

## RTI Defined

The National Research Center on Learning Disabilities (NRCLD, 2006) defines RTI as:

*"...an assessment and intervention process for systematically monitoring student progress and making decisions about the need for instructional modifications or increasingly intensified services using progress monitoring data."*

RTI is an integrated approach to service delivery that encompasses general, remedial and special education through a multi-tiered service delivery model. It utilizes a problem-solving framework to identify and address academic and behavioral difficulties for all students using scientific, research-based instruction. Essentially, RTI is the practice of: (a) providing high-quality instruction/intervention matched to all students needs and (b) using learning rate over time and level of performance to (c) make important educational decisions to guide instruction (National Association of State Directors of Special Education, 2005). RTI practices are proactive, incorporating both prevention and intervention and is effective at all levels from early childhood through high school.

RTI is intended to reduce the incidence of "instructional casualties" by ensuring that students are provided high quality instruction with fidelity. By using RTI, districts can provide interventions to students as soon as a need arises. This is very different, for example, from the methods associated with the aptitude-achievement discrepancy models traditionally utilized for SLD identification which have been criticized as a "wait to fail" approach.

## RTI: Big Ideas

RTI is comprised of seven core principles that represent recommended RTI practices (Mellard, 2003). These principles represent systems that must be in place to ensure effective implementation of RTI systems and establish a framework to guide and define the practice.

- 1. Use all available resources to teach all students.** RTI practices are built on the belief that all students can learn. One of the biggest changes associated with RTI is that it requires educators to shift their thinking: from the student--- to the intervention. This means that the initial evaluation no longer focuses on "what is wrong with the student." Instead, there is a shift to an examination of the curricular, instructional, and environmental variables that change inadequate learning progress. Once the correct set of intervention variables have been identified, schools must then provide the means and systems for delivering resources so that effective teaching and learning can occur. In doing so, schools must provide resources in a manner that is directly proportional to students' needs. This will require districts and schools to reconsider current resource allocation systems so that financial and other support structures for RTI practices can be established and sustained.
- 2. Use scientific, research-based interventions/instruction.** The critical element of RTI systems is the delivery of scientific, research-based interventions with fidelity in

