

Identify Dyslexia to Increase Graduation Rates and Decrease Incarceration Rates

The ability to read and write is essential for an individual's success in school, employment and in life. Reading difficulties impact student's learning in all subjects including, Math, Sciences, English and Social Studies. As many as one in five individuals have dyslexia or a related learning disability. "Dyslexia is neurologically-based, often familial disorder which interferes with the acquisition and processing of language. Varying in degrees of severity, it is manifested by difficulties in receptive, and expressive language including phonological processing, in reading, writing, spelling, handwriting and sometimes in arithmetic. Dyslexia is not the result of lack of motivation, sensory impairment, inadequate instructional or environmental conditions but may occur together with these conditions" (International Dyslexia Association).

Dyslexia is a hidden disability which has no boundaries. Dyslexia affects individuals regardless of race, gender, culture and socioeconomic standing. Dyslexic individuals have average or above average intelligence but are often seen as being inattentive or lazy because they are not reading at grade level. Dyslexia often causes poor self-esteem, lack of confidence and a poor self-image of themselves as a student. Dyslexia is a life-long disability with no cure but with remediation and accommodations dyslexics can lead successful lives. Some dyslexic individuals also have AD/HD or other learning disabilities such as dysgraphia (handwriting disability), and dyscalculia (math disability). Dr. G. Reid Lyon, the former chief of the Child Development and Behavior Branch within the National Institute of Child Health and Human Development states that "substantial research supported by NICHD shows clearly that without systemic, focused and intensive interaction, the majority of children" with dyslexia "rarely catch up". Failure to develop basic reading skills by age nine predicts a lifetime of illiteracy. Unless these children receive appropriate instruction, more than 74% of the children entering 4th grade who are at risk for reading failure will continue to have reading problems into adulthood."

According to the National Right to Read Foundation, "people who read poorly often end up in low paying jobs, on welfare rolls or in jail, at a cost to the country of \$224 billion a year." Dyslexic individuals are "at risk of joining the ranks of the 90 million U.S. adults who are at best, functionally literate, meaning they can read just well enough to get by" (Star Telegram). Learn to read or go to jail is unfortunately a true statement for some. The Bureau of Justice Statistics Special Report on the Educational and Correctional Populations by Caroline Wolf Harlow, PhD. states that the percentage of state prison inmates who have not completed high school or obtained their GED include 66% of inmates with a learning disability and 59% with a speech disability (can be a symptom of dyslexia). According to the Citizens Alliance on Prisons, the state of Michigan incarcerates nearly 44,000 people and spends \$2 billion a year on corrections. Education Week states that 75 percent of the crimes committed in the United States are committed by high school dropouts.

"Michigan's high school graduation rate is almost 4 percent below the national average and is trending downward, according to the latest annual report on graduation rates from Education Week, a specialty newspaper for educators. Michigan graduated 70.9 percent of public school students in 2010, ranking the state 40th overall" (Mlive.com). We have a choice to make here in Michigan. We are currently facing a crisis where we are increasingly spending more money on incarcerating people than we are on educating them. We have an opportunity to make a bold move in reversing this vicious cycle. We can choose to reallocate millions of dollars currently being spent on corrections and launch a daring new initiative to ensure that all of Michigan's students are reading by the 3rd grade through innovative programs to assess and remediate dyslexia and related learning disabilities.

In order to improve the graduation rate and lower the incarceration rate in Michigan we must tackle the issue of dyslexia which affects approximately 20% of the population. Dyslexia laws must be passed by the Michigan Legislature to identify and remediate dyslexia in students so they can become productive and successful citizens. The State of Michigan needs to make a financial commitment to ensure the success of this endeavor. This can be accomplished by:

1. State recognition of dyslexia as a learning disability and assessment of all students. Test all new students by the end of kindergarten and test all transfer students as they enter their new school. Those students who are identified as being at risk for dyslexia must receive immediate, appropriate and continuing instruction.
2. Provide training for all teachers and certify (additional training) a dyslexia teacher/specialist for each school. Establish dyslexia and learning disability instruction in the colleges and universities within the state who provide teaching degrees.
3. Implement technology to aid dyslexic students such as text to speech software, books on tape, iPads, Kindles, etc.

If you have any questions or comments, please feel free to contact Anne Kloth or Lawrence Kloth Jr. at 616 443-6298 or annesk1976@mac.com.

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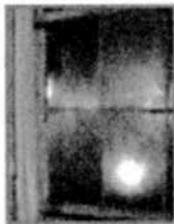
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Letter to Wrightslaw from Guy McBride, North Carolina School Psychologist

Embargo Against Social Promotions: Retention Revisited

**"About one-third of N.C. students are retained at
least once before ninth grade."**

Print this page

I am a school psychologist with 28 years of experience. I have spent twenty of those years working in a western North Carolina public school system.

As states move to implement a the President's proposed embargo against "social promotion," many are also implementing bars to promotion (retention) if children do not meet grade level standards.

On April 1, 1999, North Carolina became one of those states.

North Carolina needs about 7000 teachers next year. North Carolina will produce about 3500 job applicants. So in the face of the greatest teacher shortage in the past fifty years, what have we done? We've made our kids accountable for their own education. Coincidence, I'm sure, but still troubling.

Based on earlier test norms, children whose test results fall at Level II (below standard and therefore not eligible for promotion under the new policy) may be as high as the 40th percentile (in the average range).

You may wonder why the state wants to retain average kids. Since the state made teacher pay partially dependent on pupil performance, teachers have been learning how to teach (to) the test. For example, in my county the percentage of students who failed to meet the standard in 1998 ranged from 10% (an "exemplary" school) to 50% based on overall scores. While we know that the below average child will always be with us, the state's goal is to make all children above average—at least until the test is renormed.

About One-third of N.C. Children Retained

Phil Kirk, chairman of the state board of education, asked the North Carolina Research Council, located at UNC Chapel Hill, for a briefing paper on the effects of retention. According to this paper, **about a third of N.C. children are retained at least once before ninth grade.** These new standards (based on last year's scores) will almost certainly result in some schools retaining that many or more at a single grade level.

This wouldn't be so alarming if it benefited the children. Unfortunately,

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the same policy briefing confirmed what we already know.

Retention Is Not the Solution

Even under the best of circumstances, the benefits of retention erode after three years. In many cases, children are hurt. Children retained in kindergarten and first grade are more likely to be hurt. Children who are slow learners or disabled are more likely to be hurt.

Children who are hurt by the schools are more likely to drop out at age 16. This undermines our goal of a better educated population.

Retention is inherently discriminatory. More poor children, black children, and disabled children will be retained.

There are more effective methods to increase performance **without hurting our most fragile and vulnerable children.** Just one example is implementation of summer school, a state program that dramatically reduced retention in the early part of this decade

Despite this report, attempts to intimidate principals into retaining vast numbers of students seem to be escalating.

Originally, DPI seemed to be relying solely on a requirement for principals to report all children who were "socially promoted" as a deterrent. Apparently, this was too subtle for some because the State News Service on April 2 reported, "State School Board Chairman Phil Kirk says the board will target any district that tries to pass students who fail to meet the standards. But Kirk does say that there will be an appeals process for students who don't pass the tests but can earn passing grades."

An appeals committee will be formed under the policy, and the parents of disabled children will be non voting members. (How this differs substantively from regular parents' right to present information showing their child really is at grade level, I cannot say.)

The burden will be on the teachers and parents to show that a child is really at grade level despite low test scores —not on whether the retention is likely to be of benefit to the child or even whether it may be harmful.

Principal Retains Absolute Power to Grade and Place

The non voting parents of a disabled child will share their evidence with people who can only make a recommendation to the principal. **The principal retains his or her absolute power under the law to grade and place.** Absolute, at least, unless he or she is a wee bit fearful of being "targeted" by the state board of education for promoting children who do not meet the requirements.

Parents of disabled children may, under the policy, convene the IEP Team and ask that the promotion standard be waived. However, waiving the standard does not necessarily mean the child will be promoted.

As the policy is written, a principal may still retain a child for some other reason. The state has not clarified the implications of that exemption. The policy mandates that children exempted be provided with a

C)
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"functional curriculum."

However, to get a diploma, the child must complete the standard course of study. The policy limits educational interventions available to all students who fail the test to those disabled children enrolled in the standard course of study. It remains to be seen whether the federal government will sign off on those consequences. Right now, a decision to exempt still carries with it some potentially heavy penalties.

Retention is not the only part of this policy that threatens children.

State Policy That Pits Educators Against Parents

The threat of retention based on a single test score is aversive.

When a state policy pits educators against parents, the results are never beneficial. The warnings are already visible. Some **children with anxiety disorders are terrified to come to school** because their teachers told them that if they did not improve their scores on a pre-test given last fall, they might be retained.

These children are like bellwethers, signaling a new flock of children with test anxiety and school phobia.

When President Clinton spoke about ending social promotion last January, I do not believe he was suggesting a **"one coffin fits all" educational intervention based on a punitive philosophy**. Yet in the manner our state leaders have implemented this policy, end of grade test scores have become more important than the child.

Dr. Meany, consultant for the Exceptional Children's Division of DPI, said they were fearful if exceptional children were excluded from the retention standard, "no one" would be accountable. In the ABC Plan, the state already made teachers accountable for end of grade scores.

This policy actually marks the second phase, wherein students and their parents will be held answerable for the results of the child's performance on end of year tests.

It is hard to believe that the state would sacrifice our weakest, most fragile, and most vulnerable students so the majority of students will demonstrate higher test performance. Yet, without any evidence that retention helps our slow and disabled children, only one conclusion seems possible: **Our state leaders believe that by punishing slow kids, the other kids will work harder.**

Proposed Changes

First, **students who fail to meet the standard should be offered, and the state should fund, an instructionally sound intervention** as an alternative, not as an add-on, to retention (For a very small percentage of students, retention may be appropriate, e.g., for child who because of temporary health problems missed most of his school year.)

