# Keynote

# 1

# Reasons and Resources for Learning Response to Intervention

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## FOUNDATIONS OF RESPONSE TO INTERVENTION

## Shifting Paradigms of American Education: Historical Perspective

A *paradigm shift* generally describes a fundamental change in the way large numbers of people think about and do things. If we understand response to intervention (RTI) as a form of scientific method applied to making decisions about the educational programs of individual children—applying scientific method in day-to-day educational practice (Clark & Alvarez, 2010)—then its widespread adoption would qualify as a paradigm shift by any normal use of the term. To see the importance of this, we need to briefly review the educational paradigms that have appeared and "shifted" during the past 50 years.

#### The Curriculum-Centered Paradigm: World War II Through the 1950s

During and after World War II, Americans tended to focus on their emergence as a superpower and cold war competition with the Soviet Union. The struggles during these years included the nuclear arms race, begun with the first Soviet atomic test in 1949, and the related space race, ushered in by Sputnik in 1957. Both of these shaped the way Americans viewed their educational system. The Eisenhower administration responded with a massive federal investment—more than a billion dollars through the National Defense Education Act of 1958—into American schools in hope of improving the competitiveness of their graduates (Ambrose, 1990). The effect was to introduce what we now call a paradigm of American education: School became a place where students were supposed to develop the learning and skills they would need to help their country survive the challenges of modern life. Curriculum was the center of the educational process, and the purpose of curriculum was to serve the society, not just the individual child.

Echoes of the curriculum-centered paradigm could be heard in President Kennedy's "Ask not what your country can do for you—ask what you can do for your country" (Clark, 2004, p. 4) and his call for "achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth" (Murray & Cox, 1989, pp. 16–17). Publishers took advantage of a wave of mass interest in learning, for example, selling millions of encyclopedias at supermarket checkout counters. Mortimer Adler's 60-volume *Great Books of the Western World* series sold more than 50,000 sets in 1961 (Mayer, 1993). Within this cultural background, schools of the 1950s and early 1960s placed a heavy emphasis on academics—particularly math and science, on moving more graduates into higher education, and on teaching children responsibility to society.

## The Child-Centered Paradigm: The Late 1960s Through the 1990s

By the early 1960s, the civil rights movement was taking shape and moving American values in a new direction: from responsibility of the individual to society, toward responsibility of society to guarantee the rights and fulfill the needs of each individual. Part of the fallout from the civil rights movement, the youth movement, and the anti–Vietnam War movement of the late 1960s was a dramatic shift of perception about the purpose of schooling in America, that is, a paradigm shift. During the same years that educators focused on what they and their students could do for their country, a new voice was building momentum, demanding equal protection of the laws for all citizens, and eventually, an educational system that valued the needs of the individual child as its overriding purpose.

The drive to "meet the needs of all students" became a mantra for districts throughout the nation. During the 1970s and 1980s, hardly a school calendar was published that did not carry some variation of that statement in its masthead. American schools and academic programs focused on the needs of children, not the demands of society.

*Reaction to the Child-Centered Paradigm: From* A Nation at Risk *to No Child Left Behind* 

On June 16, 1980, *TIME Magazine* published a startling cover story: "Help! Teacher Can't Teach!" For the first time in living memory, Americans saw their public schools held up to ridicule in the national media: "Like some vast jury gradually and reluctantly arriving at a verdict, politicians, educators and especially millions of parents have come to believe that the U.S. public schools are in parlous trouble. . . . Ever since the mid-1960s, the average achievement of high school graduates has gone steadily downhill" ("Help! Teacher Can't Teach," 1980, screen 1, para. 4, and screen 4, para. 3).

Similar stories followed in *Newsweek, U.S. News & World Report,* and dozens of national and local publications and public service documentaries. The child-centered educational system of the past generation, with its focus on the affective, rather than cognitive, aspects of students' growth, was perceived as fallen into a state of crisis. As part of his initiative to disband the U.S. Department of Education, President Reagan convened a National Commission on Excellence in Education, which published its report entitled *A Nation at Risk* in April 1983 (Vinovskis, 2009). Rather than argue for a downgraded federal role in education, the study increased the level of national alarm over the state of America's schools:

Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. . . . The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. . . . If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves. (National Commission on Excellence in Education, 1983, Opening section, paras. 1 & 2)