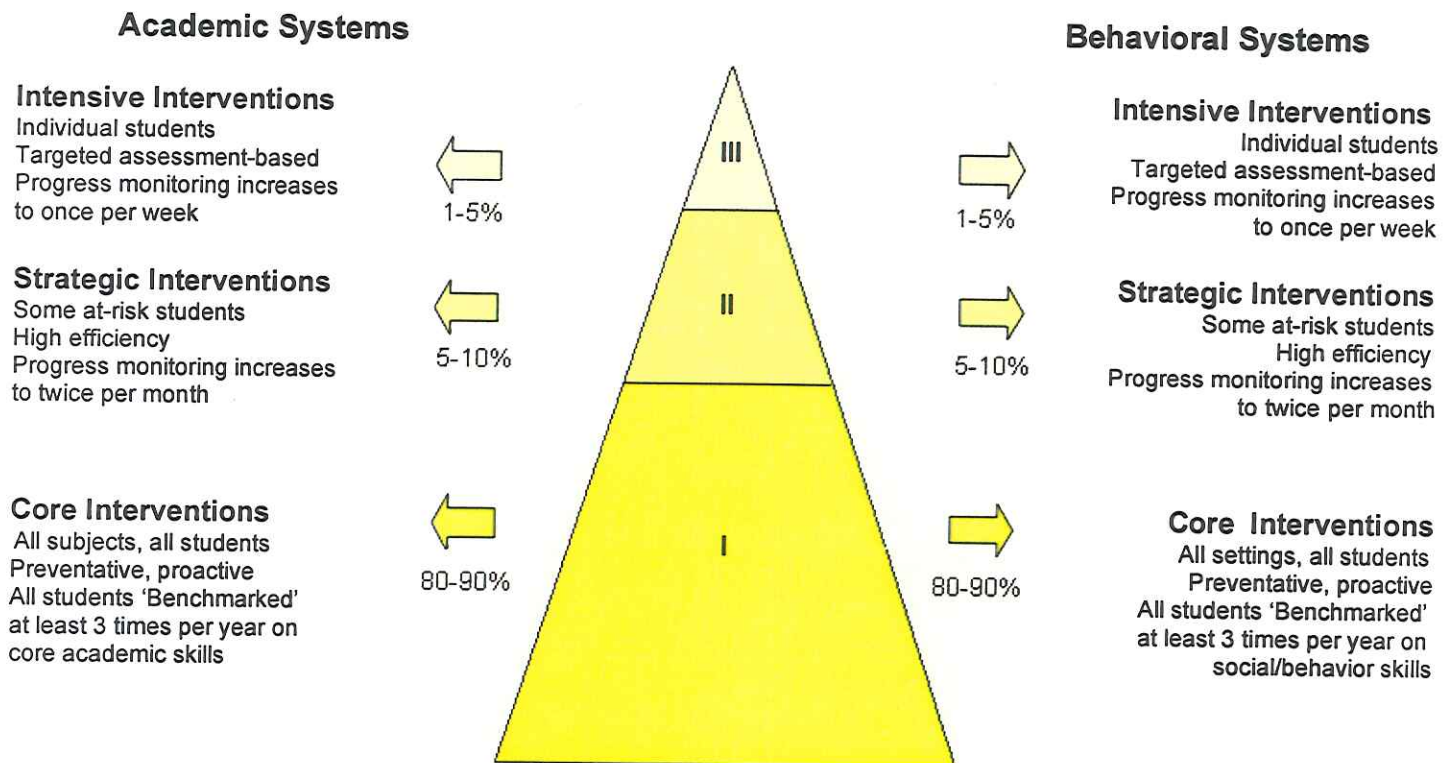
general, remedial and special education. This means that the curriculum and instructional approaches must have a high probability of success for the majority of students. By using research-based practices schools efficiently use time and resources and protect students from ineffective instructional and evaluative practices. Since instructional practices vary in efficacy, ensuring that the practices and curriculum have demonstrated validity is an important consideration in the selection of interventions. With the absence of definitive research, schools should implement promising practices, monitor the effectiveness and modify implementation based on the results.

3. **Monitor classroom performance.** General education teachers play a vital role in designing and providing high quality instruction. Furthermore they are in the best position to assess students' performance and progress against grade level standards in the general education curriculum. This principle emphasizes the importance of general education teachers in monitoring student progress rather than waiting to determine how students are learning in relation to their same-aged peers based on results of state-wide or district-wide assessments.
4. **Conduct universal screening/benchmarking.** School staff conduct universal screening in all core academic areas and behavior. Screening data on all students can provide an indication of an individual student's performance and progress compared to the peer group's performance and progress. These data form the basis for an initial examination of individual and group patterns on specific academic skills (e.g., identifying letters of the alphabet or reading a list of high frequency words) as well as behavior skills (e.g., attendance, cooperation, tardiness, truancy, suspensions, and/or disciplinary actions). Universal screening is the least intensive level of assessment completed within a RTI system and helps educators and parents identify students early who might be "at-risk." Since screening data may not be as reliable as other assessments, it is important to use multiple sources of evidence in reaching inferences regarding students "at risk."
5. **Use a multi-tier model of service delivery.** A RTI approach incorporates a multi-tiered model of service delivery in which each tier represents an increasingly intense level of services associated with increasing levels of learner needs. The system described in this manual reflects a three-tiered design. All multi-tiered systems, regardless of the number of levels chosen, should yield the same practical effects and outcomes.

In a RTI system, all students receive instruction in the core curriculum supported by strategic and intensive interventions when needed. Therefore, all students, including those with disabilities, are found in Tiers I, II, and III. Important features, such as universal screening, progress monitoring, fidelity of implementation and problem solving occur within each tier. A matrix illustrating these features within a tiered service delivery model is included in Appendix A. The basic tiered model reflects what we know about students in school: their instructional needs will vary. Thus, the nature of the academic or behavioral intervention changes at each tier, becoming more rigorous as the student moves through the tiers.