Second, if parents disagree with the option offered, the appeals committee should have the discretion to suggest an instructionally sound alternative, not just offer a "PASS/FAIL" recommendation that is not binding.

Third, the third tier of state testing, administered after a child has been given instructionally sound educational assistance, should be used to determine the child's needs for the coming year—not as a final hurdle for him to overcome.

Fourth, principals should be afforded the opportunity to report another category of child—children not meeting the standard who were placed in an upper grade with appropriate (sound) instructional interventions. Only if there is clear evidence that a child will be helped by an intervention, or if parents decline appropriate alternative instructional interventions (such as summer school), should retention be used.

In the case of a disabled child, I believe the IEP Team, not an Appeals Committee, should be making those decisions.

Because the state Department of Public Instruction has not proposed this kind of approach, one way for us to bring about change (short of going to due process or engaging in litigation) is to write our state legislators.

Check N.C. Policy

I ask North Carolina parents to read the [Policy](#) for themselves—this is too important just to take my word for what the state is proposing.

The state's [FAQ](#) on the policy offers a fascinating insight into the reasoning behind this policy.

Although many of our legislators have e-mail addresses, I recommend writing them via the U.S. mail, calling them, or meeting with them in person. Their names, addresses, and phone numbers are available from the public library or via the Internet.

Go to <http://www.ncga.state.nc.us/>.

Click on "Geography and Representation," when the next page loads, click on "Representation," and then scroll down to the bottom of the "Representation" page. All you need is your zip code plus 4.)

I recommend soliciting support from and offering your support to advocacy organizations like the [Learning Disabilities Association in North Carolina](#) and the [Exceptional Children's Assistance Center](#)

Together, we can make a difference.

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Warning Signs of Dyslexia

If a child has 3 or more of the following warning signs, encourage that child's parents and teachers to learn more about dyslexia.

In Preschool

- delayed speech
- mixing up the sounds and syllables in long words
- chronic ear infections
- stuttering
- constant confusion of left versus right
- late establishing a dominant hand
- difficulty learning to tie shoes
- trouble memorizing their address, phone number, or the alphabet
- can't create words that rhyme
- a close relative with dyslexia

In Elementary School

- dysgraphia (slow, non-automatic handwriting that is difficult to read)
- letter or number reversals continuing past the end of first grade
- extreme difficulty learning cursive
- slow, choppy, inaccurate reading:
 - guesses based on shape or context
 - skips or misreads prepositions (at, to, of)
 - ignores suffixes
 - can't sound out unknown words
- terrible spelling
- often can't remember sight words (they, were, does) or homonyms (their, they're, and there)
- difficulty telling time with a clock with hands
- trouble with math
 - memorizing multiplication tables
 - memorizing a sequence of steps
 - directionality
- when speaking, difficulty finding the correct word
 - lots of "whatyamacallits" and "thingies"
 - common sayings come out slightly twisted
- extremely messy bedroom, backpack, and desk
- dreads going to school
 - complains of stomach aches or headaches
 - may have nightmares about school

In High School

All of the above symptoms plus:

- limited vocabulary
- extremely poor written expression
 - large discrepancy between verbal skills and written compositions
- unable to master a foreign language
- difficulty reading printed music
- poor grades in many classes
- may drop out of high school

In Adults

Education history similar to above, plus:

- slow reader
- may have to read a page 2 or 3 times to understand it
- terrible speller
- difficulty putting thoughts onto paper
 - dreads writing memos or letters
- still has difficulty with right versus left
- often gets lost, even in a familiar city
- sometimes confuses b and d, especially when tired or sick

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Ensuring a healthy start. Promoting a bright future.

By Shane R. Jimerson, PhD, NCSP, Sarah M. Woehr, & Amber M. Kaufman, MA
 University of California, Santa Barbara

Grade retention, also known as nonpromotion, flunking, failing, being held back, or the gift of time, refers to a child repeating his or her current grade level again the following year. Whether used to address low performance and/or behavior problems, research generally has not found favorable achievement or adjustment outcomes for students who are retained.

Nevertheless, retention rates have been rising. This trend appears to be heavily influenced by the recent “reform” movement emphasizing national or state-wide educational grade-level standards and accountability (the No Child Left Behind Act of 2001) and the accompanying grade-level tests to determine which students are promoted to the next grade.

Whatever the reason, if retention is suggested for your child, it is vital that you as a parent make sure you know what options are available and are involved in making decisions about his or her education. By working together, parents and educators can discuss and identify specific strategies to help ensure the educational success of your child.

The Retention Dilemma

Sometimes children are recommended for retention when their academic performance is low or if they fail to meet grade-level performance standards established by the district or state. Some children may be recommended for retention if they seem socially immature, display behavior problems, or are just beginning to learn English. Occasionally, students who have missed many school days because they were ill or because of frequent moves are recommended for retention.

Research indicates that *neither* grade retention nor social promotion (the practice of promoting students with their same age-peers although they have not mastered current grade level content) is likely to enhance a child’s learning. Research and common sense both indicate that simply having a child repeat a grade is unlikely to address the problems a child is experiencing. Likewise, simply promoting a student who is experiencing academic or behavioral problems to the next grade without additional support is not likely to be an effective solution either.

When faced with a recommendation to retain a child, the real task is not to decide to retain or not to retain but, rather, to identify specific intervention strategies to enhance the cognitive and social development of the child and promote his or her learning and success at school.

Given the evidence indicating that grade retention, when compared with social promotion of similar children, is an *ineffective and possibly harmful intervention*, “promotion plus” (i.e., combining grade promotion and effective, evidence-based interventions) is most likely to benefit children with low achievement or behavior problems.

Too often, anecdotal evidence, clinical experience, and folklore overshadow the results of empirical research. But what does research show? Is retention effective? The following information, taken from research during the last 100 years, can help parents better understand the possible effects of retention on their child and advocate for effective intervention strategies.

Effects of grade retention. The body of research on retention indicates that:

- Initial academic improvements may occur during the year the student is retained. However, many research studies show that *achievement gains decline* within 2–3 years of retention. This means that over time, children who were retained either do not show higher achievement, or sometimes show lower achievement than similar groups of children who were not retained. Without specific interventions, most retained students do not catch up.
- In adolescence, retained students are *more likely to experience problems* such as poor interactions with peers, disliking school, behavior problems, and lower self-esteem.
- Students who were retained are *5–11 times more likely to drop out of school*. The probability is even higher for students who are retained more than once. Actually, grade retention is one of the most powerful predictors of high school drop out.
- For most students, grade retention had a *negative impact on all areas* of achievement (e.g., reading, math, and oral and written language) and social and emotional adjustment (e.g., peer relationships, self-esteem, problem behaviors, and attendance).
- A study of sixth graders’ perceptions indicated that they consider retention as one of the *most stressful* life events.
- Retention *may help* students who have missed many days of school, but only if their attendance improves and if the child will not

be considerably older than the other students. At this time, however, there are *no specific indicators* that predict which children could benefit from retention.

Alternative strategies. However, research *does* provide evidence that supports the effectiveness of other educational interventions. The following are evidence-based alternatives to grade retention and social promotion that better address academic and behavior problems:

- Parental involvement in children's schools and education through frequent contact with teachers, supervision of homework, and ongoing communication about school activities.
- Age-appropriate and culturally sensitive instructional strategies to accelerate progress in all classrooms.
- Early developmental programs and preschool programs to enhance language and social skills.
- Systematic methods to monitor progress, identify strengths and weaknesses, and identify the most effective methods of instruction.
- Early reading programs; that is, many low performing students have reading problems, and it has been found that developmentally appropriate, intensive, direct instruction strategies have been effective in promoting reading skills of at-risk students.
- School-based mental health programs to promote the social and emotional adjustment of children; for instance, addressing behavior problems has been found to be effective in improving academic performance.
- Student support teams with appropriate professionals to assess and identify specific learning or behavior problems, design interventions to address those problems, and evaluate the efficacy of those interventions.
- Behavior management and cognitive-behavior modification strategies to reduce classroom behavior problems that interfere with learning.
- Extended year, extended day, and summer school programs that focus on improving the development of academic skills.
- Tutoring and mentoring programs with peer, cross-age, or adult tutors who focus on promoting specific academic or social skills.
- Comprehensive school-wide programs to promote the social and academic skills of all students.

Considering their diverse needs, there is no single intervention that will effectively address the specific needs of low achieving students. Rather, systematic evidence-based interventions should be selected to facilitate the academic and socioemotional development of students at risk of school failure.

What Parents Can Do to Help

Parents know their children well and can provide much needed insight into their children's learning. Therefore, it is important for parents, teachers, and other educational

professionals to work together. Finding out about school problems early can help parents and teachers to collaborate to spare children the feelings of failure. Addressing problems early improves chances for success. Parents can help by:

- Discussing concerns as they arise with the teacher. It is important to know what assignments your child is expected to do and what type of work is difficult for your child to understand and complete.
- Asking your child's teacher what help is being provided to your child and what you can do at home to help him or her succeed.
- Helping your child with homework by asking to see his or her assignments and creating a quiet time and place to study.
- Making sure your child is rested and ready for school each day. It is important that your child gets plenty of sleep, eats a nutritious breakfast, comes to school on time, and receives appropriate medical care.

Where to Get More Help

While it can be frustrating if your child is having problems at school, there are many people who can help. Although retention may appear to be the simple answer, professionals at your child's school can give you and the child's teacher some effective alternatives to help your child do better. They may also suggest conducting evaluations to find out what specific strengths and weaknesses your child has, how he or she best learns, and if he or she may benefit from special education. You can also contact people at school who can work with your child if he or she is experiencing academic and/or social problems, including the school psychologist, social worker, counselor, reading specialist, school nurse, special education team, or principal.

Remember, retention may be more commonplace today, but there is no evidence that it is effective. Rather, there are many other alternatives to helping children who are experiencing difficulties in school. By asking questions and working collaboratively with school personnel, you can help your child succeed.

Resources

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Rimm, S. (1996). *Dr. Sylvia Rimm's smart parenting: How to raise a happy, achieving child*. New York: Crown. ASIN: 0517700638.

