

FCRR Technical Report #7

Using an RTI model to guide early reading instruction: Effects on identification rates for students with learning disabilities

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June, 2007

One of the important provisions of the *Individuals With Disabilities Education Improvement Act* of 2004 was that a local education agency “may use a process that determines if the child responds to scientific, research-based intervention as a part of the evaluation procedures.” This use of the term “response to intervention” focuses on its potential utility for diagnosis of learning disabilities. In this context, “response to intervention” can be understood as a diagnostic approach for determining which students are entitled to special educational services.

Confusion sometimes arises, however, because the term “response to intervention” is currently being used by educators and psychologists to mean other things as well. For example, the term is also frequently used to refer to a school and classroom model for providing instruction to young students that can help to prevent the emergence of early reading or other learning difficulties.

This latter usage of the term often refers to three tiers of instruction and intervention in which regular classroom teachers are encouraged to assume more responsibility for providing effective instruction to students who struggle in learning to read. Principals and other school leaders are also asked to organize school resources so that students who struggle the most can receive timely and intensive interventions before being identified for special education services. When the term “response to intervention” is used in this way, it refers to a complete model for organizing and delivering early reading instruction in elementary schools. In fact, it could be called the “response to intervention instructional model”, as distinct from the “response to intervention diagnostic approach” which is referred to in the legislation mentioned in the first paragraph of this article.

It is important to notice that the validity of the RTI diagnostic approach for identifying students with learning disabilities depends critically on the quality of the RTI instructional model as it is implemented in a school, or school district. If students do not receive high quality initial instruction, and do not have available to them reasonable interventions if they struggle in the classroom, then far too many students will be judged to have learning disabilities when they are essentially victims of weak instruction. One way to see this point clearly is to imagine a situation in which students received *no real instruction at all*. In this case, there would be many, many students who would not make adequate yearly learning gains in reading. It is easy to see that it would be inappropriate to label these students “learning disabled” when, in fact, they were not learning because they were not receiving appropriate instruction.

Now, imagine a situation in which students had the *strongest possible reading instruction* available to them for *as much time as they needed*. In this case, research tells us that very few

students would not make adequate progress in learning to read, and thus very, very few students would be diagnosed as “learning disabled”. In reality, the situation in most schools will fall somewhere between these two extremes. The RTI model for providing reading instruction, when properly implemented, is designed to provide a “safety network” that involves strong instruction from the classroom teacher coupled with robust interventions available when needed. In schools where this approach is implemented strongly, the RTI diagnostic approach is more likely to identify the core of students who have learning disabilities sufficiently severe to warrant special education services. In contrast, the RTI diagnostic approach will identify many more students as “learning disabled” in schools that do not provide strong classroom instruction along with appropriate early interventions when students lag behind in reading development.

In this brief paper, I will focus on the impact of the RTI instructional model on rates of identification of students with learning disabilities. I will present data from a large number of schools in Florida that illustrate the immediate impact this approach to early reading instruction is having on the percentages of students in those schools that are being diagnosed as having a learning disability.

Use of the RTI instructional model in Reading First Schools

Schools participating in *Reading First* in Florida have received professional development and support to implement a RTI instructional model as a way of reducing the number of students with serious reading difficulties by grade three. They are focusing on improvements in three areas:

1. Providing consistently high quality initial instruction along with small group instruction that is differentiated according to student needs. Classroom teachers are encouraged to differentiate instruction in multiple ways (time, group size, focus of instruction, lesson structure) in order to more effectively meet the needs of all students in their classroom.
2. Reliable screening and progress monitoring to identify students falling behind in reading growth. In Florida, the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) have been administered four times a year to all students, and teachers and school leaders have been trained to use this data to help make instructional decisions for students. Schools have made progress in learning how to do this, but it remains an area of continuing need for improvement.
3. Providing interventions for struggling readers that are sufficiently powerful to accelerate their reading development toward grade level standards. Sometimes these interventions are provided by classroom teachers, sometimes by reading specialists (including special educators), and sometimes by paraprofessional tutors. Within the *Reading First* model, data from ongoing progress monitoring of student growth is to be used to guide adjustments to interventions so that all students receive instruction that effectively accelerates their reading growth.