Figure 1 illustrates layers of instruction that can be provided to students according to their individual needs. Tier I represents the largest group of students, approximately 80-90%, who are performing adequately within the core curriculum. Tier II comprises a smaller group of students, typically 5-10% of the student population. These students will need strategic interventions to raise their achievement to proficiency or above based on a lack of response to interventions at Tier I. Tier III contains the fewest number of students, usually 1-5%. These students will need intensive interventions if their learning is to be appropriately supported (Tilly, 2006).

Figure 1: Three-Tier Model of School Supports



6. **Make data-based decisions.** Decisions within a RTI system are made by teams using problem solving and/or standard treatment protocol techniques. The purpose of these teams is to find the best instructional approach for a student with an academic or behavioral problem. Problem solving and standard treatment protocol decision making provide a structure for using data to monitor student learning so that good decisions can be made at each tier with a high probability of success. When using the problem solving method teams answer four interrelated questions: (1) Is there a problem and what is it? (2) Why is it happening? (3) What are we going to do about it? (4) Did our interventions work? (NASDSE, 2005) Problem solving and standard treatment protocol techniques ensure that decisions about a student's needs are driven by the student's response to high quality interventions.
7. **Monitor progress frequently.** In order to determine if the intervention is working for a student, the decision making team must establish and implement progress monitoring. Progress monitoring is the use of assessments that can be collected

frequently and are sensitive to small changes in student behavior. Data collected through progress monitoring will inform the decision making team whether changes in the instruction or goals are needed. Informed decisions about students' needs require frequent data collection to provide reliable measures of progress. Various curriculum-based measurements are useful tools for monitoring students' progress.

### **Features of a Tiered Service Delivery Model**

As noted earlier, a RTI approach incorporates a multi-tiered system of service delivery in which each tier represents an increasingly intense level of services. Students move fluidly from tier to tier. A multi-tiered concept aligns all available resources to support and address students' needs regardless of their eligibility for other programs. It is important to note that RTI is not a placement model; it is a flexible service model.

### **Tier I-Core Instruction**

In the RTI framework, all students in Tier I receive high quality scientific, research-based instruction from general education teachers in the **core curriculum**. The core curriculum provides the foundation for instruction upon which all strategic and intensive interventions are formulated. While Tier I instruction occurs in the general education setting, it is not necessarily grade level instruction. Instruction at Tier I includes all developmental domains such as behavioral and social development along with instruction in academic content areas. Tier I instruction must be both differentiated and culturally responsive to serve approximately 80-90% of the student body and is effective for the vast majority of students. At this phase, general education teachers match students' prerequisite skills with course content to create an appropriate instructional match and use instructional strategies with fidelity that are evidence-based.

**Fidelity** refers to the degree to which RTI components are implemented as designed, intended, and planned. Fidelity is achieved through sufficient time allocation, adequate intervention intensity, qualified and trained staff, and sufficient materials and resources. Fidelity is vital in universal screening, instructional delivery and progress monitoring.

An important first step in identifying at-risk students is the use of **universal screening and/or benchmarking** of students in all core academic areas and behavior. Students who are at-risk are not suspected as having a disability absent other data or indicators. At Tier I, universal screening for all students is conducted at least three times during a school year: fall, winter and spring. Scores earned at different times during the year are used to determine whether a student's performance and progress is increasing, decreasing, or staying the same. Universal screening is typically done through brief assessments such as curriculum-based measures (CBMs). Significant numbers of students meeting proficiency levels (e.g., 80% or greater) based on the results of universal screening tools is an indicator that the instruction in the core curriculum is effective. When there is evidence that instruction in the core curriculum is not effective, schools must examine whether it is occurring school-wide or whether it is a class-specific problem. If, for example, a school has a high percentage of students with a particular risk factor for low achievement (e.g., low-income) this does not automatically mean it is acceptable to refer a higher proportion of students in that school for special

education services. Instead, consideration should be given to redesigning the core program so that it meets the needs of the school's core student population. When the core curriculum is effective, interventions within the core will need to be made for at-risk students in accordance with their individual needs based on universal screening/benchmarking data, followed by progress monitoring.