Websites

The National Association of School Psychologists—
www.nasponline.org

Beyond Grade Retention and Social Promotion—
www.education.ucsb.edu/jimerson/retention

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The National Association of School Psychologists (NASP) offers a wide variety of online resources to parents, teachers, and others working with children and youth that promote effective strategies, greater collaboration, and improved outcomes on a wide range of psychological, social/emotional, and academic issues. Visit the NASP website (www.nasponline.org) or use the direct links below to access information that can help you improve outcomes for the children and youth in your care.

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www.nasponline.org/advocacy

Response to Intervention—Information, resources, and tools related to Response to Intervention
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Alternatives to Grade Retention

Because grade retention has proven to be an ineffective intervention, educators should incorporate alternative interventions to help low-achieving students succeed.

By Shane R. Jimerson, Sarah M. W. Pletcher, and Mariellen Kerr

Despite the current policies of the No Child Left Behind Act (NCLB), a greater number of students are being left behind because of grade retention than ever before. Grade retention in the United States has increased in the past 25 years despite research that fails to support its effectiveness as an intervention. Recent estimates indicate that at least 2 million U.S. students are held back every year (Hauser, Pager, & Simmons, 2000). Moreover, evidence from research and practice highlights the importance of implementing effective alternatives that promote the social and cognitive competence of all students, thereby enhancing educational outcomes.

Given the accumulating evidence that grade retention is an ineffective and possibly harmful intervention, it is imperative that school administrators advocate for "promotion plus" policies that depend on effective, evidence-based interventions. The issue for secondary school educators is twofold. Not only must educators determine whether

retention is appropriate for a given student, they also need to address the negative academic, social, and emotional consequences for students who were retained in earlier grades. Very often the student's original difficulties persist, or more likely worsen, as their school career progresses.

The Evidence Regarding Retention

Temporary gains. Although initial academic improvements may occur during the year the student is retained, numerous studies show that achievement gains decline two to three years after retention. Eventually, students who are retained either do not perform better or often perform worse than similar groups of students who were not retained. Without specific, targeted interventions that address the needs of low-achieving or misbehaving students, most retained students do not catch up to their nonretained peers (Jimerson, 2001).

Negative impact on achievement and adjustment. Research has found

that for most students, grade retention had a negative effect on all areas of achievement (e.g., reading, math, and language) and social and emotional adjustment (e.g., peer relationships, self-esteem, problem behaviors, and attendance). Although most retained students demonstrate poor reading skills, research reveals that the effect of retention on reading is the most negative. Notably, research that examined students' perceptions of stressful life events indicates that sixth graders rate retention as one of the most stressful life events, similar to the loss of a parent and going blind. In addition, during adolescence, retained students are more likely to experience such problems as poor peer interactions, dislike of school, behavior problems, and poor self-concept.

Retention and dropout. Students who were retained are much more likely to drop out of school. A recent, systematic review of research exploring dropping out of high school indicates that grade retention is one of the most powerful predictors of dropping out of high school (Jimerson, Anderson, & Whipple, 2002).

Negative long-term effects. No evidence of a positive effect on either long-term school achievement or adjustment exists for students who

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have been retained. In fact, by adolescence, experiencing grade retention is predictive of such health-compromising behaviors as emotional distress, low self-esteem, poor peer relations, smoking, alcohol use, drug abuse, driving or engaging in sexual

activity while under the influence, early onset of sexual activity, suicidal intentions, and violent behaviors (Jimerson, Anderson, & Whipple, 2002). In addition to lower levels of academic adjustment in grade 11 and a greater likelihood of dropping out of

high school, retained students are also less likely to receive a diploma by age 20. As adults, individuals who repeated a grade are more likely to be unemployed, living on public assistance, or in prison than adults who did not repeat a grade (Royce, Darlington, & Murray, 1983).

CASE STUDY: FIRST-GRADE FAILURE, HIGH SCHOOL STRUGGLES

Kevin entered kindergarten shortly after his fifth birthday with no prior preschool experience. His parents did not live together. Both struggled to make ends meet but shared responsibility for Kevin and his sister. Throughout kindergarten, Kevin lagged behind his peers in a number of areas, including oral language use, the ability to follow directions, fine motor development, and letter and number identification. His teacher expressed concerns about his personal hygiene and frequent absences but noted that Kevin wanted to please, was helpful and cheerful, and responded well to praise.

An instructional support team developed strategies to help Kevin achieve the basic kindergarten objectives. He did well enough to move on to first grade but continued to struggle and fall behind despite extra support from his first-grade teacher. Because of his academic deficits, his teacher recommended retention. He repeated first grade, with the same teacher and seemed to make good progress.

Unfortunately, Kevin's improvement did not last. By the time he entered ninth-grade, he had a long history of difficulties and his report cards and test scores indicated lags of one to three years in grade-level achievement. Although he had been evaluated for special education services twice, he had not qualified for service because his ability scores were too low to meet learning disability discrepancy criteria and too high for classification of mental retardation. Over time, Kevin displayed an increasing pattern of behavior problems and received numerous disciplinary actions, including several suspensions, related to having difficulties with classmates. His high school student support team was concerned about Kevin's hygiene, his attendance, his "Goth" or antisocial persona, and signs of depression. He was described as withdrawn and visibly disdainful of school and his ability to achieve.

Simple strategies were not adequate to address Kevin's now-entrenched problems. The student support team devised a comprehensive, targeted plan to remediate gaps in Kevin's learning and facilitate his social and emotional adjustment. They also expanded the team to include community resources (e.g., a family social worker and an after-school program leader). After conducting a comprehensive assessment of Kevin to rule out a disability (once again, he did not qualify for special education), the team developed specific interventions and support strategies to address his poor reading and math skills, attendance problems, classroom behavior problems, interaction difficulties with peers, and mental health concerns.

Addressing the poor reading skills required targeted interventions that were designed to build upon Kevin's current skills. Specific strategies included enrolling Kevin in a functional reading skills class, using direct instruction in high-interest materials (car and sports magazines), and providing after-school tutoring from a community volunteer (a male college student). It was initially very difficult to engage Kevin in these interventions because of his long-standing resistance to schoolwork. However, he ultimately formed a positive relationship with his tutor who was able to encourage him to participate in the reading class at school. To enhance Kevin's math skills, similar strategies were used that, once again, focused on skills that Kevin could find of immediate use in daily activities. Finally, Kevin was referred to a weekend support program aimed at students who are at a high risk of dropping out. The program provided group counseling and opportunities to earn money while being engaged in work around the community.

The school psychologist worked with Kevin to help him develop effective problem-solving strategies and self-monitoring techniques to reduce his problems interacting in the classroom and with peers. She also worked with Kevin and his family to identify appropriate mental health services in the community that would address his depression and self-esteem issues.

Continual progress monitoring of specific skill areas indicated monthly gains, reflecting positive effects of the targeted interventions. Likewise, Kevin's attendance improved and his behavior problems decreased. It will likely take more time to see noticeable improvements in his relationships with peers and his mental health. Ongoing progress monitoring will be essential in determining which target areas continue to improve and which require alternative strategies.

High school programs can interrupt the cycle of failure that often leads students like Kevin to drop out. However, Kevin's student support team recognizes that the challenge would have been far less daunting if more appropriate early intervention strategies had been implemented when Kevin was in first grade instead of merely sending Kevin through the same instructional program again. As a result, the team worked with their administrator to initiate a task force among elementary and secondary principals to address appropriate alternatives to grade retention.

The Evidence for Alternative Strategies

There is clearly no single silver bullet intervention that will effectively address the specific needs of all low-achieving students. Systematic, evidence-based interventions should be used to facilitate the academic and socioeconomic development of low-achieving students.

Algozzine, Ysseldyke, and Elliott (2002) provide a review of research-based tactics for effective instruction, and Shinn, Walker, and Stoner (2002) provide a more extensive discussion of interventions for academic and behavior problems. It is important to note that the literature indicates that effective practices for at-risk students tends to be very similar to the best practices of general education but at a more intense, individualized level. The following strategies are examples of evidence-based alternatives to grade retention and social promotion:

- Parent involvement through frequent contact with teachers, supervision of homework, and continual communication about school activities that promote learning. Culturally appropriate outreach, in the parents' native language, allows parents who face cultural or language barriers to feel comfortable and work with the school to support their children.
- Age-appropriate and culturally sensitive instructional strategies to accelerate progress in the classroom. Tutoring programs and individual enrichment strategies may be valuable tools in advancing the skills of students.
- Systematic assessment strategies, such as continual progress monitoring and formative evaluation, that enable ongoing modification of instructional efforts. Effective programs frequently assess student progress and adapt instructional strategies to the results of these assessments.
- Reading programs that provide developmentally appropriate, intensive, and direct instruction strategies to promote the reading skills of low-performing students with reading problems.

- School-based mental health programs that promote the social and emotional adjustment of children. For example, addressing behavior problems has been found to be effective in facilitating academic performance (Zins, Weissberg, Wang, & Walberg, 2004).
- Student support teams with appropriate professionals to assess and identify specific learning or behavior problems, design interventions to address those problems, and evaluate the efficacy of those interventions.
- Behavior management and cognitive-behavior modification strategies to reduce classroom behavior problems.
- Extended year, extended day, and summer school programs that facilitate the development of academic skills.
- Tutoring and mentoring programs with peer, cross-age, or adult tutors that promote specific academic or social skills.
- Comprehensive schoolwide programs

to promote the psychosocial and academic skills of all students. Too often, remedial and special education services are poorly integrated with the regular education program. Therefore, collaboration and consistency among regular, remedial, and special education programs are essential.

It is essential to address the needs of students by providing effective interventions that specifically target deficits and build upon strengths. Too often, students fall behind in middle level or high school and do not make adequate progress toward graduation. Ultimately, many of these students drop out of high school. Students who were retained in elementary school often display behavior problems and attendance problems during middle level and high school. It is important to carefully consider both the academic and the social-emotional needs of all students who have been retained

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HOW CAN PARENTS HELP STUDENTS AVOID RETENTION?