These three elements of the *Reading First* plan in Florida capture the basic elements of the RTI instructional model as it is currently understood in the research literature. The most important elements of this model include: 1) high quality initial instruction; 2) use of data to adjust or

modify instruction for students who are not making adequate progress; and, 3) providing increasingly powerful “tiers” of intervention based on student need. Frequently, the first tier within a “three tier” system is high quality classroom instruction, the second tier involves special interventions provided by the classroom teacher and/or reading specialists, and the third tier involves identification and qualification for special education services.

However, it is an oversimplification to think of the RTI model for providing early reading instruction as involving only three tiers of instruction. There is no essential reason why it might not involve four or five, or even more, tiers of instruction, depending on the range of student needs in a given school. One of the basic lessons we are learning from intervention research, as well as from experience in schools that have been applying the RTI instructional model, is that students should be provided time in interventions that is *proportional to the extent they are behind in reading*. Students who are seriously behind in reading should be provided substantially more time in intervention than those who are moderately behind. Thus, it is possible to conceive of many more than just three different levels of reading instruction in a school that is successfully implementing the RTI instructional model.

Impact of implementation of the RTI instructional model on identification rates for students with LD

In theory, if an RTI instructional model is implemented effectively kindergarten through third grade, fewer students should remain whose reading disabilities are severe enough to qualify for special education services. To accomplish this, all elements of the model must work effectively; 1) classroom teachers must teach in a way that meets the needs of more of their students; 2) ongoing assessments should identify students in need of extra instructional support early in their development; and, 3) a range of interventions should be available to meet the needs of all students. Since most students in early elementary school are identified as learning disabled because of difficulties learning to read, effective implementation of the RTI instructional model should have an impact on the numbers of students identified for special education because of learning disabilities.

The data on identification rates presented here comes from 318 elementary schools that participated in the *Reading First* program in Florida since school year 2003-2004. Three years of data was available for these schools, starting at the end of their first year of implementation of *Reading First*. Unfortunately, we do not have comparable data for these schools from the years before they began the *Reading First* program, but we can accurately report the changes that have occurred across successive years of implementation of the *Reading First* program. These schools have a high proportion of students from poverty (72% of students qualify for free or reduced price lunch), a majority of minority students (62%), and 14% of the students speak English as a second language.

Table 1 below shows the percentage of students identified as learning disabled at the end of kindergarten through third grade in each of the first three years of *Reading First* implementation for the 318 schools in this study.

Table 1: Percentage of students identified as learning disabled in the first three years of implementation of *Reading First*.

	Year 1	Year 2	Year 3
Kindergarten	2.1	1.5	.4
1 st Grade	4.9	3.5	1.6
2 nd Grade	7.4	5.9	3.5
3 rd Grade	10.4	8.8	6.0

The percent of students identified as learning disabled at the end of kindergarten was reduced by 81% from year 1 to year 3, and the figures for grades 1, 2, and 3 were 67%, 53%, and 42% respectively.

Possible reasons for the reductions

There are two plausible explanations for these significant year-to-year reductions in the percentage of students identified as learning disabled in this sample of *Reading First* schools. First, it is possible that use of the RTI instructional model has actually reduced the percentage of students with serious reading difficulties in the schools. Second, it is also possible that fewer students are being identified because teachers and schools have increased confidence in their ability to meet the needs of students without referring them for special education. The training and support that has been provided thus far has given teachers and schools more instructional options to pursue before a referral is made for diagnostic evaluations.

