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The Children Cannot Wait!

We at CEI pay a great deal of attention to states' AYP reports each summer. We check to see how schools using our programs fared, and we look for the patterns that indicate ways in which we can help. We celebrate, year after year, that more than 99 percent of the schools using *Essential Learning Systems (ELS)* and/or *Mathematical Learning Systems (MLS)* earn their AYPs for the populations they serve.

One of the patterns that we are seeing, also, year after year is that many districts across the country do fine at the elementary level, but virtually all their middle and high schools miss their AYP in reading and/or mathematics. What is going on, of course, is that those elementary schools feeding the middle schools may have only a few struggling students — too few to be counted at grade level in the AYP calculation. But when three or more elementary schools feed into one middle school, there are then more than enough of these struggling students to be counted, and so the middle school gets caught in the accountability system even though some of the children coming to the school are performing as low as first- or second-graders in reading and/or mathematics. They inherited a major problem that cannot be solved in a short time. Consequently, students who perform significantly behind their peers make their way to high school. And they combine with others like them in the high schools, so high schools cannot earn their AYP either because of their inherited problems.

In fact, to resolve this issue, the intervention needs to occur during the earlier years of school. Likewise, those who would try to solve our nation's "dropout" problem must understand that to do so requires the earliest possible interventions, not waiting until a child enters grade 9 without the knowledge and skills that he or she would need for academic success even at the upper-elementary level. A low-skilled ninth grader gets stuck forever at that level — or until he or she drops out — unless someone provides the appropriate interventions.

Therein lies the problem of American education. Therein is the source of cries and demands to close the achievement gap, to improve graduation rates, for students to score higher on the incessant tests, for schools to be accountable for the resources invested in them. The costs of failing to solve these critical problems are enormous in economic terms and outrageous in a wealthy democracy. These are the costs at the macro level. But the costs may be even more devastating at the micro level — the level of the individual child who waits and waits and waits for the help he or she needs.

The research literature is replete with references to what is usually termed as "a sense of urgency for the earliest possible intervention" for any learner who has a learning difficulty or disability. We are reminded of the medical model that shows that prevention of disease is low-cost and highly effective; treatment costs more than prevention and is less effective; and recovery is very costly and rarely effective. Translating that model to education means that prevention of failure, if done appropriately, is very cost-effective since it does not require long periods of time and is highly successful. Retention, re-teaching, and typical "remediation" take much more time, cost much more than prevention, and have less success since they do not individualize, nor address the root cause of failure: faulty sensory processing. Intensive intervention, usually in a special education setting, is very expensive in time and money and has much less success — in part because identification comes so late.

Researchers make the following arguments for early identification and intervention:

- It prevents academic failure at the earliest possible time.
- It prevents the identification of as many children as possible for special education services.
- The brain is most plastic and able to change and learn at early ages.
- Failure to learn to read results in failure to learn content knowledge.
- Failure to learn to read results in weak vocabularies since we learn most of our vocabulary from reading.
- Failure to learn to read results in damaged self-esteem and one's ability to be successful at school.
- The longer the school waits to intervene, the longer it takes to accelerate learning sufficiently for a learner to catch up with his peers.
- Students who fail to learn actually can "acquire" a learning disability.
- Failure to learn to read early is a strong predictor that the student will become a dropout.
- Failure to learn frequently results in behavior problems at home and at school.
- Failure to learn frequently results in criminal behavior, increasing the societal cost of crime, adjudication, and imprisonment.
- Failure to learn highly correlates with substance abuse.
- Prevention efforts decrease the need and cost of later interventions.

- Failure to learn means that peers get far more practice in reading, making it increasingly difficult ever to narrow the achievement gap.
- Failure to learn is the result not of learning disabilities, but the result of limited early experiences in the home and lack of adequate and appropriate instruction in the early grades.

At the individual child level, therefore, the micro level, a child suffers greatly if he or she fails to learn. Every day of school is agony and repeated failure. Every day of not being able to learn means falling further and further behind peers. Every day results also in not learning content knowledge and academic vocabulary since the student cannot read texts. Every day without an appropriate intervention means the high likelihood of repeated in-grade retention; always failing the state assessments; facing the humiliation of being over-age in a grade; feeling the disapproval of family, friends, and educators; and eventually dropping out of school. And every dropout is highly likely to face a future of minimum-wage jobs, poverty, dysfunctional relationships, crime, substance abuse, and the probability of early death. The picture cannot be more grim. The following scenario illustrates the spiral downward for a child who comes to school already behind and then what happens if there is not an immediate intervention that accelerates learning.