Parents can provide much needed insight into their children's learning needs, and administrators should encourage parents to do the following:

- Provide a time and a place at home for their child to complete homework.
- Work with teachers to address the needs of their child and identify opportunities to enhance learning outside the classroom.
- Discuss concerns as they arise. Parents should inform teachers if assignments include content that their child does not understand. This helps teachers provide appropriate instruction.
- Be aware of their child's assignments and homework and provide appropriate monitoring to ensure that these are completed.
- Advocate for their child and share the child's strengths and aspirations.
- Make certain that their child gets plenty of sleep, eats a nutritious breakfast, comes to school on time, and receives appropriate medical care.

and to establish support plans that promote their educational success.

Strategies for School Administrators

Administrators who are committed to helping all students achieve academic success and reach their full potential must discard such ineffective practices as grade retention and social promotion in favor of "promotion plus" strategies—specific interventions that are designed to address the factors that place students at risk for school failure. It is important to engage student support personnel—the school psychologist, the social worker, the counselor, and the nurse—to develop and implement alternative strategies to retention because they will work closely with the at-risk students as well as with their teachers and parents.

Implement early identification procedures to promote cognitive and social competence. Systematic procedures to identify needs at the beginning of each academic year (and at regular intervals throughout the academic year) provide the foundation for effective intervention efforts. The cumulative risk associated with ongoing achievement and behavior problems demonstrates the

importance of providing targeted to students early to improve their chances for success.

Collaborate with teachers and parents to meet student needs. Encourage parents to be involved in their children's education. Because parents know their children well and can interact with the teacher, there are many things that parents can do to help. It is important for parents, teachers, and other educational professionals to work together. For instance, parents may emphasize the importance of education and provide a designated space at home for completing assignments. Parental monitoring of activities may be valuable in helping

students focus on their schoolwork. Teachers and parents can be collaborative allies in educating youth.

Use research to establish policies and inform decisions. Research overwhelmingly indicates that grade retention is an ineffective, and possibly harmful, intervention. Therefore, staff training should emphasize evidence-based, alternative interventions that promote student academic and socio-emotional success. Establish school policies that facilitate and support students' cognitive and social competence.

Emphasize the importance of elementary school experiences on middle level and high school success. Education is a cumulative experience; early experience unequivocally influences subsequent success. Administrators who communicate with educational professionals across the K–12 spectrum offer important insights regarding the outcomes of those students who are retained in elementary school. Often the strongest proponents of grade retention are those who only witness the short-term effect (e.g., kindergarten or first-grade teachers), and the strongest opponents are those who experience the deleterious long-term outcomes (e.g., high school teachers, school psychologists, counselors, and administrators). Therefore, it is important for administrators to exchange information across elementary, middle

FACTORS TO CONSIDER WHEN RETENTION IS RECOMMENDED

If retention is recommended for a particular student, consider the following factors to determine appropriate intervention strategies:

- Previous and current assessments of academic skills and behaviors
- Previous intervention efforts and the effectiveness of those interventions
- Previous retention
- Current supports and the duration and effectiveness of those supports
- Community resources
- The student's family context (e.g., frequent moves, divorce, poverty, abuse)
- The extent or likelihood of parent involvement in school
- The student's after-school life and peer group
- Health issues
- Risk behaviors

level, and high school constituencies within a given district or community and emphasize the long-term effect of early intervention efforts.

Lead by example and present the empirical evidence. Present empirical evidence that supports the intervention strategies made available to students at the school. Providing this information to school board members, teachers, and parents will not only communicate essential information regarding the relative effectiveness of selected intervention strategies but also serve as an exemplar for the importance of presenting the empirical evidence.

Access community resources.

Collaborate with local child and family service agencies to meet the needs of struggling students and their families. There are numerous challenges facing these students and the contributions of other professionals in the community are essential in helping students succeed at school. **PL**

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Grade Retention

Achievement and Mental Health Outcomes

By Gabrielle E. Anderson, Angela D. Whipple, & Shane R. Jimerson, NCSP
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Introduction

In response to increasing pressures to improve school performance, legislation and policies regarding grade level promotion standards have been developed at the national, state and district levels. The result has been a call for the “end of social promotion” and a renewed emphasis on grade retention as an educational remedy for underachieving children. Often it is thought that the “gift” of another year in the same grade will give the child reinforcing instruction as well as provide another year for the development of grade level educational skills. However, educational research fails to support grade retention as an effective intervention. In fact, grade retention has been associated with a host of negative outcomes on a variety of levels. Of particular concern is whether educators are addressing the academic, behavioral and mental health needs of children when recommending grade retention.

Retention refers to the practice of requiring a student who has been in a given grade level for a full school year to remain at that level for a subsequent school year (e.g., “flunking”). It is estimated that currently over 2.4 million (5-10%) students are retained every year in the United States. On the rise for the past twenty-five years, retention today is estimated to cost over 14 billion dollars per year to pay for the extra year of schooling.

On the individual level, many more boys are retained than girls; more minority students are retained than White students. Retained students are more likely to display aggressiveness, to have a history of suspension or expulsion, to act out in the classroom, or display behaviors associated with Attention Deficit Hyperactivity Disorder and Conduct Disorder. Children who are learning disabled are also more likely to be retained — and in fact are likely to be so diagnosed immediately following the retention. In addition to poor academic achievement and low standardized test scores, retained students are likely to have a history of numerous school changes and absenteeism. Large family size, low parental education and low family involvement are also related to retention.

Research: Retention Is Ineffective, Maybe Harmful

Systematic reviews and meta-analyses examining research over the past century (studies between 1911–1999) conclude that the cumulative evidence does not support the use of grade retention as an intervention for academic achievement or socio-emotional adjustment problems (Holmes, 1989; Jimerson, 2001). Recent comparisons of academic achievement (i.e., reading, math, and language) and socio-emotional adjustment (i.e., emotional adjustment, peer competence, problem behaviors, attendance and self-esteem) between retained and matched comparison students, reported in 19 studies published during the 1990s, yielded negative effects of grade retention across all areas of achievement and socio-emotional adjustment (Jimerson, 2001).

Research also fails to find significant differences between groups of students retained early (kindergarten through 3rd grade) or later (4th through 8th grades). What is most important is that, across studies, retention at any grade level is associated with later high school dropout, as well as other deleterious long-term effects.

Typically, the test scores of students who are retained in the primary grades may increase for a couple of years and then decline below those of their equally low-achieving but socially promoted

peers. The temporary benefits of retention are deceptive, as teachers do not usually follow student progress beyond a few years.

Long-term outcomes: Studies examining student adjustment and achievement through high school and beyond report assorted negative outcomes associated with grade retention. When comparing retained students with similarly under-achieving but promoted peers, research indicates that retained students have lower levels of academic adjustment in 11th grade and are more likely to drop out of high school by age 19 (Jimerson, 1999). In fact, retention was found to be one of the most powerful predictors of high school dropout, with retained students 2 to 11 times more likely to drop out of high school than promoted students (Jimerson, Anderson, & Whipple, 2002). Furthermore, the retained students are less likely to receive a high school diploma by age 20, receive poorer educational competence ratings, and are also less likely to be enrolled in post-secondary education of any kind. These youth also receive lower educational and employment status ratings and are paid less per hour at age 20 (Jimerson, 1999).

Impact of Retention on Student Mental Health

As teachers and administrators are pressured to implement policies designed to “end social promotion,” students are threatened with retention if they do not meet academic standards or perform above specified percentiles on standardized tests. It is unclear if this threat is effective in motivating students to work harder. However, this pressure may be increasing children’s stress levels regarding their academic achievement. Surveys of children’s ratings of twenty stressful life events in the 1980s showed that, by the time they were in 6th grade, children feared retention most after the loss of a parent and going blind. When this study was replicated in 2001, 6th grade students rated grade retention as the single most stressful life event, higher than the loss of a parent or going blind (Anderson, Jimerson, & Whipple, 2002). This finding is likely influenced by the pressures imposed by standards-based testing programs that often rely on test scores to determine promotion and graduation.

Analysis of multiple studies of retention indicate that retained students experience lower self esteem and lower rates of school attendance, relative to promoted peers (Jimerson, 2001). Both of these factors are further predictive of dropping out of school. Indirectly, low self-esteem and poor school attendance influence adult outcomes. Students who ultimately drop out of school without a diploma face considerable difficulty finding and maintaining employment for self-sufficiency and experience higher rates of mental health problems, chemical abuse and criminal activities than do high school graduates.

Why Retention Is a Failed Intervention

There are several explanations for the negative effects associated with grade retention, including:

- absence of specific remedial strategies to enhance social or cognitive competence
- failure to address the risk factors associated with retention (short-term gains following retention mask long-term problems associated with ineffective instruction)
- retained children are subsequently overage for grade, which is associated with deleterious outcomes, particularly as retained children approach middle school and puberty (stigmatization by peers and other negative experiences of grade retention may exacerbate behavioral and socio-emotional adjustment problems)

Alternative Actions

Early identification (through assessment) for prevention and intervention is essential, whenever a student is struggling. Several school-based supports have been found to be effective in assisting children with educational difficulties. These include various reading programs, summer school and

more direct instruction (teacher to student). Tutoring, well-designed homework activities and after-school programs have also been demonstrated to be beneficial. Other helpful strategies include encouraging parents to communicate regularly with the school and to become involved through attending student study team (SST) meetings, participating in training programs and exploring behavior management strategies if appropriate. Most important is to advocate for implementation of educational interventions that are supported by research first, continue monitoring the child's achievement trajectory, and then revisit the progress made. A coordinated system of comprehensive support services aimed at addressing the academic, socio-emotional, behavioral and psychological needs of the child will help promote healthy adjustment and achievement among children at risk for grade retention.

