live in low-income households, which have long been identified as risk factors for later reading achievement.²⁶

Emerging work using a comparative design demonstrates the role of poverty in reading difficulties, noting the similar literacy outcomes for children from low-income households, irrespective of language background. For example, a recent study examined the nature of reading comprehension difficulties for struggling sixth-grade readers enrolled in twenty-six classrooms in a large, urban district. When comparing the sources of difficulty for those struggling readers from non-English-speaking homes and those from monolingual English-speaking homes, the researchers found more similarities than differences. For the sample studied, low vocabulary knowledge was a profound source of difficulty across linguistic groups, while the majority of these struggling readers had developed age-appropriate skills-based reading competencies.²⁷

Another study, by Michael Kieffer, using the nationally representative Early Childhood Longitudinal Study, Kindergarten Cohort, data set, showed that children who entered kindergarten with limited proficiency in English continued to demonstrate reading achievement below that of their monolingual English-speaking peers through fifth grade.²⁸ The kindergarten students from non-English-speaking homes, however, had scores similar to those of monolingual English speakers from homes at comparable socioeconomic levels. Moreover, an in-depth comparison of adolescent nonnative English speakers (who were U.S.-born and educated) and their native English-speaking classmates demonstrated that both groups knew key elements of features of text known to influence comprehension, but that both performed relatively poorly on measures of language and vocabulary.²⁹ Although the nonnative speakers performed worse than the native speakers, whether these differences were practically meaningful—for the purposes of improvement efforts—is in question.

These findings suggest that many students who enter school with limited English proficiency or with low scores on early literacy or “reading readiness” measures, or both, never “catch up.” Many educators are left with the impression that negotiating two languages may compromise overall learning ability. In fact, although their reading performance levels appear low, performance growth rates for these vulnerable populations are promising. For example, a ten-year longitudinal study following Spanish-speaking children (U.S.-born children of immigrants recruited from Head Start centers at age four) from early childhood through early adolescence finds that both skills-based and knowledge-based reading competencies grew at a rate equivalent to that of the average U.S. monolingual

English student.³⁰ Kieffer’s research using the Early Childhood Longitudinal Study, Kindergarten Cohort, similarly suggests that children who entered kindergarten with lower proficiency in English than their monolingual peers had significantly lower scores in fifth grade even though they had slightly faster rates of growth in reading.³¹ Taken together, these studies suggest that although children entering school with limited English proficiency demonstrate age-appropriate, even relatively rapid, growth in English reading achievement from early childhood through early adolescence, the growth is not sufficient to compensate for the substantial early gaps.

Implications for Assessment

Assessment is the cornerstone of effective teaching practice; the degree to which teachers are comprehensive and timely in supporting struggling readers varies as a function of whether they are comprehensive and timely in assessing reading competencies. Indeed, good reading instruction starts with comprehensive assessment.³²

Key insights into the dynamic, multifaceted nature of reading and the struggle of students from low-income and non-English-speaking homes to develop adequate knowledge-based reading competencies to support comprehension should guide reading assessment practices for both early readers and adolescent readers.

For early readers, comprehensive screening is essential. To a large extent, educators have the ability to determine which young students will have problems reading advanced texts in later grades. In fact, research shows that it is possible to predict in early childhood who is at risk for later reading difficulties. For example, just as a child’s ability to hear

and work with the sounds of spoken language (called “phonological awareness”) at ages four and five is strongly related to his word reading skills in the primary grades,³³ a child’s vocabulary at age four is predictive of his third-grade reading comprehension.³⁴ Yet in many districts and schools the first reading assessment is the standards-based test administered in third or fourth grade.

Even when early reading screening batteries are in place, they focus overwhelmingly on skills-based reading competencies (testing such skills as letter knowledge, word reading accuracy, and word reading fluency) and not on knowledge-based competencies.