Among the causes for the decline, the commission recognized the child-centered approach to education, seen in "the multitude of often conflicting demands we have placed on our Nation's schools and colleges . . . [which] are routinely called on to provide solutions to personal, social, and political problems that the home and other institutions either will not or cannot resolve" (National Commission on Excellence in Education, 1983, Opening section, para. 3). Through the late 1980s and 1990s, calls for reforming education according to a more rigorous and competitive paradigm came from a wide range of special interests, particularly the business community. Groups within public education—teachers, administrators, state education departments—tended to see change driven from outside their profession as a threat. They resisted most of these efforts as insensitive to the complex problems of working with children. From 1983 to the inauguration of the Bush administration, these two educational paradigms—child-centered versus society-centered—struggled to a draw, with little fundamental change in either the functioning of schools or the achievement levels of students (Vinovskis, 2009).

The No Child Left Behind (NCLB) Act of 2001 (Public Law 107–110) represented a breakthrough for those advocating the rigor of scientifically based practice to the struggling field of education. Professional organizations, particularly teacher unions, strongly resisted its insistence on testing, data, and accountability—including the new mandate that "schools and districts are encouraged or required to implement programs that are proven to be effective through scientifically based research" (U.S. Department of Education, 2002, p. 25).

As a directive, this represented a paradigm shift with an illusive play on the word "child." The popular name given to the 2001 reauthorization of the 1965 Elementary and Secondary Education Act (ESEA) (Public Law 89–10) became "No Child Left Behind." This provided reassurance that the child-centered paradigm of the past generation would be carried forward. However, it was clear that, under the new law, the *methods* that districts were required to use for educating individual children would radically change. In place of accumulated experience, past practice, expertise, professional judgment, and training as the basis for decision making, the standard for educational practice would be the scientific method:

Systematic, empirical methods . . . rigorous data analysis . . . observational methods . . . experimental or quasi-experimental designs . . . [that] allow for replication . . . [and accepted] by a peerreviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review. (President's Commission on Excellence in Special Education, 2002, p. 47)

# RTI A Paradigm for Scientifically Based Educational Decision Making

Debate over the appropriateness of using the scientific method in educational practice carried on during the early 2000s and is beyond the

scope of this book (Melnyk & Fineout-Overholt, 2005; Shavelson & Towne, 2002). But the outcome of the discussion, and the paradigm shift it is generating, are critical to any school intent on adopting RTI. From 2002 through 2010, policymakers and local educational leaders searched for a way of applying the methods of scientific research to the challenge of improving the way children learned. They needed a technique that was rigorous, data based, and peer reviewed (i.e., scientific); it also had to be focused on the growth of individual children rather than aggregate groups, nonintrusive to educational programs, within the capability of educators to implement (i.e., adaptable to a child-centered value system), and finally, cost effective and affordable (i.e., practicable). It was a formidable challenge.

While consensus on an effective approach for a majority of schools is not yet in sight, the technique that is the most widely known, supported, and practiced is RTI. Perhaps most important, the principles underlying RTI were strongly endorsed by the NCLB legislation in 2001 (Neuman, 2002), and in the reauthorization of the Individuals with Disabilities Educational Improvement Act (IDEIA) in 2004 (Public Law 108–446, §614 (b)(6)(B)).

### **ROOTS OF RTI**

RTI originally developed in the wake of the Education for All Handicapped Children Act (EAHCA) of 1975 (Public Law 94–142, reauthorized in 1990 as the Individuals with Disabilities Education Act [IDEA]). Beyond its effects in the schools, the law produced a wave of research into the instruction and evaluation of children with special needs. In terms of classification and eligibility for mandated services, the law introduced what became known as the *discrepancy model* for identification of learning disabilities. It set the standard for classification as a demonstrated gap in performance between a student's tested IQ (on an instrument such as the WISC-IV) and the level of performance that would be expected for a child of his or her age in class and on achievement tests (such as the Woodcock Johnson Achievement Test).

Some researchers were disturbed by this idea and soon dubbed it the "wait to fail" approach to evaluation. In their eyes, it required the child to demonstrate the need for special services by allowing a gap in performance to develop over a period of time, which could run from one to two years or longer. Their response was to search for scientific methods of identifying learning disabilities with a diagnostic, rather than a reactive, approach. They were also interested in finding ways of maximizing the effectiveness of evaluation and instruction for special needs children.