When weighing the pros and cons of a decision to retain or promote a student, it is critical to emphasize to educators and parents that a century of research has failed to demonstrate the benefits of grade retention over promotion to the next grade for any group of students. Instead, we must focus on implementing evidence-based prevention and intervention strategies to promote social and cognitive competence and facilitate the academic success of all students.

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Waiting Rarely Works: "Late Boomers" Usually Just Wilt

For thirty years, up until about a decade ago, the idea of "late bloomers" was widely believed among researchers and educators alike. "Late bloomer" was the endearing term for a child who was slower than his peers in learning to read. The idea, so well captured in the term, was that these children would bloom in their reading—they would just do it a bit later than their peers. This common view, known among researchers as the "developmental lag" theory, was the reasonable basis for teachers' patience with students who didn't catch on to reading quickly—and it justified the common practice of delaying the diagnosis of reading problems until they were quite severe (Lyon et al., 2001).

But more recently, long after many teachers ended their formal education training, researchers have been able to put the developmental lag theory to rest. It has been replaced by an alternate theory of early reading weakness that defines the problem as a skill deficit. The main difference between the two theories is that the developmental lag theory posited that difficulties in learning to read would fade as the brain matured—early, urgent intervention was not necessary. In contrast, the skill deficit theory claimed that waiting wouldn't work; children wouldn't pick up these skills unless they were taught directly and intensively. In fact, waiting would be harmful, as it condemned children to falling further behind.

Three longitudinal studies (Juel, 1988; Francis et al., 1996; Shaywitz et al., 1999) have put the weight of research squarely behind the skill deficit theory and against the developmental lag theory. Each study tracked the reading development of children beginning in first grade.

In the simplest terms, these studies ask: Do struggling readers catch up? The data from the studies are clear: Late bloomers are rare; skill deficits are almost always what prevent children from blooming as readers. This research may be counter-intuitive to elementary teachers who have seen late-bloomers in their own classes or heard about them from colleagues. But statistically speaking, such students are rare. (Actually, as we'll see, there is nearly a 90 percent chance that a poor reader in first grade will remain a poor reader.)

The first study (Juel 1988) tracked 54 children at a school in Austin, Texas, from the beginning of first grade through the end of fourth grade using a variety of standardized tests of phonemic awareness, decoding, word recognition, listening comprehension, and reading comprehension. To see if those who are behind in learning to read do or do not catch up, Juel split the students into two groups based on their scores at the end of first grade on the ITBS Reading Comprehension subtest. Those who scored in the bottom quartile (based on national norms) were labeled "poor readers." Those in the top three quartiles were labeled "average or good readers."

Over the next three years, the poor readers, on average, never caught up to the average and good readers on any measure of reading ability. Consider, for example, the two groups' grade-level equivalents on the ITBS Reading Comprehension subtest at the end of first grade and at the end of fourth grade. The poor readers' mean score increased from K6 (a mid-kindergarten level) to 3.5 (a mid-third grade level). But the average and good readers' mean score increased from a 2.4 to a 5.9.

Of course, group averages don't reveal individual results. Were there some late bloomers hidden behind these means? Not many. On the ITBS Reading Comprehension subtest, students who score in the bottom quartile at the end of first grade are, in terms of grade-level equivalents, at least six months behind. So Juel examined the individual results at the end of fourth grade to see how many students were still at least six months behind. Of the 24 students who were poor readers in first grade, 21 of them were still at least six months behind in reading. Similarly, of the 30 students who were average or good readers at the end of first grade, only four had fallen six or more months behind. Juel summarized her findings as follows:

The probability that a child would remain a poor reader at the end of fourth grade, if the child was a poor reader at the end of first grade, was .88; the probability that a child would become a poor reader in fourth grade if he or she had at least average reading skills in first grade was .12. The probability that a child would remain an average reader in fourth grade if the child had average reading ability in first grade was .87; the probability that a child would become an average reader in the fourth grade if he or she was a poor reader in first grade was only .13. The evidence in this sample of children indicates that the poor first-grade reader almost invariably remains a poor reader by the end of fourth grade. (Juel, 1988)

Furthermore, Juel found that the poor readers lacked a critical skill: phonemic awareness. The poor readers entered first grade with little phonemic awareness and they did not approach the ceiling on the phonemic awareness test until the end of third grade. In contrast, average and good readers approached the ceiling on that test two years earlier, at the end of first grade. She concluded that it was trouble with decoding, rooted in poor phonemic awareness, that appeared to keep the poor readers from improving. With this finding, Juel did much to boost the case of researchers who believed that students who are behind in reading actually have a skill deficit—not a developmental lag. (And, as we see in the article by Joseph Torgesen, she gave researchers a great clue as to

how to intervene with struggling readers.)

* * *

The study that finally put to rest the developmental lag theory among researchers tracked 403 students from 12 communities in Connecticut from grades one to nine (Francis et al., 1996). The primary measure of reading development was the reading cluster score from the Woodcock-Johnson Psychoeducational Test Battery. This score is comprised of scores from the Battery's Word Identification, Word Attack, and Passage Comprehension subtests. In addition, students' IQs were measured in grades 1, 3, 5, 7, and 9 using the Wechsler Intelligence Scale for Children—Revised (and students with IQ scores below 80 in third grade were excluded from the study). Once they reached third grade, students were designated "low achieving," "reading disabled-discrepant," or "not reading impaired," depending on their scores. The low-achieving group consisted of students whose reading scores were below the 25th percentile. The reading disabled-discrepant group consisted of students whose reading scores were well below (at least 1.5 standard errors below) what their IQ scores predicted. (For example, if a student's predicted score was at the 50th percentile, his actual score would have to be at about the 7th percentile to be placed in the reading disabled-discrepant group.) Students who met the criteria for both of these groups were designated reading disabled-discrepant. The "not reading-impaired" group consisted of the remaining students.

With students broken into these groups, the researchers analyzed the reading scores from grades one to nine looking for evidence of either a developmental lag or a skill deficit. If the developmental lag theory was correct, students who were behind would eventually catch up; if the deficit theory was correct, students would not catch up. But the data clearly demonstrated that, on average, neither the low-achieving nor the reading disabled-discrepant students ever caught up to their peers who were not reading impaired. All students' reading improved quickly in grades one to six, but then the rate of improvement slowed. (This quick, early improvement displayed even by weak readers has probably fueled classroom teachers' optimism that these children would eventually bloom as readers.) Apparently, the normal and behind readers reached two different plateaus.

Researchers also analyzed the scores of individual students to determine whether the average scores could, as they sometimes do, be masking different achievement patterns among individual students. That is, could the average scores be hiding the fact that many low scorers in first grade actually went on to be fine readers, while many high scorers in first grade went on to be poor readers? The researchers determined that no masking was happening; rather, they determined that the group averages depicted in the figure closely reflected what was happening with the vast majority of the individual students.

* * *

But what about those last few years in high school? Did the struggling readers catch up? In the late 1990s, the study of Connecticut youth was extended to grade 12 (Shaywitz et al., 1999). On average, students who were behind in reading in elementary school never caught up to their peers. As in the previous study (Francis et al., 1996), all of the students improved quickly in elementary school, but then improved very little after sixth grade. Throughout elementary and secondary school, the gap between struggling readers and their peers remained quite steady.

It's important to note that in each of these studies, the poor readers' failure to catch up only indicates (1) that there is no evidence for the developmental lag theory, and (2) that the special services these students received were not effective. None of these studies indicates that it is impossible to intervene with these students.

The upshot of the research: The problem is not a developmental lag; it is a skill deficit. And, as Joseph Torgesen explains in the main article, the skill deficit between average and below-average readers can be largely erased with appropriate early intervention.

—EDITORS

The editors thank reading researcher Louisa Moats for her help in preparing this section's sidebars. Moats, the author of AFT publication Teaching Reading Is Rocket Science, is currently the Advisor on Literacy Research and Professional Development for Sopris West Educational Services.

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Avoiding the Devastating Downward Spiral

The Evidence That Early Intervention Prevents Reading Failure

By Joseph K. Torgesen

Children who are destined to be poor readers in fourth grade almost invariably have difficulties in kindergarten and first grade with critical phonological skills: their knowledge of letter names, their phonemic awareness (ability to hear, distinguish, and blend individual sounds), their ability to match sound to print, and their other skills in using the alphabetic principle are weak. These weak phonological skills, in turn, mean it is difficult for these children to identify (decode) unknown words, and their efforts to do so produce many errors. Naturally, these children find it difficult, even unpleasant, to read independently.

Their problems then spiral. Their ability to become fluent readers is compromised because the development of fluent word reading depends heavily on learning to identify large numbers of words by sight (Schwanenflugel, Hamilton, Kuhn, Wisenbaker, and Stahl, 2004; Torgesen, Rashotte, and Alexander, 2001). Because words do not become sight words until they are read accurately a number of times, both inaccurate reading and diminished reading practice cause slow growth of fluent word-identification skills. Furthermore, the strongest current theories of reading growth link together phonemic and sight word-reading skills by showing how good phonemic decoding skills are necessary in the formation of accurate memory for the spelling patterns that are the basis of sight word recognition (Ehri, 1998).

The terrible spiral then spins even more strongly. We know, for example, that delayed development of reading skills affects vocabulary growth (Cunningham and Stanovich, 1998), alters children's attitudes and motivation to read (Oka and Paris, 1986), and leads to missed opportunities to develop comprehension strategies (Brown, Palincsar, and Purcell, 1986). If children fall seriously behind in the growth of critical early reading skills, they have fewer opportunities to practice reading. Recent evidence (Torgesen, Rashotte, and Alexander, 2001) suggests that these lost practice opportunities make it extremely difficult for children who remain poor readers during the first three years of elementary school to ever acquire average levels of reading fluency. All of this explains the very sobering fact obtained from several longitudinal studies: Children who are poor readers at the end of first grade almost never acquire average-level reading skills by the end of elementary school (Francis, Shaywitz, Stuebing, Shaywitz, and Fletcher, 1996; Juel, 1988; Shaywitz et al., 1999; Torgesen and Burgess, 1998). (See the sidebar "Waiting Rarely Works")

That's the bad news. The good news is we now have tools to reliably identify the children who are likely destined for this early reading failure. (See "Early Screening Is at the Heart of Prevention"). Most importantly, given the results of a number of intervention studies, we can say with confidence that if we intervene early, intensively, and appropriately, we can provide these children with the early reading skills that can prevent almost all of them from ever entering the nasty downward spiral just described.