While a variety of universal screening tools are available, schools are encouraged to choose tools that are easy to administer and analyze. Schools may utilize multiple convergent sources for screening students, including: district-wide assessments; existing data; classroom data; CBMs; and other measurements. To ensure valid and reliable results, directions for administering screening tools and scoring the results should be explicitly followed. Teachers and staff administering and scoring screening tools should receive ongoing professional development to ensure fidelity of administration and reliability of scores. Schools should identify a standard procedure with specified criteria or benchmarks for identifying students "at-risk" (e.g., create a table of cut points or patterns of performance, etc.). However, a cut score alone does not warrant movement to Tier II absent Tier I interventions that have been tried and proven to be unsuccessful.

**Progress monitoring** documents student growth over time to determine whether the student is progressing as expected in the core curriculum. In Tier I, progress monitoring is recommended in addition to general screening/benchmarking measures for those at-risk students that were not performing in accordance with standards.

Analysis of the screening data and progress monitoring will expose *false positives*, (students that appear to have skill deficits but do not) and *false negatives* (students that do not appear to have skill deficits, but do). Unidentified, false positives result in an over identification of students in need of strategic or intensive interventions that can be costly and time consuming. False negatives, on the other hand, can result in an under identification of students in need of Tier II or Tier III interventions.

Schools should implement screening instruments with fidelity and emphasize high sensitivity and specificity. When choosing screening instruments, greater emphasis should be placed on sensitivity to ensure identification of at risk students. The trade off can be increased false positives which will later be identified through progress monitoring.

CBMs are primarily used as a method for progress monitoring and are characterized as brief, easy to administer and score, and produce measures that are good predictors of a student's academic ability. A list of various CBM tools can be found in the resources on page 20. CBMs are used for both screening/benchmarking and progress monitoring. Other measures of student performance such as classroom observations, state-wide and district-wide assessments, and other standardized testing may be considered when measuring the effectiveness of the interventions provided.

The data collected during progress monitoring at Tier I to at risk students helps teams make informed decisions at the classroom level. These data provide a picture of the student's performance and rate of growth (e.g., progress) to inform instructional and



curricular changes so that every student reaches proficiency on targeted skills. Students who do not reach a proficiency level at Tier I will need more strategic interventions. **Lack of responsiveness** is defined as the rate of improvement, or a progress slope, that is not sufficient for the student to become proficient with state standards without more interventions. Five weeks or more after progress monitoring has been initiated for at risk students is suggested as a sufficient period to review lack of responsiveness at Tier I. The decision to advance to Tier II is based upon an analysis of the progress monitoring data and a determination of a lack of responsiveness at Tier I.

### **Tier II-Strategic Interventions**

At Tier II, **strategic interventions** are provided to students who are not achieving the desired standards through the core curriculum alone. Tier II typically consists of 5-10% of the student body. Strategic interventions supplement the instruction in the core curriculum provided in Tier I and should be targeted at identified student needs and stated in an intervention plan. Decisions about selecting the appropriate strategic interventions should be made when a student enters Tier II and then reviewed through progress monitoring at appropriate intervals after interventions are implemented.

Strategic interventions are intended to be short-term in duration (e.g., 9-12 week blocks) and are in place for immediate implementation. Interventions are generally provided in small groups of three to six students and may occur in the main classroom or in other settings. It is recommended that interventions at Tier II consist of three to four sessions per week at 30-60 minutes per session. Instruction must be provided by trained staff and supervised by individuals with expertise in the intervention chosen by the decision making team. Students may benefit from more than one Tier II intervention cycle.