With regard to the first explanation, it is clear that these schools, on average, have been able to significantly reduce the percentage of students with significant reading difficulties in each year they have implemented their grants. In Florida’s *Reading First* schools, students are considered to have significant reading difficulties if they perform roughly below the 20th percentile on measures of pre-reading skills at the end of kindergarten, or on measures of reading comprehension at the end of 1st, 2nd, or 3rd grades. Table 2 shows the year-to-year reduction in percent of students reading below the 20th, percentile in grades K-3 for the schools being discussed in this article.

Table 2: Percentage of students finishing the year with significant difficulties in reading in the first three years of implementation of *Reading First*

	Year 1	Year 2	Year 3
Kindergarten	25.1	18.4	14.9
1 st Grade	22.8	18.2	15.7
2 nd Grade	23.3	19.1	16.2
3 rd Grade	26.7	24.8	18.9

Of course, it usually requires reading difficulties substantially more severe than those reported in Tables 2 in order to be identified as learning disabled in most states. Because *Reading First* schools in Florida administer a nationally standardized test of reading comprehension at the end

of first and second grades, we were also able to examine the percentages of students reading at or below the 10th percentile, and at or below the 5th percentile at these grades. Those percentages are reported in Table 3 below.

Table 3: Percentage of students finishing the year reading at or below the 10th and 5th percentiles in 318 *Reading First* schools.

	At or below the 10 th percentile			At or below the 5 th percentile		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
1 st Grade	12.6	9.1	8.5	5.3	4.1	3.7
2 nd Grade	13.5	9.1	8	4.7	3.8	3.3

Although these year-to-year reductions in the percent of students with serious reading difficulties are significant, they may not be the complete explanation for the dramatic year-to-year reduction in percent of students identified as learning disabled in these same grades. For example, although the rate of identification of student with learning disabilities was reduced by 67% from Year 1 to Year 3 in first grade, the reduction in percentage of students reading below the 20th percentile, and at or below the 10th and 5th percentiles, was 31%, 33%, and 30%, respectively. Similarly, identification rates for learning disabilities were reduced by 53% at second grade, while reduction in percentage of students reading below the 20th percentile, and at or below the 10th and 5th percentiles was 30%, 41%, and 30%, respectively.

A part of the explanation for the reduction in percentages of students identified as learning disabled probably lies in the increased confidence that teachers and school level administrators have that they have instructional strategies and intervention systems in place that can meet the needs of their struggling readers without referring them for special education. Two of the goals of the *Reading First* plan for implementation in the state (and also of the RTI instructional model) are: 1) to increase the capacity of classroom teachers to meet the instructional needs of a more diverse range of students than ever before through data-based differentiated instruction in the classroom; and, 2) to develop better school-level systems and capacity for providing immediate and intensive interventions for students based on their performance on screening and progress monitoring tests. Successful implementation of both of these elements should reduce the need for referral of students to special education. The data provided in this brief summary suggest that these elements of *Reading First*, and of the RTI instructional model, are having the impact on school level practices they were intended to have.

However, these data also introduce one note of caution as we proceed with the implementation of the RTI instructional model in our schools. One of the advantages of the RTI approach to the diagnosis of learning disabilities over traditional discrepancy based approaches is that it should lead to earlier identification of students in need of interventions. This advantage will only be present, however, if students are quickly provided with early interventions that are sufficiently powerful to prevent the immergence of serious reading difficulties. If schools spend significant amounts of time experimenting with interventions that are not sufficiently powerful before they refer students for potentially more powerful special education services, then the RTI instructional model could actually *delay* the identification of students for needed instructional services. This could actually produce an outcome in which rates of identification of students with learning

disabilities would *increase* once students move to upper grades in which the RTI instructional model is not currently being implemented. Thus, as we move forward with the implementation of both RTI instructional models, and with the RTI diagnostic approach, it will be important to carefully monitor both actual percentages of students with serious reading difficulties in both the lower and upper grades of elementary school, as well as rates of identification of students with learning disabilities across the same grade level span.