In this article, I want to lay out two sets of findings: (1) what we know about the kind of instruction that weak readers need in kindergarten through second grade to prevent them from ever entering the downward spiral, and (2) what we know about the effectiveness of interventions that make use of this knowledge.

Before setting forth the case for early intervention, an important point needs to be clarified. Most children who enter school at risk for reading difficulties fall into one of two broad groups. Children in the first group enter school with adequate oral language ability but have weaknesses in the phonological domain. Their primary problem in learning to read involves learning to read words accurately and fluently (Torgesen, 1999). In contrast, the second group of children, coming largely from families of lower socioeconomic or minority status, enters school with significant weaknesses in a much broader range of prereading skills (Whitehurst and Lonigan, 1998; Hart and Risley, 1995; Hecht, Burgess, Torgesen, Wagner, and Rashotte, 2000). Not only are their phonological skills and print-related knowledge weak, they have weaker vocabularies, less experience with complicated syntax, and less general background knowledge—all of which are vital for strong reading comprehension at third grade and beyond. Children with these general oral language weaknesses on top of phonological weaknesses require a broader range of instructional support and interventions than those who come to school with impairments only in phonological ability. However, both groups require special support in the growth of early word-reading skills if they are to make adequate progress in learning to read; and, with that support, both can achieve word-reading skills within the average range.

It is these early word-reading skills—and specifically how to help our weakest readers attain them—that are the focus of this article. Why make word-reading skills the focus when the ultimate goal is reading for comprehension and enjoyment? For several reasons: First, new discoveries about reading have produced a consensus belief that strong word-reading skills are strong evidence, as common sense would suggest, of both an empirical (Good, Simmons, and Kame'enui, 2001) and theoretical (Chall, 1996; Rayner, et al, 2001) nature that accurate and fluent word-reading skills are important for good reading comprehension. Third, we know how to prevent the emergence of early word-reading difficulties. Thus, if our end goal is strong comprehension, one important goal of early intervention should be to prevent the emergence of early word-reading difficulties. While strong word-reading skills don't fully equip students for advanced comprehension of texts beyond a third-grade level, they are absolutely necessary for it. (For a lengthy discussion of how to build the broader language skills and knowledge that are vital to later reading comprehension, see the [Spring 2002](#) issue of *American Educator*.)

I. What Weak Readers Need to Diminish Early Reading Failure

Too many children are leaving elementary school with reading skills inadequate for the next level of instruction. According

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How One School District Helps Students Avoid Reading Failure
By Catherine Paglin

to the National Assessment of Educational Progress (NCES, 2003), 37 percent of fourth-graders have "below basic" reading skills. Once this was inevitable, but no more. We now have the knowledge and the tools to bring this percentage down to a single digit.

To accomplish this, we must change the way we teach reading in three ways. First, we must ensure that core classroom instruction in kindergarten through grade three is skillfully delivered with a balanced emphasis on word-level skills (phonemic awareness, decoding, etc.) and reading comprehension (including the intensive build-up of content knowledge). Second, we must have procedures in place to accurately identify children who fall behind in early reading growth, even when they are provided strong classroom instruction. Third, we must provide these children who are behind with reading instruction that is more intensive, more explicit, and more supportive than can be provided by one teacher with a class of 20 or 30 children—and we should provide that extra support early, preferably in kindergarten and first grade.

A. Strong Core Classroom Instruction

Six years ago, in a major national consensus report, the National Research Council (Snow et al., 1998) concluded that the most efficient way to prevent reading difficulties from developing was to ensure that every child received appropriate high-quality reading instruction in grades K–3. That report and the more recent report of the National Reading Panel (2000) identified the critical components of early reading instruction as including explicit teaching to build: phonemic awareness and phonemic decoding skills, fluency in word recognition and text processing, reading comprehension strategies, oral language vocabulary, spelling, and writing skills. Instruction that includes these elements and is delivered in a consistent and skillful way is consistently more effective than instruction that does not contain these components.

Since the speed and ease with which students attain these different skills will vary, good classroom instruction needs to make regular use of small instructional groups composed of children with comparable skill levels and needs. Many children enter school with excellent phonological processing skills and a strong beginning understanding of the alphabetic principle. These children can discover, during interactions with print, most of the knowledge that must be acquired to become a skilled reader.

One frequent argument against increasing the amount and explicitness of phonics instruction in early elementary school classrooms is that not all children need the same level of instruction in this area. This is true. But, by making use of small groups within the classroom, weak readers can receive the explicit phonics instruction they need, while other readers can focus on other elements of language arts. Keep in mind, however, that research suggests that initial explicit instruction in phonics is useful for all children (Snow, Burns, and Griffin, 1998; Foorman, Francis, Fletcher, Schatschneider, and Mehta, 1998).

For children who enter first grade with less than average ability or reading readiness, explicit instruction in, and practice with, phonemic awareness and decoding skills are particularly important. Both Foorman et al. (1998) and Juel and Minden-Cupp (2000) found that explicit instruction and opportunities for extended practice with phonemically decodable texts were particularly beneficial for children at risk for reading failure. In the former study, the most phonemically explicit instruction produced the strongest reading growth for all children, but the effects were particularly striking for children whose phonological skills were weakest when they entered first grade.

Phonemic awareness tasks require children to identify or manipulate the phonemes in words that are presented orally. For example, a simple task in this domain would ask children to say which of three words (*bat, car, fork*) begins with the same sound as *bike*. A more difficult task might ask the child to pronounce the first sound in the word *bike*, and a still more difficult task might ask the child to say what word was left when the word *card* was pronounced without saying the /d/ sound. Both conscious awareness of the phonemes in words and the ability to accurately identify them within words are necessary in learning to phonemically decode words in print (Ehri, 2002; Ehri, et al., 2001; Wagner et al., 1997). Children who are delayed in the development of phonemic awareness have a very difficult time making sense out of "phonics" instruction, and they certainly have little chance to notice the phonemic patterns in written words on their own. A simple way to say this is that for individual children, phonemic awareness is what makes phonics instruction meaningful. If a child has little awareness that even simple words like *cat* and *car* are composed of small "chunks" that are combined in different ways to make words, our alphabetic way of writing makes no sense.

B. Screening to Identify Children at Risk of Reading Failure

In recent years, a "technology" of early screening has developed that allows teachers, with a very brief assessment, to identify which children in their classes are at risk of failing to develop their early reading skills on time. In the beginning, the assessment covers such early reading skills as letter-name knowledge, phonemic awareness, letter-sound knowledge, and vocabulary. After reading instruction begins in first grade, the best way to identify children who are falling behind in the ability to read words accurately and fluently is to measure that skill directly. Therefore, by the end of first grade, the assessments should also be measuring oral reading fluency.

In second and third grade, the development of word-level reading ability should continue to be monitored using direct assessments to identify children who are falling behind their peers. At this point, group- or individually-administered measures of reading comprehension may prove useful in identifying children who can continue to profit from more intensive work to build vocabulary and reading comprehension strategies.

These screening assessments are administered individually and should not be confused with group-administered standardized tests, to which they bear no likeness. Screening assessments are typically very brief, often just 5–10 minutes per child and, with proper training, can be administered by the teacher, aides, or specialists in reading or special education, with one or more adults screening the children while the teacher or others conduct the class. These screening and progress-monitoring measures are usually administered several times a year, beginning in kindergarten and going through third grade. Because they identify who needs special help, these screens enable teachers and schools to target extra resources to the small group of children that needs the most help. They can also aid teachers in forming small instructional groups of children with similar skill development needs. For a fuller discussion of these assessments, see "[Early Screening Is at the Heart of Prevention](#)." For an account of how one school made use of such assessments to provide appropriate, effective instruction to its weakest readers, see "[Practicing Prevention](#)."

C. Appropriate—and Extra—Instruction that Matches At-Risk Students' Needs

Kindergarten through third-grade classrooms typically include children with widely different preparation and talent for learning to read. For example, Hart and Risley (1995) documented enormous differences in opportunities to acquire oral language vocabulary at home among toddlers from different socioeconomic strata. We also know that there are very significant differences among entering school children in their knowledge about letters, print conventions, and phonological sensitivity (Whitehurst and Lonigan, 1998). For schools and teachers, one of the biggest challenges is to provide, within the regular classroom, a range of instructional opportunities in reading that matches this huge diversity in children's talent and preparation for learning to read. As noted, this inevitably requires that a great deal of reading instruction be provided in small groups comprised of children working to develop similar skills. For those children at risk of reading failure, the instruction must be more explicit, more intensive, and more supportive than instruction typically is.

Instruction for at-risk children must be more explicit than for other children. Children who enter first grade with weaknesses in their knowledge about letters, letter-sound correspondences, and phonological awareness require explicit and systematic instruction to help them acquire the knowledge and strategies necessary for decoding print. As Gaskins, Ehri, Cress, O'Hara, and Donnelly (1997) pointed out, "first-graders who are at risk for failure in learning to read do not discover what teachers leave unsaid about the complexities of word learning. As a result, it is important to teach them procedures for learning words" (p. 325).

Explicit instruction is instruction that does not leave anything to chance and does not make assumptions about skills and knowledge that children will acquire on their own. For example, explicit instruction requires teachers to directly make connections between the letters in print and the sounds in words, and it requires that these relationships be taught in a comprehensive fashion. Evidence for this is found in a recent study of preventive instruction given to a group of highly at-risk children during kindergarten, first grade, and second grade (Torgesen, Wagner, Rashotte, Rose, et al., 1999). Of three interventions that were tested on children with phonological weaknesses, the most phonemically explicit one produced the strongest growth in word-reading ability. In fact, of the three interventions tested, *only* the most explicit intervention produced a reliable increase in the growth of word-reading ability over children who were not provided any special interventions. Other studies (Brown and Felton, 1990; Hatcher, Hulme, and Ellis, 1994; Iversen and Tunmer, 1993) combine with this one to suggest that schools must be prepared to provide very explicit and systematic instruction in beginning word-reading skills to some of their students if they expect virtually all children to acquire word-reading skills at grade level by third grade.

