

Examining the Link Between Poor Literacy Skills and Dropout: Effective Strategies to Improve Reading Proficiency for K–12 Students

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More than 1 million students drop out of high school every year in the United States (Alliance for Excellent Education, 2010), which equates to almost 7,000 students leaving school each day of a typical school year. These numbers are alarming to say the least, especially considering the positive impact of completing high school on an individual's future job prospects; students who do not graduate from high school earn a lifetime average of \$400,000 less than their peers, and this gap is even wider compared to those who go on to earn a college degree (Shore & Shore, 2009).

Moreover, the broad impact of dropout also expands to the national economy, influencing earnings by affecting the number of individuals qualified to serve in highly skilled professions. Estimates from the Alliance for Excellent Education (2013) suggest that substantially reducing dropout rates across the nation would generate billions of dollars in potential earnings and economic growth, as well as massive reductions in healthcare costs. Given this correlation, programs that are successful in reducing dropout have been described as “the best economic stimulus package” (Carlson, 2013).

Dropout is a complex, multifaceted issue for which the risks related to both the individual student and the surrounding system cannot necessarily be distilled into a short list. While efforts to quell dropout have largely focused on initiatives in middle and high schools—such as monitoring attendance and failing grades, offering “catch-up” courses, and ninth-grade academies (Kennelly & Monrad, 2007)—advocates for dropout prevention have called for emphasis on early skills and supports with the potential to bolster student success through high school (Shore & Shore, 2009). Indeed, research has documented a strong relationship between school completion and reading performance as early as third grade (Hernandez, 2011). This paper will consider the underlying sources of the link between reading proficiency and risk for dropout, then discuss critical factors that can contribute to improved reading performance throughout a student's school journey.

Why is reading performance so closely linked to graduation rates?

The link between reading performance and graduation rates is observable early in a student's academic career. Indeed, a longitudinal study that followed almost 4,000 students born between 1979 and 1989 found that those who were not reading proficiently by third grade were almost four times more likely to leave school without earning their diploma (Hernandez, 2011). This disparity was even more pronounced in students who were unable to master basic reading skills, for whom the risk of failing was six times higher than that of their proficient peers. The study also found that poverty exacerbates the effects of poor reading—students who struggled with reading and lived in neighborhoods of concentrated poverty were at greatest risk for dropout, furthering the possibility of future economic marginalization.

When considering the modality of education, we quickly realize that most schoolwork is presented in a written format from the early grades onward. Thus, reading difficulty often translates to disadvantages across school subjects, even when a student has personal strengths and relevant skills in subject-area domains. For example, a student may have strong computational skills but struggle with reading and comprehending word problems in early numeracy tasks. As the grades progress, students are confronted with expanding language demands of printed and online books, textbooks, and articles in their science or social studies classes (Snow & Biancarosa, 2003). Simply put, reading is a vehicle for ongoing study—and without it, gaining the new knowledge and vocabulary upon which continued academic learning is predicated may be further limited (Anderson, 1996).

Discussions focused on predicting dropout can devolve into academic terms that outline significant variables, risks, protective factors, and more. While the empirical findings from research are critical to inform pathways for effective interventions to prevent dropout, we need look no further than a single student's experience to understand why struggles with reading could increase the risk of stopping school all together. For this student, each day requires engaging with a ubiquitous but nonetheless challenging task that serves as a potential roadblock to other learning—and all the while, the same task may appear effortless to many of the student's surrounding peers. Needless to say, managing these daily circumstances and remaining engaged in the face of struggle requires ongoing grit and persistence. Consequently, reading challenges can be conflated with secondary

risks, such as frequent absenteeism or behavioral issues (Azzam, 2007; Kennelly & Monrad, 2007), that make school completion an even steeper uphill battle.

Addressing literacy needs throughout a student’s journey towards graduation

While the effects of reading struggles are often far-reaching, there is an upside: Efforts to increase reading success have the potential to positively influence a student’s long-term trajectory. With this in mind, schools looking to have a broad impact on student outcomes can implement systematic and sustainable long-term practices, such as incorporating high-quality instruction into the general education classroom to prevent significant reading difficulty, gathering an understanding of student needs through ongoing universal screening, collecting continuous data to intervene on the right skills at the right time, and remediating skill gaps and renewing learning in adolescent students. Although the concepts of prevention and early intervention are by no means unique, the following elements distill some of the key features necessary for an overall system of reading performance support across elementary and secondary settings.