SCENARIO: JASMINE

Jasmine enters kindergarten at physical age 5 without pre-school experience. She is identified as an English-language learner, and she has almost no prior experience with books or early literacy acquisition. She can count only to five, she can name only four colors, and she knows nothing about shapes or patterns.

Jasmine's school is one that always makes its AYP in part because it has very low numbers of students from poverty, students with learning disabilities, and students who are English-language learners. The school is respected by most parents because they can be fairly certain that their average student will gain at least one year academically for a year of instruction, what we call "expected growth." The problem, however, is that without appropriate interventions, such as CEI's *ELS* and *MLS* programs, the "typical growth" for struggling students is at best six months for a year of instruction.

The table that follows dramatically displays what happens in this school. Jasmine enters kindergarten two years behind her peers. By the end of grade 5 (or her sixth year in school), however, she is almost five years behind! And the longer she goes without help, the more behind she is. At the beginning of her seventh year in school (or grade 6), her reading and mathematics skills are barely at the first-grade level. Meanwhile, the average or above-average student stays at least on grade-level and is always ready for the challenges of the next grade. While Jasmine has still not yet learned to read fluently in her native language and is even further behind in English reading, her classmates have zoomed ahead, reading hundreds of books, mastering content knowledge, and greatly expanding their vocabularies.

BEGINNING GRADE (Years in School)	ACADEMIC AGE	
	AVERAGE STUDENT	STRUGGLING STUDENT
Kindergarten (1)	5	3
Grade 1 (2)	6	3.5
Grade 2 (3)	7	4
Grade 3 (4)	8	4.5
Grade 4 (5)	9	5
Grade 5 (6)	10	5.5

The costs to Jasmine for these six lost years are enormous! This little girl who entered school so excited and eager to learn now knows that she is a total failure at the enterprise called school, and her self-esteem will probably never be what it should be, no matter what happens. She hates school, she has few friends, and she has already resolved to leave at the earliest opportunity. She has failed the state assessments at grades 3, 4, and 5. And she is likely to have been retained at least twice, if not more, during the elementary years. Some psychologists state that retention at grade is so devastating to a child that nothing is more painful except the loss of a parent. Research indicates that a child who is retained

even once is about 50 percent likely to drop out, and a child retained twice is almost 100 percent likely to drop out. The tragedy is that none of this had to happen if the school had the resources to do what it needed to do in her kindergarten year to accelerate her learning so that she could perform on par with her peers.

Let's suppose that Jasmine is eventually socially promoted to middle school, although her reading is only at the first-grade level. Her teachers do not know what to do with her since she has not qualified for special education, and she is not yet fluent in English, so they support her the best they can in their large classes, and they ask her parents to help her by reading her texts aloud, but, of course, the parents are not fluent in English either. The school has no available resources for special instruction for students who are not learning disabled since the Response-to-Intervention requirements were not funded, and the school is not a Title I school.

The table below illustrates Jasmine's progress of about six months for each year of instruction throughout middle school.

BEGINNING GRADE (Years in School)	ACADEMIC AGE	
	AVERAGE STUDENT	STRUGGLING STUDENT
Grade 6 (7)	11	6
Grade 7 (8)	12	6.5
Grade 8 (9)	13	7

Jasmine began middle school performing like a first grader, and by the end of grade 8, she is only mid-year of grade 2 in her reading performance —six years behind her peers and clearly unable to do acceptable middle school work, much less high school work. For all those who are stunned to know that there are high school students performing at the second grade level, Jasmine is an example of how that can happen, and it happens far too frequently in our country. At this point Jasmine has no hope, so she never even enrolls in high school.

SCENARIO: A SOLUTION FOR JASMINE

All is not lost. There is hope for Jasmine! The remarkable news from the research community is that Jasmine could have been performing at grade-level by the beginning of grade 2 had she had adequate and appropriate instruction to meet her needs.

CEI's 20-plus years of data collection measuring gains from pre- to post-tests in *Essential Learning Systems (ELS)* labs tells us consistently that even average labs can produce gains of about two years for one year of instruction. Even more dramatic results can be attained if students are assigned to the lab more than one period per day, as the Tier II-Tier III implementation of Response to Intervention requires.