Further, explicit instruction also requires that the meanings of words be directly taught and be explicitly practiced so that they are accessible when children are reading text (Beck, McKeown, and Kucan, 2002). Finally, it requires not only direct practice to build fluency (Mercer, Campbell, Miller, Mercer, and Lane, 2000), but also careful, sequential instruction and practice in the use of comprehension strategies to help construct meaning (Mastropieri and Scruggs, 1997).

Intervention researchers currently have a good understanding of the kinds of knowledge and skills that must be taught and they know that such instruction must be explicit and systematic. However, the exact mix of instructional activities that is most effective almost certainly varies depending on the individual needs of each struggling reader. Furthermore, the range of instructional methods that can be used to effectively teach specific skills to struggling readers may also be quite broad. For example, in one remedial study (Torgesen, Alexander et al., 2001), my colleagues and I found that two methods that both taught phonics explicitly, but that used quite different methods and distributed instructional activities quite differently, produced essentially the same long-term outcomes on reading growth for a sample of children with severe reading disabilities. Richard Olson and his colleagues at the University of Colorado (Olson, Wise, Johnson, and Ring, 1997; Wise, Ring, and Olson, 1999) also demonstrated that a variety of explicit instructional methods are equally effective in accelerating reading growth for children with reading disabilities in second through fifth grades.

Instruction for at-risk children must be more intensive than for other children. If at-risk children do not receive more teaching/learning opportunities per day than other children, it is highly likely that their reading skills will develop too slowly and thus they will be pulled into the downward spiral outlined in the beginning of this article. Some children are at risk because they learn more slowly than other children; they will thus require more repetition in order to solidly establish critical word-reading and comprehension skills. Other children are at risk because of a lack of instructional opportunities before they started school. Such children may learn at average rates, but they have much more to learn than children who come to school with typical levels of preparation (Hart and Risley, 1995) and thus must be given more learning opportunities in order to catch up to their peers.

There are essentially two ways to increase intensity of reading instruction in elementary school: either instructional time can be increased or instruction can be provided individually or in small groups. While increasing whole-class instructional time in reading helps many children with mild risk status, the most practical method for increasing instructional intensity for smaller numbers of highly at-risk students is to provide small-group instruction. There can be no question that children with reading difficulties, or children at risk for these difficulties, will learn more rapidly under conditions of greater instructional intensity than they learn in typical classroom settings. Meta-analyses consistently show positive effects of reducing instructional group size (Elbaum, Vaughn, Hughes, and Moody, 1999). Further, the intensive small group work must be frequent; in the studies my colleagues and I have reviewed, success has been produced when groups met 20 to 45 minutes per day, 4 to 5 days per week.

There are a number of practical and feasible ways to provide small group instruction to at-risk students during the school day. The most common way is for the classroom teacher to devote part of the daily reading period to work with small groups of children with similar instructional needs. While the teacher is providing intensive and focused instruction to one group of four or five children, the other children are working independently on academically engaging literacy activities. The biggest challenge for teachers in this arrangement is the development of productive activities for independent practice and management of student behavior during independent center activities. Another option is to use special education or reading resource teachers to provide intervention instruction during the small group time of the reading period. The regular classroom teacher might work with one group, the resource teacher another, while two more groups were engaged in independent literacy activities. Well-trained and supervised paraprofessionals may also be used effectively to help guide small group instructional and practice sessions (Grek, Mathes, and Torgesen, 2003).

Peer tutoring is another effective strategy for increasing instructional intensity. For example, Doug and Lynn Fuchs and others (1997) reported success in using peer assisted learning strategies to improve reading skills in mid-elementary school, and Mathes and colleagues (Mathes, Torgesen, and Ailor, 2001) have reported similar success with students in early elementary school.

Instruction for at-risk children must be more supportive than for other children. The needs of at-risk children for more positive emotional support in the form of encouragement, feedback, and positive reinforcement are widely understood. However, their potential need for more cognitive support, in the form of carefully "scaffolded" instruction, is less widely appreciated. Instruction for at-risk children should involve two types of scaffolding. One type of scaffolding involves careful sequencing so that skills build very gradually: The child is always systematically taught and given opportunities to practice the skills required for any task he/she is asked to do (Swanson, 1999). This type of scaffolding is typically provided in well-designed, systematic instructional programs for students with learning disabilities. Another type of scaffolding involves teacher-student dialogue that directly shows the child what kind of processing or thinking needs to be done in order to complete the task successfully. This type of scaffolding in instruction usually involves four elements: (1) the student is presented with a task such as reading or spelling a word (i.e., tries to spell the word "flat"); (2) the student makes a response that is incorrect in some way, or indicates that he/she doesn't know how to proceed (i.e., spells it "fat"); (3) the teacher asks a question that focuses the child's attention on a first step in the solution process, or that draws attention to a required piece of information ("If you read that word, what does it say?" Child responds, "fat." "So, what do you need to add to make it say flat?" No answer. "When you say flat, what do you hear coming right after the beginning sound /f/?"); and (4) another response from the child ("I hear the // sound."). This kind of interaction between teacher and child continues until the child had been led to successfully accomplish the task. The point of this type of instructional interaction is that the child is led to discover the information or strategies that are critical to accomplishing the task, rather than simply being told what to do. As Juel (1996) showed, the ability to offer scaffolded support while children are acquiring reading skills may have increasing importance as the severity of the child's disability increases.

* * *

I have described three broad ways in which instruction for children who are at risk for reading failure needs to be different from the instruction that is typically provided to all children in the classroom. Ensuring that all three of these elements are part of the instruction for our most at-risk children represents an enormous challenge for our schools. The requirement for more explicit and supportive instruction demands a higher level of training and skill for teachers than is usually provided at present (Moats, 1994). The requirement for more intensive instruction for at-risk children must involve a reallocation of resources to make more teacher time available for preventive instruction and, in many cases, will probably require entirely new resources to adequately meet the instructional needs of all children who are at risk for reading failure.

II. How Effective Is Early Intervention in Preventing Early Reading Failure?

The obvious questions are: Will all these changes, as sketched above, be worth it? Is instruction that makes use of the ideas above actually effective in preventing reading difficulties in most children?

In order to answer questions about effectiveness, we must first decide what outcome measure should be used to measure success, and what level of performance constitutes success for a preventive intervention. As a nation, we have (through many state laws and the No Child Left Behind Act) identified the end of third grade as the point at which all students should be reading adequately. Although we do not have a universal performance standard in place at this point, states have typically adopted group administered measures of reading comprehension as the most efficient and thorough way to assess whether students have met their standards for reading proficiency.

The use of reading comprehension measures to assess third-grade standards is appropriate, since the ultimate goal of all reading instruction is to ensure that students have the knowledge and skills they need to gain meaning from text. However, most studies that have focused on the prevention of early reading difficulties do not report scores for their participants on third-grade reading comprehension measures. More typically, they report student growth in early word-level reading skills and, as noted earlier, those skills are a necessary, though not sufficient, ingredient for strong comprehension. Thus, in this discussion of effectiveness, I have also adopted word-reading ability as the primary outcome measure. As a reasonable goal for early intervention, I have adopted as the performance standard that children should not fall below the 30th percentile (which is the low end of the average range) on critical word-reading skills at any time during their early elementary years. While this cannot be considered the ultimate standard for the effectiveness of early preventive instruction (which should involve proficient performance on a reliable and valid measure of reading comprehension at the end of third grade), it is one that can be examined in current research. Further, it does represent one important goal of early intervention, which is to establish a firm foundation for future reading growth through mastery of the alphabetic principle and attainment of high levels of accuracy in reading text. I also recognize, as noted earlier, that any standard involving a percentile score is unstable in an environment in which reading scores are generally improving. The data provided in Table 1 (below) are only meant to show what can be accomplished relative to current norms for reading achievement. If reading achievement in this country gradually improves, then achievement at the 30th percentile would obviously mean something different, in terms of absolute level of performance, than it does at this time.

Table 1 provides data from six early intervention studies in which it was possible to identify the percentage of children who obtained scores above or below the 30th percentile on measures of word-reading ability at the end of the intervention. The children who received the preventive instruction were selected because they were at risk for reading failure on the basis of either weak phonological processing skills or weak development of early word-reading ability. In most of the studies, the children had to have IQ scores of 75 or above to be included, though in some cases there was no IQ cut-off, and in one case, the cut-off was 85. The preventive instruction was provided at some point during kindergarten, first grade, or second grade. The number of hours of special instruction varied between 340 hours of first- and second-grade instruction delivered to groups of eight (Brown and Fleton, 1990), and 35–65 hours of one-on-one instruction delivered in the second semester of first grade and the first semester of second grade (Vellutino et al., 1996). These studies all contained at least one instructional condition that offered skilled delivery of explicit and systematic instruction in phonemic awareness, phonemic decoding, and fluent text reading.

Table 1: How Many Children Remain Below Average Readers after Intervention?				
Study	Amount of Instruction (Hours)	Teacher-Student Ratio	Sample Failure Rate	Population Failure Rate
Foorman et al., 1998	174	Whole class divided into small groups	35%	6%
Brown and Fleton, 1990	340	1:8	29%	5%
Vellutino et al., 1996	35–65	1:1	44%	6%
Torgesen et al., 1999	88	1:1	34%	4%
Torgesen, Rashotte, Wagner, et al., 2003	80	1:3	11%	2%
Torgesen, Rashotte, Mathes, et al., 2003	91	1:3 or 1:5	8%	1.6%

Using six early intervention studies with good instructional practices, this chart shows the percentage of intervention students who fail to reach the 30th percentile in word-reading ability and estimates the percentage of all students who would fail to reach the 30th percentile if the early intervention was universally provided to weak readers. Source: Torgesen, 2004.