Measuring children’s progress in reading on the basis of skills-based reading competencies alone, however, can mask significant weaknesses in knowledge-based competencies that directly support later text comprehension, especially in vulnerable populations of children.³⁵ Early reading instruction too is unbalanced. During the only years when large blocks of time are devoted to reading instruction, schools often devote disproportionate instructional time, planning, and professional development to increasing students’ skills-based competencies in a systematic, explicit manner. Thus, comprehensive early reading screening batteries must capture and monitor children’s progress in both skills-based and knowledge-based reading competencies.³⁶ Advances in e-reading technology highlight the potential of new assessment batteries that are targeted to individual students’ developmental needs and that include measures of knowledge-based competencies. (See the article by Gina Biancarosa and Gina Griffiths in this issue.)³⁷ Using early assessments that include these knowledge-based competencies, teachers can match instruction to the developmental needs of readers by focusing attention on other competencies necessary for later

reading success. Until all schools consistently perform such screening batteries, many of the nation’s most vulnerable readers will have to struggle for years because no one has identified their significant weaknesses in understanding text. By that point, a cycle of academic failure (and its ripple effects) is entrenched; years of opportunities for intervention and support have been squandered, and reading problems may have caused great harm to a child’s school experience and identity.

For adolescents, comprehensive reading assessment would also contribute to improvement efforts by shedding light on struggling readers’ specific sources of difficulty throughout the secondary years. Although reading intervention in the primary grades tends to be based on a child’s profile on measures of component competencies of reading (albeit often skills-based reading competencies), the struggling adolescent reader is most often identified for services based on performance on a singular, global measure of reading (for example, a state test). No further assessment to investigate sources of difficulty is undertaken.³⁸ In turn, interventions used with (often heterogeneous) groups of “struggling readers” tend to be driven by the availability of commercial supplemental programs.³⁹ These interventions also gravitate toward skills-based competencies. Many focus on word reading fluency, for example, when it is clear that many struggling middle and high school readers need to develop the vocabulary and background knowledge necessary to comprehend grade-level academic texts.

As such, in middle and high schools, the dearth of comprehensive diagnostic assessment, coupled with current intervention selection practices, results in a mismatch between struggling readers’ needs and the

instructional supports that might be offered to them.⁴⁰ Reading assessment should do far more than identify whether a child is reading at grade level; it should identify weaknesses in specific competencies that may result in later difficulties. The assessment should also reveal strengths and weaknesses across groups of students—by grade level and by competency. Particularly in secondary schools serving vulnerable populations, ongoing comprehensive reading assessments must uncover students' instructional needs, inform classroom instruction, and support intensified instruction for those in need.

Implications for Instruction

As demographics of the U.S. school-age population shift and twenty-first-century literacy demands raise the proficiency bar for what it means to be “literate,” large percentages of students need more targeted literacy instruction and intervention efforts. Now is the time to revisit some of the principles that guide the current paradigm for reading instruction throughout the school years in order to better prepare all readers as they navigate through elementary and secondary school.

Just as the nation's schools need a more comprehensive approach to the assessment of reading, they need a more comprehensive approach to its instruction—one that better capitalizes on identified strengths and targets student needs in the service of text comprehension. This shift will require two major changes.

First, reading must be conceptualized in practice as it is in theory and research—as a developmental, dynamic process that depends heavily on knowledge-based reading competencies. Large-scale observational research conducted in high-poverty, linguistically diverse elementary schools suggests that

systematic instruction focused on knowledge-based competencies in these settings is limited.⁴¹ Yet without well-developed abilities in meaning-related competencies, mastery of the mechanics of reading becomes less and less valuable with time. Indeed, the core benefit of mastering the mechanics of print is to allow students to direct and devote sufficient cognitive resources to the meaning-making process.⁴² Without a significant grasp of the knowledge-based competencies, vulnerable populations of students reach middle school with serious reading problems. For example, comprehension strategies often taught as part of today's standard instruction—predicting, summarizing, making inferences—can be leveraged only if the student has the relevant vocabulary and background knowledge needed for the passage.⁴³

Second, the importance of knowledge-based reading competencies, as well as the increasing demands of text in secondary school, warrant policies that call for reading instruction as a pre-K-to-12 enterprise, rather than a K–3 practice. Given the changing (and increasing) language and knowledge demands of text, even a comprehensive K–3 approach to reading instruction will leave many at-risk readers struggling with the sophisticated texts they encounter as they move through the school years. A pre-K-to-12 instructional model would be guided by a cohesive plan to provide reading instruction year after year, with an eye toward supporting all students, but especially those who are academically vulnerable.