The following table reflects what could have been Jasmine's story if she had been able to participate from the beginning of kindergarten in an *ELS* lab. Note that the table now includes a column depicting "accelerated growth" for a CEI student rather than the "typical growth" of a struggling student.

BEGINNING GRADE (Years in School)	ACADEMIC AGE		
	AVERAGE STUDENT	STRUGGLING STUDENT	ACCELERATED CEI STUDENT
Kindergarten (1)	5	3	3
Grade 1 (2)	6	3.5	5
Grade 2 (3)	7	4	7

The table demonstrates that students entering kindergarten who are two years behind can, with two years of intervention that truly accelerates learning, be on grade-level and can most likely exit the intervention program. Only those who will need intensive special education services will need to continue the intervention past grade 1. Educators may wish to read this important study: "Preventing Early Reading Difficulties through Intervention in Kindergarten and First Grade" by Vellutino, Scanlon, Small, Fanuele, & Sweeney in Evidence-Based Reading Practices for Response to Intervention, edited by Haager, Klingner, and Vaughn, 2007, pp. 185-219. Their findings were as follows:

The data also suggest that providing supplemental literacy instruction in kindergarten may be all that is needed to prevent early and long-term reading difficulties in many at-risk children. Results on reading achievement measures administered at the end of first, second, and third grade provide additional support for this suggestion (p. 201).

… early and long-term reading difficulties can be prevented in most children found to be at risk for such difficulties if these children are identified at the beginning of kindergarten (if not sooner) and if appropriate intervention to institute foundational literacy skills is provided throughout kindergarten (pp. 202-203).

… the majority of children who continue to need remedial assistance at the beginning of first grade, despite having received such assistance in kindergarten, can be brought to at least average levels of literacy achievement by the end of first grade (p. 203).

We used letter identification to determine at-risk status in the present study because we and others have found this measure to be the single-best predictor of early and long-term reading achievement …(p. 210).

We intuit that the most effective preventive model would incorporate both enhanced classroom instruction and appropriate supplemental instruction for children identified as at risk for early literacy difficulties at the beginning of their school year (i.e., after they are identified as at risk) and would implement both of these strategies simultaneously rather than in tandem as dictated by the three-tier model (p. 211).

… reading difficulties in most beginning readers are caused primarily by experiential and instructional inadequacies rather than cognitive impairments of biological origin…. (p. 214).

SCENARIO: WHAT IF WE WAIT UNTIL GRADE 3?

What would have happened had Jasmine had to wait until her fourth year of school or the beginning of grade 3 before she had access to an appropriate intervention? In the past, most schools did not begin to consider anything beyond Tier I intervention until grade 3 or 4, so this scenario continues to play itself out in many American schools.

BEGINNING GRADE (Years in School)	ACADEMIC AGE		
	AVERAGE STUDENT	STRUGGLING STUDENT	ACCELERATED CEI STUDENT
Grade 3 (4)	8	4.5	4.5
Grade 4 (5)	9	5	6.5
Grade 5 (6)	10	5.5	8.5
Grade 6 (7)	11	6	10.5

Under this scenario, Jasmine would have required more than three years of intense accelerated growth in order to be on level with her grade-level peers. Given the likelihood that she would have been retained in grade at least once during this time and that she could not begin to read books and absorb content knowledge until grade 4, she is likely still behind academically even though her reading ability has dramatically improved. Fletcher, Lyon, Fuchs, & Barnes (2007) note the following:

> *There is a strong relationship between reading fluency and practice, so that if students are not able to access print for 3-5 years, it would very difficult to close this gap. Torgesen (2002) estimated that students in the interventions would have to read for 8 hours per day for a year in order to close the gap created by the delay in the students' access to print.*

The bad news is that the required intervention time to bring Jasmine to grade-level almost doubled over the time required had intervention begun in kindergarten, rather than grade 3. Monetary costs are much higher than they would have been had intervention occurred at the earliest possible time. The effectiveness of this intervention is lessened because of psychological damage of repeated failure and doubt and the academic losses that occur when one cannot read. Continued interventions in the content areas are likely to be required. And even one grade-level retention makes Jasmine still a possible dropout.

The good news is that Jasmine was almost able to achieve grade-level in reading by the time she completed grade 6, so, if she is sufficiently motivated and continues to receive the support she needs, she can successfully complete middle school, high school, and beyond.

SCENARIO: WHAT IF WE WAIT UNTIL GRADE 6?