Schools set up and deliver strategic interventions that are designed to address routine problems exhibited by students. When selecting materials for strategic interventions, districts and schools are encouraged to identify 2-3 programs, or fewer, per academic area and to utilize on a district-wide or school-wide basis for behavior. Districts or schools can identify additional programs, though limiting programs to two or three prevents redundancy and a lack of coordination across or among programs. It also reduces the amount of professional development that would be required to implement strategic interventions.

At Tier II, progress monitoring involves reviewing existing data of the student's performance and progress using CBM tools. Progress monitoring is done more frequently at Tier II than Tier I, usually occurring at least two times per month, or more frequently as determined by the decision making team. Data gathered through Tier II progress monitoring informs teams of modifications needed to student intervention plans. For example, if progress monitoring data reflects student performance below the goal line over four consecutive periods of data collection, the amount and frequency of the intervention should be increased, or new strategic interventions should be added.

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meeting proficiency after it is determined that Tier II strategic interventions have been implemented with fidelity, the student will require intensive interventions at Tier III.

### **Tier III - Intensive Interventions**

**Intensive interventions** at Tier III are designed to accelerate a student's rate of learning by increasing the frequency and duration of individualized interventions based on targeted assessments that analyze the lack of responsiveness to the interventions provided at Tier I and Tier II. Intensive interventions at Tier III may either support and enhance instruction provided at Tier I and supported by Tier II, or be substituted for a portion of the Tier I and Tier II interventions if those interventions have been tried with increased frequency and duration and proven ineffective. Students at Tier III are those students who are performing significantly below standards and who have not adequately responded to high quality interventions provided at Tier I and Tier II.

Tier III generally serves fewer than 5% of the student body. Intensive interventions are usually delivered in groups of no more than three students and may occur longer than 9-12 week blocks. Progress monitoring at Tier III is completed more frequently, at least on a weekly basis. An example of an intervention plan at Tier III may include two 30-minute sessions daily, in addition to the interventions the student is receiving in the core curriculum.

Prior to selecting intensive interventions, **targeted assessments** are typically conducted when a student enters Tier III. These assessments use direct measures in addition to analysis of RTI data to provide more in-depth information about a student's instructional needs and are used to identify the student's skill deficits. Targeted assessments may be administered by reading specialists, Title I/LAP teachers, school psychologists, special education teachers, specially trained general education teachers, or other specialists. Targeted assessments include the use of interviews, observations, error analysis techniques, CBMs, CBM mastery measures, which are used to target a very narrow skill, other standardized assessments, and/or functional behavioral assessments. A sample approach using error analysis in the area of reading is provided in Appendix G.

Students who are successful at Tier III may be returned to previous tiers and/or the core curriculum. Students who are not successful after multiple Tier III intensive interventions must be considered for a referral for special education evaluation and/or other long-term planning (e.g., 504 plan, additional Tier III cycle, etc.).

### **Problem Solving Process**

Problem solving is a data-based decision making process that is used to identify needed interventions for students in Tiers I, II and III. Decisions are made by teams that are composed of individuals who are qualified to make the important educational decisions to help students succeed in school. As a general rule, the composition of a decision making team changes by adding additional specialists' expertise as students move from tier to tier. When using problem solving or standard treatment protocol techniques, decision making teams should always include the student's general



education teacher(s) and parents. If districts choose to use existing teams, they may need to modify procedures to align with the problem solving steps discussed below. Decision making team participants may include: the principal; academic specialists (Title I, ELL, and literacy consultants); special education teachers; school psychologists; speech and language pathologists and other educational staff associates; additional general education staff; and paraeducators, in addition to parents and the general education teacher(s) of the student.

To facilitate the problem-solving process at any of the tiers, I, II, or III, the information collected during assessment must inform instructional decision-making. By sampling information from content domains (Instruction, Curriculum, Educational Environment, and Learner) which are most relevant to instruction and learning, teams collect data by using four assessment modalities. These are called the R.I.O.T. procedures (Review [of records and products]; Interview [of teachers, students and parents]; Observe; and Test). Information about the content domains and R.I.O.T procedures are provided in Appendices B and C. An example of using problem solving to address a student's needs in the area of writing may be found in Appendix D.