With these two shifts in mind, what should the new instructional model look like? It would provide students with deep, language- and content-based instruction, with a focus on teaching both specialized vocabulary (and the often-abstract concepts such words represent) and the specialized structures

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of language in academic speech and text—often referred to as elements of “academic language.” Such language is an essential tool for reading, writing, and critical thinking, one that presents a particular source of difficulty for many students; its instruction is gaining momentum but is only just beginning to amass empirical support for bolstering language ability, reading comprehension levels, and content area knowledge.⁴⁴ Most often, as implemented, academic language instruction uses text (the medium that is challenging for these learners) as its platform, anchoring the work in rich content for study. It also uses a sustained focus on written language (for example, developing extended research pieces and essays) and oral language (for example, using discussions and debates)—practices largely absent from elementary and secondary classrooms.⁴⁵ In these purposeful language-rich environments, students have access not only to texts, but also to collaborative experiences such as labs, demonstrations, and debates that promote academic conversation and knowledge building.⁴⁶ These activities appear to be especially important for students whose home and community

language is different from the academic language used in texts, assessments, postsecondary classrooms, and the workplace. Rigorous research that conforms to standards of best evidence is just beginning to investigate the effects of such an instructional approach on student outcomes.⁴⁷

Promoting language-based reading instruction requires some caution, however, because some educators and education leaders may interpret student data and needs and respond with a plan for “vocabulary instruction” that is too simplistic to address the problem meaningfully. Attending to the inherently complex instructional challenge of building up at-risk students’ background knowledge and academic language by adding word lists or spending a short time each day dedicated to “word study” falls far short of a true understanding of, or genuine response to, the problem.

Finally, coordinating language- and content-rich settings in all school buildings demands leaders who understand literacy and reading instruction. Although reading instruction has typically been an individual enterprise in the K–3 classroom—a task led by the teacher and relegated to one particular instructional block—it must become a more collaborative effort.⁴⁸ In the new instructional paradigm, principals would create a cohesive environment for building language and knowledge by ensuring ongoing professional development and providing time and space for collaborative efforts between classroom teachers from across content areas and resource staff.

Next Steps and Implications for Research

The challenge is to accelerate academic growth for students who show academic strength in word reading but are not

amassing the vocabulary and knowledge base they need for reading and academic success. By strengthening the language environments that are part of the everyday school experiences of students from non-English-speaking or low-income homes, educators can support children as they develop the knowledge-based competencies needed to access academic texts. Paying greater attention to sustained, comprehensive, and deep instruction, and using assessments that capture complex thinking and learning, will enable teachers to begin augmenting students' knowledge with the competencies that are crucial to this population's success in school.

Many system-level issues remain. For example, improved theories of reading comprehension for these at-risk populations can inform both assessment and instruction—beginning with the delineation of skills-based and knowledge-based reading competencies. The complexities of reading and the heightened demands that sophisticated texts make on students call for research on the socio-emotional characteristics and higher-order cognitive abilities that guide self-regulation, planning, and complex thought.⁴⁹ Both policy makers and practitioners would benefit from research that continues to develop and test approaches for pre-K-to-12 content-based literacy instruction focusing on the language

of text. Math, science, and history teachers at all levels, for example, would benefit from guidance on how to support students who are struggling to understand their course texts and other written materials.

For maximum effect, the effort to improve the learning environment should encompass both instruction (programs and curricula) and foundational school and classroom processes. For programmatic changes to take hold, researchers should examine how conditions in schools and in classrooms can sustain improvements. One study, for example, used a global, standardized measure of teachers' speech to investigate the quality of the classroom language environment. The study found that in the middle school English Language Arts classroom (one of several classes a student attends each day), the quality of teachers' speech can have effects on student reading achievement over the course of an academic year that are comparable to the effects found in intervention studies.⁵⁰ More research on how classroom conditions may lead to improvement is needed. Especially valuable would be studies that identify the types of teacher training and development that can help teachers create the language-rich environment needed to bolster the reading achievement of vulnerable populations.

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