The first movement in this direction arose in the late 1970s, when it was known as data-based program modification (DBPM), or progress monitoring (Deno & Mirkin, 1977). When Stanley Deno and Phyllis Mirkin published the first research on DBPM in 1977, it was one of the earliest peer reviewed approaches to what we today call *data-driven* instruction. The goal of their research was to identify a method to give teachers data in the kind and quantity they would need to literally "drive" their approach to instruction.

In spite of these and hundreds of other efforts from research, the actual practice of both general and special education changed little during the 1980s and 1990s. Evidence for scientific, data-based education ran counter to the child-centered paradigm that had guided education since the 1970s. (If national media attention from publications like TIME, Newsweek, and A Nation at Risk could not produce reform, it should not be surprising that educational research would be largely ignored.) Change came only with the passage of the NCLB legislation in 2001 and the reauthorization of the IDEIA in 2004. Combined, these two pieces of legislation came close to mandating that scientifically based programs be at the foundation of American educational practice. Specifically, the diagnostic practice that had evolved and expanded from progress monitoring (now known as RTI) was strongly recommended by the Department of Education. Since 2004, this federal endorsement has transformed RTI into one of the most highly studied developments in the past half-century of American education.

## **REVIEW OF RTI**

RTI is a multitiered approach to identifying and supporting students with learning and behavior needs. Its focus is to provide high-quality, scientifically based instruction in the general education classroom. The RTI process includes ongoing student assessment and monitoring of individual student progress (progress monitoring) that tracks the results of targeted and "tiered" interventions. These interventions are introduced first to all learners (beginning at the elementary school level), and then increased for those who show a need for additional support. This additional support comes from a multitiered approach that provides differentiated instruction to develop their skills.

While no single RTI model is universally practiced among all grade levels, generally, the three (sometimes four or five) separate tiers of specific

learning strategies offer increasing levels of intensity of instruction to accelerate students' rates of learning, based on their individual needs.

Most RTI models include a three-tier, or three-step, process of increasing levels of support for students that includes high-quality classroom instruction and screening interventions (Tier 1), targeted small-group interventions (Tier 2), and intensive interventions *in addition* to core instruction and comprehensive evaluations (Tier 3) (Buffum, Mattos, & Weber, 2010). Figure 1.1 presents the organization of RTI used throughout this book.



#### Figure 1.1 Response to Intervention: Tiers and Spheres

The illustration shows the RTI process as a three-tier composite of academic and behavioral spheres and suggests that these reflect and reinforce one another. This model is based on the clinical understanding that academic performance is a form of student behavior (see Chapter 7). The two spheres are interdependent and inseparable, and so, an effective RTI program needs to evaluate the full range of each student's performance in school: curriculum work (academics, which is a form of behavior) and social interactions (behavior, which strongly affects academics).

Within each tier, general education teachers, special education teachers, and specialists (including support staff) monitor student progress with increasing intensity, adjust instructional and behavioral intervention according to the level of response, and work collaboratively within instructional support teams (ISTs) to routinely review each student's progress. Data are collected and analyzed and become the basis for decision making. Ultimately, members of the IST share these data with the student's parents in an effort to make educational decisions collaboratively on behalf of the student.

The chapters of this book attempt to provide an overview of the components of an effective RTI implementation. They take the reader through the foundation and history behind RTI to its implementation in the specific content areas of mathematics, literacy, and reading and on to engaging members of the educational community, including parents and administrators. The book is not written as a comprehensive text but rather as a user-friendly introduction to using RTI to improve outcomes for all students.

#### **Chapters of the Book**

Chapter 2. Progressing With Progress Monitoring (Harold J. Dean and John Kappenberg)

Chapter 2 presents progress monitoring as the source, growing since the 1970s, from which RTI would develop in the 1990s. It discusses the current relationship between RTI as a diagnostic program focused on improving instruction, and progress monitoring as a data-driven approach to making educational decisions that support individual students.

The authors include a history of curriculum-based measurement, the research supporting progress monitoring, and a hands-on description of how teachers should administer these techniques. This includes six basic steps: (1) Define a behavior to be monitored; (2) select a measurement strategy; (3) establish a baseline; (4) create a goal to be achieved; (5) develop a chart to monitor progress toward the goal; (6) create a plan for making decisions based on the data from progress monitoring.