At the beginning of this article, we noted that many struggling students do not become visible to schools until middle school, when there are a sufficient number of them to constitute a subgroup for which the school is accountable for AYP. Consequently, CEI has many, many middle schools using our programs. Some educators ask us if it is too late to make a difference. It is, of course, never too late. One of the hallmarks of American education is that we never close the door. No matter how old someone is, he or she can, if desired, learn how to read or learn mathematics — or anything else. Educators have a moral and professional responsibility to do everything that they can, regardless of a child's age, to ensure as much success as possible.

Suppose Jasmine never got the help she needed in her elementary school, but over time was socially promoted to middle school. Her school has a CEI lab for their Response to Intervention implementation, so she was scheduled into two periods of reading per day, one in the regular classroom and one in the CEI lab. The table below demonstrates her progress.

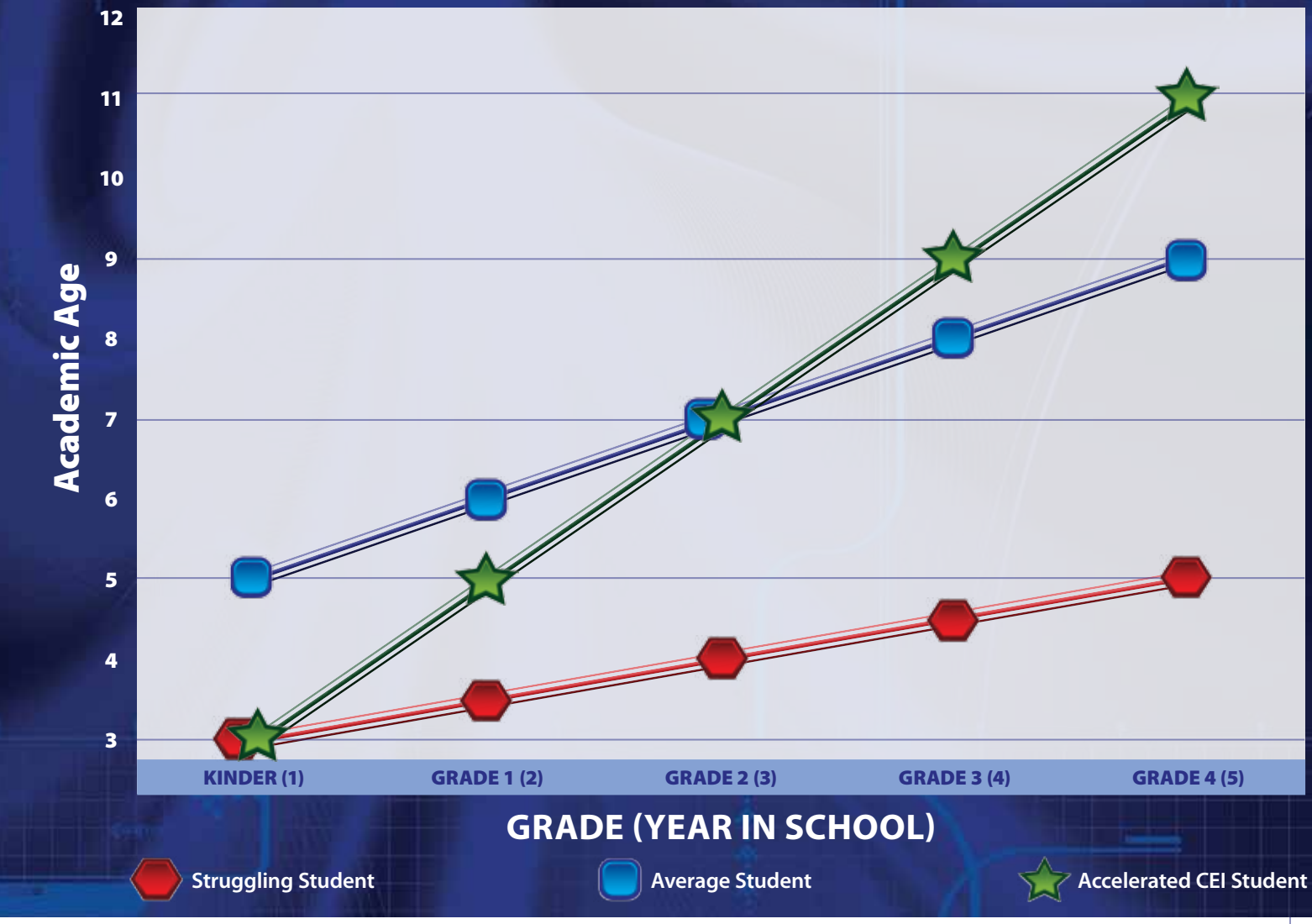
BEGINNING GRADE (Years in School)	ACADEMIC AGE		
	AVERAGE STUDENT	STRUGGLING STUDENT	ACCELERATED CEI STUDENT
Grade 6 (7)	11	6	6
Grade 7 (8)	12	6.5	8
Grade 8 (9)	13	7	10
Grade 9 (10)	14	7.5	12
Grade 10 (11)	15	8	14
Grade 11 (12)	16	8.5	16