1. Provide high-quality classroom instruction with an explicit, systematic focus on foundational reading skills in early grades to prevent reading difficulty

As suggested by the adage “prevention is better than cure,” channeling resources toward preventing an issue will generally yield better—and less costly—results than treating the problem once it is established. In kindergarten through third grade, effective instruction in the general education classroom is a critical global form of prevention, with instruction that explicitly teaches foundational word reading skills proving to be an essential element for preventing reading difficulties. Without a firm command of these foundational skills, many students spend the rest of school playing catch-up (Beck & Juel, 1995; Lyon et al., 2001). In 2000, Torgeson noted that “perhaps the most important single conclusion arising from the last 20 years of research on children who have specific difficulties learning to read is that these children experience a major bottleneck to reading growth in the area of skilled word identification (p. 56).” Simply put, the process of reading requires us to identify words and then access the meaning of those words while stringing them together to create understanding; when students struggle to identify words on the page or screen, this impedes their ability to read fluently, which diverts attention from making meaning out of the text (LaBerge & Samuels, 1974).

Providing students insight into the alphabetic principle—the concept that words are made up of sounds represented by letters in print—is key for developing word identification (Coyne, Kame'enui & Simmons, 2001). Facilitating an understanding of this principle is supported by fostering awareness of speech sounds in words, as well as letter sound correspondence and common spelling patterns through explicit and systematic instruction in phonological awareness and phonics (Ehri, 2004). At a more advanced level, methods to analyze the structure of words provide supplemental strategies for students to identify novel or complex multisyllabic words, and pairing this direct instruction with frequent opportunities to practice new skills and receive immediate scaffolding when needed is essential for learners predisposed to reading difficulties in the early grades. Moreover, as Connor and colleagues (2007) documented, code-focused instruction was associated with improved outcomes for second-grade students who started the year with strong letter-reading skills as compared to similarly strong peers who did not receive the same instruction. As we cannot know for whom this knowledge is most critical at the outset, teaching all students the code of English in an explicit, structured, and systematic manner serves as a key preventative approach (Moats, 2000).

Although effective word identification is a critical skill, it is not sufficient to singularly establish deep comprehension of text and engagement in the reading process. With regard to the development of students' oral and academic language, the integration of direct vocabulary instruction; support for word learning strategies such as identification of common prefixes, suffixes, and roots; and the provision of opportunities for verbal expression in a language-rich environment are also important (Corson, 1997; Baker et al, 2014). In addition, development of fluent reading and comprehension strategies must be embedded in the context of access to engaging and authentic literature, which dovetails with the need to develop disciplinary knowledge in order to support understanding in content-area subjects (Hirsch, 2003). Although all these pieces fit together, we must acknowledge the complexity of addressing such needs in the classroom, especially as students in any given class will present a range of knowledge and needs (Coyne et al., 2001). While it can be a challenge to meet these varied needs, leveraging technology allows us to provide elements of direct instruction, practice, and scaffolded support in an individualized manner for all students (Horn, 2015).

2. Establish a system of regular screening, monitoring, and early intervention to identify and address student needs in real time

While access to effective instruction serves as the first line of defense for all students, addressing student needs in the moment requires a systems-level approach informed by continuous data, which means screening all students across a school to identify who needs support and what that support should look like. Screening should occur multiple times a year to ensure that progress-monitoring keeps pace with students' evolving needs—especially in elementary settings—with the understanding that engaging in this continuous process catches students early (i.e., before they fall farther behind their peers). Indeed, screening data supports instructional and intervention planning at the beginning and middle of the year, as well as facilitating informed end-of-year transitions from one grade to the next. Having insight into individual and school-wide student needs can be helpful as students move from one building to the next and tends to take on particular significance during the transition from eighth to ninth grade.

Underlying assumptions of screening include the perception that it is quick, efficient, and takes a minimal amount of time away from instruction while giving educators the specific information they need to proceed (Torgeson, 2006). At the crux of this approach is the notion that targeting the right set of skills will help identify the students most likely to struggle without additional support; thus, screeners should gather data on skills associated with word recognition (for example, phonological awareness, letter sound knowledge, and word identification) and meaning (for example, vocabulary and comprehension), as skills associated with language and syntactic knowledge become increasingly predictive of reading proficiency as students get older (Foorman, Petscher & Herrera, 2018). Leaving these skills out of the screening process may create a gap in awareness of certain students' needs that becomes more widespread and impactful over time (Senechal, Ouellette & Rodney, 2006).