The chapter concludes with a review of the benefits of progress monitoring over other forms of assessment within RTI (such as outcome assessment, screening assessment, and diagnostic assessment) and includes a reference to progress monitoring tools and Internet resources.

# *Chapter 3. The Instructional Support Team: A Foundation of the RTI Process (Arlene B. Crandall, Erin E. Ax, and Dolores T. Burton)*

This chapter focuses on the IST as an essential component of an RTI program. After defining the key kinds of ISTs (teacher assistance team, prereferral intervention team, mainstreaming assistance team, school-based consultation team) and the problem-solving model, the authors

reinforce the concept that RTI represents a paradigm shift in our educational process, changing the focus from testing as a summative assessment to testing as an instructional and diagnostic tool. An essential part of this is the benefit of instructional and diagnostic decisions made not by individual professionals but by an IST.

The authors present research supporting the effectiveness of ISTs followed by a detailed and hands-on analysis of the IST meeting process, including the steps needed before the meeting, during the meeting, and after the meeting. The section discussing the meeting includes six key elements needed for success. The chapter includes a case study of the IST meeting process, which illustrates in detail each of the elements included in the chapter.

## Chapter 4. Literacy Instruction: Tier 1 (Lynn Burke and John Kappenberg)

Chapter 4 introduces the role of RTI in diagnosing and supporting individual students who struggle with reading. It focuses on understanding the background knowledge in literacy needed to properly apply RTI in a Tier 1 setting. The chapter presents the process through the eyes of a teacher who is learning how to introduce RTI into her instruction, and her own struggle to make sense of the transition from traditional methods to a data-based model. The chapter includes an update on recent developments in our knowledge of the neurological foundation of reading as a complex skill and as the foundation for almost every other academic discipline. This information is described as essential to selecting effective interventions within RTI. It concludes with a prospective on future developments of RTI in the area of reading.

## Chapter 5. Literacy Intervention: Tiers 2 and 3 (Sarah McPherson and Dolores T. Burton)

This chapter continues the application of RTI to reading and presents material needed to understand its use in Tiers 2 and 3. It begins with a discussion of several common myths about literacy, along with the most recent findings from research, particularly those that have a direct bearing on the way reading is taught and evaluated in an RTI setting.

The chapter presents a hands-on account of some of the most effective techniques currently known for the introduction of RTI into school reading programs. Topics include the following:

- definitions of learning disabilities
- early childhood assessment and intervention

- interventions used in Tier 1, Tier 2, and Tier 3
- discussion of NCLB and IDEA mandates for assessment of learning disabilities, alphabetics, and other specific reading issues
- the Zabala four-step SETT framework
- quality indicators for literacy in childhood, middle level, and high school level literacy programs
- universal screening
- progress monitoring in reading
- curriculum-based measurement reporting
- instructional tools for RTI
- resources for the introduction of RTI into reading programs (National Research Center on Learning Disabilities; RTI Action Network; Reading Rockets)

This chapter places special emphasis on the supportive technology available for reading in an RTI program.

# *Chapter 6. Mathematics Difficulty or Mathematics Disability? RTI and Mathematics (Dolores T. Burton and John Kappenberg)*

Low achievement in mathematics is documented by international comparisons of students' performance in mathematics and is a matter of national concern. This chapter examines the difference between mathematical difficulty and dyscalculia and how an RTI program, with careful attention to fidelity of implementation, can assist in the diagnosis and remediation of mathematical difficulties.

While there are several definitions of dyscalculia, they all share three elements: (1) the presence of difficulties in mathematics, (2) some degree of specificity to these difficulties (i.e., the lack of across-the-board academic difficulties), and (3) the assumption that the difficulties are caused in some way by brain dysfunction. The chapter describes examples of different learner characteristics that can help the teacher in applying error pattern analysis and diagnosing dyscalculia within the RTI model for mathematics. Differences among the three tiers are demonstrated using case studies. Technology resources specific to mathematics and RTI are provided for further study.

*Chapter 7. Response to Intervention and Positive Behavior Support (C. Faith Kappenberg and John Kappenberg)* 

One of the most important applications of RTI is use of positive behavior support (PBS) and other interventions for problems with student

behavior and classroom management. Teachers cannot accurately evaluate learning unless behavior is stabilized; PBS provides the knowledge and skills for teachers to do this, and RTI can become a bridge linking it to classroom instruction within a common framework. This chapter presents practical information essential to the use of PBS in stabilizing student behavior in both general education and inclusive settings.