As Table 1 shows, while the exact effects of the interventions varied, they all were successful in bringing most students (56 percent to 92 percent) to well within the average range of reading ability. Nonetheless, from eight percent to 44 percent of the children in these studies still had word-reading skills below the 30th percentile, even after the intervention. In reflecting on these numbers, keep in mind that the children in these studies represented the 12 percent to 18 percent of children most at risk for reading failure—they were not a random sample of all children.

* * *

So what if the instructional approaches used in these six studies were implemented across the country? How many students would still be struggling with reading? To use each study's failure rate to estimate a failure rate for the whole population, we can multiply the percentage of students who failed to reach the 30th percentile by the percentage of at-risk students they represent. Taking the first study in Table 1 (Foorman et al., 1998) as an example, the students who received the intervention came from the 18 percent most at risk for reading failure. At the conclusion of the intervention, 35 percent of this bottom 18 percent remained weak readers. Multiplying .18 by .35 yields a population failure rate of six percent. In Table 1, these population failure estimates are reported in the column on the far right.

Although there are a number of important caveats to the estimation of population failure rates reported in Table 1 (Torgesen, 2000), one point is well established. Intervention research has not yet discovered the conditions that need to be in place to enable every child to acquire adequate word-level reading skills in early elementary school. However, research has clearly shown how to sharply reduce the number of children who leave first and second grades with weak skills. Most of the estimates reported in Table 1 suggest that between four and six percent of those children with general learning ability in the broadly normal range (above an IQ of 75) would still have weak word reading skills even if they were exposed to the effective interventions reported here.

As a counterpoint to this estimate of population failure rates, Scanlon, Vellutino, Small, and Fanuele (2000) recently reported a study in which the failure rate was essentially zero in the most effective condition. This condition involved a combination of small group intervention in kindergarten and one-on-one instruction in first grade, and it suggests that it may be possible to improve on past results with multilayered interventions in the early grades.

On the other hand, my colleagues and I have some data from one study reported in Table 1 (Torgesen, Rashotte, Mathes, et al., 2003) that these estimates of 94–98 percent success may be a bit optimistic in projecting the percentage of children who would reach grade level on a group-administered reading comprehension test at the end of third grade. In this study, we provided intensive instruction to the 20 percent of first-grade children most at risk for reading failure from five suburban schools in which effective classroom instruction was also provided to all children. Children received systematic and highly explicit supplemental instruction in groups of three or five for 45 minutes a day from October through May. Whereas all

children in the intervention groups began the intervention with scores on a word-reading accuracy measure below the 25th percentile, only 8 percent had scores below the 30th percentile on the same measure at the end of first grade. Using the same technique as before, we can estimate the population failure rate for word-level reading skills in this study at 1.6 percent (.2 x .08).

These same children were then followed through to the end of second grade (with no further intervention from us), and our estimation of the population failure rate for the word-reading measure was the same for second grade as for first grade (Torgesen, Rashotte, Mathes, et al., 2003). However, when the outcome measure was a group-administered measure of silent reading comprehension at the end of second grade, the population failure rate (the estimated percentage of the total population remaining below the 30th percentile) was 4.1 percent rather than 1.6 percent. I project that this failure rate will be even higher for a comprehensive measure of reading comprehension at the end of third grade for the simple reason that as reading material becomes more complex (with increasing vocabulary demands and more difficult concepts), the role of broad verbal ability and knowledge in accounting for reading comprehension difficulties becomes larger (Adams, 1990; Hirsch, 2003).

How effective is intervention with older students? It works—but not as well or as efficiently as when we intervene with younger students. I've also reviewed the results of interventions conducted with older children (ages 9–12) who were provided 50–100 hours of relatively intense (one-to-one or small group), phonemically explicit, systematic instruction. In some ways the results are promising: These older students made substantial progress in the essential skills of phonemic decoding, reading accuracy, and reading comprehension. But only students with very mild reading problems made any real progress in fluency. Table 2 shows the results of intensive, remedial interventions conducted with five samples of nine- to 12-year-olds who had mild, moderate, or severe reading impairments. Even an intervention that made use of the most effective strategy known to increase fluency (repeated reading of words, phrases, and passages) had very little impact on the relative reading fluency of students with severe impairments (Torgesen, Rashotte, Alexander, Alexander, and MacPhee, 2003). It is important to understand that all of these older students in the studies in Table 2 increased in reading fluency in *absolute* terms (they were able to read passages of equivalent difficulty more fluently after the intervention than prior to the intervention). However, for students with moderate to severe problems with word-level fluency, their increased fluency on low-level passages did not produce a significant "closing of the gap" in fluency compared to peers who were reading at average levels for their age.

Table 2: How Effective Are Interventions With Older Students?

Sample	Instructional		Post-intervention percentile scores			
	Amount of instruction (Hours)	Type (Number of students)	Phonemic decoding	Word reading accuracy	Reading comprehension	Reading fluency
Mild impairment (roughly normal intelligence, word reading accuracy around 30th percentile, fluency around 2nd percentile)	94	small group	82	80	78	48
Moderate impairment (low intelligence, word reading accuracy around 10th percentile, fluency below 1st percentile)	Group 1	98 small group	56	25	14	7
	Group 2	100 small group	77	39	28	6
Severe impairment (low intelligence around 10th percentile, word reading accuracy around 2nd percentile)	Group 1	67.5 1:1 and 1:2	38	23	27	5
	Group 2 (subset appeared to have more severe impairment than group 1)	133 1:1 and 1:2	38	18	18	5

Results of remedial reading interventions with five samples of children ages 9 to 12. Source: Torgesen, 2003

These studies reflect one of the consistent findings in our research on interventions with late elementary children: If children's impairments in word-reading ability have reached moderate or severe levels, our current interventions cannot typically bring their reading fluency rates to the average range. Although the gap in reading accuracy and comprehension can be substantially or completely closed by current interventions even with these older children, the gap in fluency has remained much less tractable to intervention for moderately and seriously impaired older children. (Fortunately, preventive studies with younger children have not found such problems with later fluency.)

My colleagues and I have proposed elsewhere (Torgesen, Rashotte et al., 2001) several possible explanations for this troubling fact. The most important factor appears to be the difficulty in making up for the huge deficits in reading practice the older children have accumulated by the time they reach late elementary school. These differences in reading practice emerge during the earliest stages of reading instruction (Allington, 1984; Beimiller, 1977–1978) and they become more pronounced as the children advance across the grades in elementary school. For example, in "What Reading Does for the Mind" in the *Spring/Summer 1998* issue of *American Educator*, Cunningham and Stanovich (1998) reported evidence suggesting enormous differences in the amount of reading done by good and poor fifth-grade readers outside of school. A child at the 90th percentile of reading ability may read as many words in two days as a child at the 10th percentile reads in an entire year outside of school. Reading practice varies directly with the severity of a child's reading disability, so children with severe reading disabilities receive only a very small fraction of the total reading practice obtained by children with typical reading skills. Nevertheless, research to refine and increase the effectiveness of remedial interventions continues. An ongoing study of four different remedial programs for third- and fifth-grade students in 50 schools is designed to figure out which strategies work best with which students and which programs are most cost effective for schools to implement. Preliminary results will be available in January 2005.

* * *

The results of intervention research have several important implications for education practice. First, schools must focus powerfully on preventing the emergence of early reading weaknesses—and the enormous reading practice deficits that result from prolonged reading failure—through excellent core classroom instruction and intensive, explicit interventions for children who are identified through reliable indicators as at risk of failure. One of the most important goals of preventive instruction should be to maintain fundamental word-reading skills for at-risk children within the average range so that they can read independently and accurately—and with enjoyment. If they do, it is likely that they will experience roughly typical rates of growth in their sight word vocabularies and thus be able to maintain more nearly average levels of reading fluency as they progress through the elementary school years.

Second, schools must find a way to provide interventions for older children with reading disabilities that are appropriately focused and sufficiently intensive. The evidence presented here shows that with such instruction older students can make substantial gains. Simultaneously, our expectations about what constitutes reasonable progress in reading for older children with reading disabilities needs to be adjusted; until our methods are greatly improved, fluency is not likely to rise to average levels over any reasonable intervention period.

Providing the instruction that children at risk of reading failure need will require a great deal of staff development. As an AFT publication is titled, *Teaching Reading Is Rocket Science*—and most teachers have not been provided with the training necessary. It will also require that schools incorporate into their regular life the use of early reading screening and progress-monitoring assessments on a regular basis beginning in kindergarten. And it will require both a reallocation of staffing resources and new resources to assure that children who need an intervention get it—immediately. It will take work and it will be expensive. But we know it can be done. And we know it works.

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*In this article, the average range is defined as the 30th percentile or above and refers to current national norms. Once strong core curricula and early interventions are widespread, average levels of achievement will increase. Eventually, we will have to stop relying on percentile ranking and establish a benchmark for adequate reading ability that virtually all students ought to meet. ([back to article](#))

† In Table 1 and Table 2, information on the amount of instruction and teacher-student ratio is provided as a glimpse of each intervention, not as an indication of which type of intervention might be most effective. Comparing the effectiveness of the various interventions would require a meta-analysis of a much larger set of studies. ([back to article](#))

‡Forty-six percent of the children in our intervention sample had estimated verbal intelligence below the 30th percentile. Thus, although our intervention students were doing better on a measure of reading comprehension in second grade than would be predicted by an estimate of their broad verbal ability, we would expect verbal ability to play an increasingly important role as reading material becomes more complex. Although research has shown how to prevent word-level reading difficulties for almost all children, specific methods for substantially and permanently increasing relative verbal ability (i.e., verbal intelligence) once children enter elementary school remain to be discovered (Lee, Brookes-Gunn, Schnur, and Llaw, 1990). ([back to article](#))

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