If the school waits until grade 6 to address Jasmine's needs, it will take at least five full years of intense acceleration for her to catch up with her peers in reading or mathematics. Assuming that everything works well and that Jasmine stays motivated, her peers would be ready for grade 11 before she caught up. But, of course, she would have been retained several times along the way most likely, she would have repeatedly failed the state assessments, the psychological damage would accumulate, and Jasmine would very possibly have given up and dropped out of school. The good news is that even though this type of intervention takes five years instead of two and costs a great deal more, it is still possible to save Jasmine. But she will live with the scars of neglect the rest of her life.

We hear people all the time who are in disbelief that a student could get to high school with such low levels of skill and knowledge. High school educators know, however, that many do, and the challenges they face are enormous. Students who are behind even two years when they get to high school (Jasmine was behind almost six years) almost never succeed without extraordinary effort. That is why ninth grade classes are sometimes two or three times as large as senior classes. These students never get out of grade 9, and they are highly likely to drop out sometime during their first year of high school.

If Jasmine entered high school reading at the academic age of 7, could she still reach grade level and graduate? If she worked hard and accelerated her learning two years each year, it would take more than the four years allotted to high school for her to catch up. Of course, CEI has seen some students gain much more than two years in one year, especially when the student has more time in the lab. A Fontana High School student gained last year 8.4 years in less than one year by coming to school as early as 5:30 in the morning on many days in order to work extra time in addition to his *ELS* class during the school day.

[Editor's Note: For the complete story of this Fontana High School student, please see "In the Spotlight" on pages 24-27 of this issue.]



CONCLUSIONS

These scenarios make clear why it is so very urgent that schools implement interventions at the earliest possible grade level and that they choose interventions that are truly therapeutic and that truly accelerate learning, such as CEI's *Essential Learning Systems, Mathematical Learning Systems*, and the new *Science Learning Systems*. The children cannot wait! And the costs to our country of our requiring them to do so are unacceptably high. Worse yet, the costs to the individual child are incalculable, far-reaching, and forever.

CEI encourages elementary schools with *ELS* and/or *MLS* labs to use them to their fullest capacity. The research makes it clear that all at-risk kindergarten students should be placed in the lab, as well as any first-grader who is behind. After grade 1, students who are new to the school, students who are limited-English, and students who have learning disabilities (including dyslexia and/or dyscalculia) are priorities — again catching them as early as possible.

We are encouraging all new clients to begin in this way as well. We have worked hard to price our licenses in ways that makes more room licenses and/or more station licenses as affordable as possible since none of us wants to have to be in a position of serving "either/or" students. We need to serve all the ones who need help.

At the middle school level, we encourage schools to identify students who are behind two or more years and to place them in the lab at grade 6 and then in subsequent grades as long as it takes for them to catch up. Again, students new to the school or district and who lag, students who are not fluent in English, and students who have learning disabilities must be included.

High schools should be serving limited-English, special education, and alternative students who are behind — in addition to those who are not in these categories but who have low levels of knowledge and skills. We know, for example, that we could dramatically increase success in algebra if all ninth graders were (1) fluent in their math facts, (2) understood the concept and algorithm for long division, and (3) had mastered the concepts and operations of fractions. The vast majority of failures are due to these deficits. Big needs in reading include vocabulary growth and fluency development — two of *ELS'* major strengths. And teachers tell us that the biggest problem in science is the amount of new vocabulary that students must learn each year. Studies have verified that one year of science has more new words and terms for students to learn than they would encounter in the first year of a foreign language. That is why CEI has developed *SLS*.

CEI's mission is to partner with our clients so that struggling learners of any age can get the help they need. The purpose of our service/support program is to ensure the most effective intervention possible—so that each student accelerates his or her learning and the school gets the results it needs. We are available every day for free consultation. **The children cannot wait!**