The chapter begins with a thorough review, written for a teacher's perspective, of PBS theory and practice, including reference to its mandated use under IDEA regulations and its role in each of the RTI tiers. It includes an analysis of the challenges teachers and supervisors face in balancing their requirements for academic success with the need to reduce disruptive behavior in order to achieve that goal. Examples of functioning programs in actual schools are included.

This is followed by a presentation of the skills needed to analyze student behavior and develop effective responses, including teacher- and team-friendly tools for effective PBS. The chapter concludes with specific tips on how to implement PBS in each of the tiers of RTI and information on locating additional training for schools and districts.

# *Chapter 8. Emerging Agendas in Collaboration: Working With Families in the RTI Process (John Kappenberg and Helene Fallon)*

Collaboration and teams are central to the RTI process and are discussed in chapters 3, 9, and 10. One critical, but often neglected, area of collaboration is the parent–professional relationship. This chapter serves as a resource for teachers who are beginning to work with RTI and need practical ideas on how to work with parents in ways that are truly collaborative, rather than merely supportive.

It begins with a review of provisions in NCLB (2001) and IDEIA (2004) that require specific forms of parent–professional collaboration and then describes alternative approaches designated as the *client model* and the *consultant model*. Within the client model, professionals assume a position of authority and control, based on their expertise, and parents assume a supportive role in their child's education. In the consultant model, professionals maintain full control and responsibility for the educational process—including RTI—but, wherever possible, parents take on the role of active contributors, providing specialized expertise from their unique experience with the child and insight into his or her behavior. Their role is similar to that of other consultants who contribute to the child's support under RTI, such as psychologists, social workers, and speech therapists; they do not direct the process, but, because of their essential expertise, they are treated as invaluable contributors.

The chapter concludes with extensive review of the research on promising practices in parent–school relationships and organizations that support this research, such as the National Network of Partnership Schools, the IDEA Partnership, and Communities of Practice.

# *Chapter 9. Leadership: The Role of District and School Administrators in Implementing RTI (Patricia Ann Marcellino and Dolores T. Burton)*

This chapter reviews the role and goal of the two top leaders in a district's introduction of RTI: the principal (understood as the *internal change agent*), and the superintendent (understood as the *external change agent*). Although individuals in these roles do not normally work directly within the RTI process, both they and their teachers need to understand that without their leadership, a successful introduction of RTI is nearly impossible. The chapter describes their leadership goals (professional collaboration, consensus building, cross-training, and ongoing communication), and their leadership roles (building manager, instructional leader, political activist, and central evaluator), within a schoolwide or districtwide RTI initiative.

The authors review a two-step process for the introduction of an RTI program, with an emphasis on strategy, structure, supervision, and systems analysis. It includes (1) a needs analysis of the district and school based on the SWOT management technique (strengths, weaknesses, opportunities, and threats), and (2) an explanation of the business management functions using the POLE process (planning, organizing, leading, and evaluating).

The chapter is written with an eye to the needs of teachers, preservice teachers, and teacher educators, as well as administrators, all of whom need to recognize the central role that leadership plays in the process of introducing RTI into a school or district.

# *Chapter 10. Managing Time: RTI in the Middle and High School Master Schedule (Lydia Begley and Dolores T. Burton)*

While resources describing strategies for implementing an RTI program at the elementary level exist, there is little research that focuses on the secondary schools. This chapter includes specific ideas and "how to's" for teachers and administrators that can assist them in implementing RTI in their classrooms and buildings.

The chapter describes potential models for the use of RTI in middle and high school as well as models for how schools can support and organize ISTs around research-based RTI concepts to diagnose learning disabilities. It

demonstrates that RTI, although challenging to implement at the secondary level, can work with some minor adjustments to scheduling, flexible staff members, and creative administrators who understand the scheduling process and the need for successful collaboration among members of ISTs. Specific ideas for using technology to monitor student progress at the secondary level are addressed to help teachers keep track of the lowest performing students. A case study is included to demonstrate "theory into practice," and technology resources are provided for further assistance for implementation.

*Epilogue: Why Implement RTI?* (Dolores T. Burton and John Kappenberg)

The epilogue reviews the reasons to implement some of the ideas presented in this book and provides some concluding thoughts of the authors.