However, screening is not meaningful without a clear plan for how to intervene early when struggling students are identified—after all, interventions are most effective when they address specific skills informed by real-time data that is updated at regular intervals. The integration of ongoing data collection into the instructional process helps educators avoid taking more time for testing while still serving to inform them about what students know and where supplemental instruction or reinforcement are needed. This is another place where technology can provide a parsimonious

pathway between student needs and educator action; drawing upon real-time data to identify specific weaknesses and guide usage of targeted materials allows students to apply what they learned to new settings and modalities, such as writing and speaking.

3. Provide support for struggling adolescents by addressing skill gaps and fostering engagement through high-interest, age-appropriate content

Ideally, effective instruction and additional early intervention will address reading needs sooner rather than later, but the reality is that many students continue to struggle into secondary school. Although this can be because of a lack of explicit, structured instruction and targeted intervention to address key skill gaps early, a host of other factors might also be at play. These may include students' level of background knowledge or a shallow understanding of the academic language featured in more complex text, both of which can impede reading performance in ways that were not as heavily apparent in the early grades (Hirsch, 2003; Uccelli et al., 2015). At the secondary level, standards for learning are necessarily centered upon developing content subject knowledge, which tends to leave little time or opportunity for paying direct attention to remediating reading needs. This challenge is further magnified by the diverse needs of older students, the low number of trained reading specialists in upper grades, and the complex schedules of middle and high school (Snow & Biancarosa, 2003).

So, what can be done for middle- and high-school students who still struggle with reading? Although programs for older students often narrowly focus on providing remedial skills or compensatory strategies that facilitate access to subject-based content, the formula to effectively bridge the gap for older students must address *both* needs in tandem through an age-appropriate, efficient, and engaging format. Indeed, students interviewed after they had left school identified bolstering instruction for struggling readers and enhancing engagement in the school setting as two ways for schools to improve the student experience and increase their “holding power” (Azzam, 2007; Bridgeland, Dilulio & Morrison, 2006; Shore & Shore, 2009).

As with younger students, remedial support is key here to address gaps in basic or intermediate word-reading skills. In addition, instruction should target student awareness of sentence- and paragraph-level features, with direct instruction around elements of grammar and syntax that provide insight into the rules governing sentences and features of discourse. After all, it is these elements

that so frequently provide critical nuances in understanding what is read, as well as in supporting writing skills (Nagy and Townsend, 2012; Snow & Uccelli, 2009).

Because students may feel disengaged or unempowered following years of struggle, it is critical for instruction to feel authentically designed for the adolescent learner. Indeed, comprehension might be fostered by utilizing various forms of high-interest text and media—including videos, poems, and narrative and nonfiction texts—with content-access methods provided for students of all reading levels. However, given that not all students will approach the same text with equal levels of prior knowledge, we need to identify ways of bringing students into the conversation by moving them from learning spectators to learning participants. Pre-teaching key concepts and vocabulary and then encouraging students to share opinions and learnings after engaging with a passage has the potential to foster motivation and deeper comprehension development. Meanwhile, providing adolescents with continued opportunities to "choose their own learning" and demonstrate new knowledge will allow them to develop a renewed sense of ownership over their education, regardless of their current skill level or prior difficulties (Snow & Biancarosa, 2003).

Summary

Reducing dropout goes beyond simply increasing the number of students who receive their diplomas—more broadly, it is about equipping students with the knowledge and skills that will best serve them in the 21st century, first at school and later in the workforce. However, improving graduation rates by improving reading performance requires long-term, sustained coordination to implement systems of instruction that prevent reading difficulties in conjunction with ongoing screening, progress-monitoring, early intervention to address student needs, remediation of skill gaps, and re-engagement tactics focused on adolescent learners who have a history of academic struggle. This is not a simple or easy process, and the needs of learners cannot be addressed with a single-pronged approach. That said, continuous effort by teachers and thoughtful coordination by school leaders have the potential to transform more students into proficient, confident readers who can not only take their place on the graduation stage but move forward into productive and engaging careers.

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