In making decisions, teams should use the following approach:

- **Define the problem** - When a concern is raised, the first step is to review the concern and attempt to identify the problem. The decision making team should first review existing student data to determine specific problems. For example, a student should not be identified as simply having an academic or a behavior problem. The team should try to narrow the problem (based upon available data) to identify the deficit skill area(s) (e.g., phonemic awareness, problem solving skills, math calculations, vocabulary, reading comprehension or peer interactions, etc.).
- **Analyze the cause** - Once the problem is defined, the decision making team needs to develop a hypothesis as to why the problem is occurring and continuing. This involves analyzing those variables that can be altered through instruction in order to find an instructional solution. This includes questions of fidelity, missing skills, motivational factors, or lack of exposure to the general curriculum. The team should focus on explanations of the problem that can be addressed through instruction. In addition to the cause of the problem, the team needs to consider the student's rate of learning. In doing this, the team reviews the student's learning trend (e.g., progress) in the areas identified by the decision making team. The team should also compare the student's progress to peers over time. In analyzing the problem, it is helpful for the team to consider the four different content domains as illustrated in Appendix B.
- **Develop a plan** - Once the problem has been analyzed, the team identifies interventions that will meet the student's needs. The team does this by developing a plan that includes: an implementation timeframe (e.g., 4 weeks, 6 weeks, or 8 weeks); the frequency of the interventions (how often the intervention will be provided and for how many minutes per week); who will provide the intervention (e.g. classroom teacher, Title I teacher, etc); and a timeframe to evaluate the effectiveness of the intervention. A sample of an intervention plan can be found in

Appendix F. The student's plan should outline the goal for progress. The team plots an "aim-line" (graphic representation) depicting the desired rate of progress a student needs to reach the goal from the current baseline.

- **Implement the plan-** Interventions must be implemented with fidelity. To ensure fidelity, qualified staff must deliver the interventions according to the prescribed process and prescribed timeframe. Schools should document their delivery of the interventions using multiple sources (e.g. observation notes, lesson plans and grade books, student work reflecting instructional elements and graphs of student progress, etc.).
- **Evaluate the plan-** In order to determine if the intervention is working for a student, the team must collect data through progress monitoring. The frequency of progress monitoring depends on the tier, but in all cases the process is similar. A student's current performance and progress is compared to their projected "aim-line." If performance falls significantly below the aim-line over three or four consecutive monitoring periods, the decision making team should revisit the intervention plan to make appropriate modifications or revisions.

### **Standard Treatment Protocol**

A standard treatment protocol is a viable alternative approach to problem solving and may be used along with, or in some cases in place of problem solving, to make decisions within a RTI system. Standard protocol is a process where student decisions are made using an established response to regular occurring circumstances. Implementation usually involves a trial of fixed duration (e.g., 9-15 weeks) delivered in small groups or individually. A standard treatment protocol approach can be applied to make universal initial decisions for struggling students with similar problems. Recent research has shown that this approach can be successful when applying early interventions in reading. When students are successful in the treatment trial, they are returned to the core curriculum. When students are unresponsive to the treatment trial, they are provided individualized instruction supported through either strategic or intensive interventions.

Standard treatment protocol may be helpful for some types of decision making early on within a multi-tiered system. In general, problem solving and standard treatment protocol are not exclusive and many models use both approaches. The problem solving approach is often used more when making decisions about behavior. Standard treatment protocol often proves more successful early on in reading because it allows teams to make quick, evidenced-based decisions for a large number of students. RTI systems tend to make decisions in mathematics and writing using either approach or a combination of the standard treatment protocol and problem solving approaches.

### **RTI and Behavior**

IDEA 2004 discusses the use of RTI in relation to the identification and support for students with possible specific learning disabilities. However, there is another dimension that stems from the common observation that many students struggle