

# Response to Intervention



## Investigating the New Role of Special Educators

Kelli D. Cummings • Trent Atkins

Randy Allison • Carl Cole

Special educators wear many different hats in our current educational system. Due to recent federal legislation, they may be required to wear a couple of new ones. This article provides a glimpse into past roles and begins to lay some groundwork for the future role of special educators in a Response to Intervention (RTI) context. This article (a) highlights the congruence between legislative acts impacting education, (b) explains how legislative acts can be used to help schools be more proactive in meeting the needs of struggling students, (c) describes key elements of an RTI model, (d) explains the role of formative assessment, (e) explains the application of RTI with a school-based case example, and (f) concludes with a discussion of how the current skills of special educators can support schools beginning to adopt RTI.

### Congruence Between Legislative Acts Impacting Education

The Individuals With Disabilities Education Improvement Act of 2004 (IDEA, 2004) intersects with The No

Child Left Behind Act of 2001 (NCLB), and these two pieces of legislation set the stage for an approach to special education eligibility and school improvement called RTI. Both IDEA 2004 and NCLB call for improving the outcomes for all students by using scientifically based instructional practices. RTI specifically requires documentation of appropriate use of scientifically based interventions before a student is referred for a traditional special education evaluation. Documentation of appropriate instructional interventions is not a new feature of eligibility determination. IDEA 1997 states that:

In making a determination of eligibility under paragraph (4)(A), a child shall not be determined to be a child with a disability if the determinant factor for such determination is — (A) lack of appropriate instruction in reading, including the essential components of reading instruction (as is defined in section 1208(3) of the Elementary and Secondary Education Act of 1965). (20 U.S.C. 1414(b)(5)(A))

IDEA builds on the requirements of its predecessor by including specific language on the use of RTI procedures such as “a process that determines if the child responds to scientific research-based intervention as a part of the evaluation procedures” (Public Law (P.L.) 108-446 § 614 [b][6][A]; § 614 [b][2 & 3]). Clearly both NCLB and IDEA give school districts the legal authority to put an RTI system in place. Implementing such a system simultaneously addresses the needs of individual students who are struggling as well as assists schools in meeting adequate yearly progress (AYP). Special education teachers, with their knowledge of assessment, instruction, and individualized interventions, are uniquely positioned to impact and assist schools as they begin to fully implement RTI procedures.

### Legislative Acts: Helping Special Educators be Agents for Student Access to the Curriculum

Even before the implementation of the Education for All Handicapped Children Act of 1975, special education teachers differentiated instruction in order to meet the needs of individuals with disabilities. Over the course of the last few decades special educators, and the stu-

dents they serve, have moved from a system in which specialized instruction was primarily provided in separate facilities to one in which students with and without disabilities are served in public school settings. However, the process of integration has always been centered on issues of access—and merely providing access to the building does not result in equity. Facilitating access to programs and curricula are the key elements of the current roles and responsibilities of today's educator. RTI, with a focus on collaboration between all school professionals and a commitment to effective strategies that support integration and student proficiency, provides an excellent opportunity for all students to have meaningful access to the general education curriculum.

To respond to the recent legislation and summarize the nearly 30 years of extensive data from both research and practice on the topic of RTI, the National Association of State Directors of Special Education (NASDSE, 2005) convened a panel of professionals to provide guidance to state and local education agencies fostering effective RTI implementation across general, remedial, and special education. Key principles outlined in the NASDSE document are that:

- School systems must reorganize to provide multiple tiers of generally effective instructional practices with a core curriculum that meets the needs of most (e.g., 80%) students.
- Across the multiple tiers, all students are provided with access to high quality instruction matching students' needs.
- Formative assessment data are gathered to document the match between students' needs and their instruction.
- RTI is evaluated across tiers using a problem-solving model of data-based decision making.

The authors of the NASDSE document note that it is not the specific roles of special education professionals that need to change, but rather the skill sets within those roles which need to broaden as schools coordinate service deliv-

**Figure 1. A Comparison and Contrast of Roles of the Special Educator in a Response to Intervention (RTI) Context**

Domain	Historical Context	RTI Context
<i>Assessment</i>	Starting point is typically when a student is referred for special education evaluation.	Starting point is before there are serious learning problems (i.e., universal screening).
<i>Testing Instruments</i>	Summative (single point) assessment, typically using global achievement tests.	Formative (multiple measures using different but equivalent test forms) assessment of a student's learning over time.
<i>Intervention</i>	Provide intensive instruction to a relatively stable group of students within a given school year.  Service delivery is contingent upon a student's eligibility status.	Provide differentiated instruction to a variety of students; grouping is flexible and dynamic.  Service delivery is contingent upon a student's need.
<i>Professional Environment</i>	Somewhat isolated. Work with general educators is relatively infrequent.	Collaborative. Consultation with educators and specialists within a building is required.

ery within an RTI context. The repertoire of special educators will expand as they assist all educators with identifying student needs early, providing a differentiated core curriculum that meets students' needs, collecting formative assessment data to evaluate the effectiveness of a variety of interventions, and providing consultative services to modify support when instruction is not having the desired effect (see Figure 1 for a description of the evolution of special educators' roles).

**RTI is rooted in special education with the historical purpose of addressing educational needs of students.**

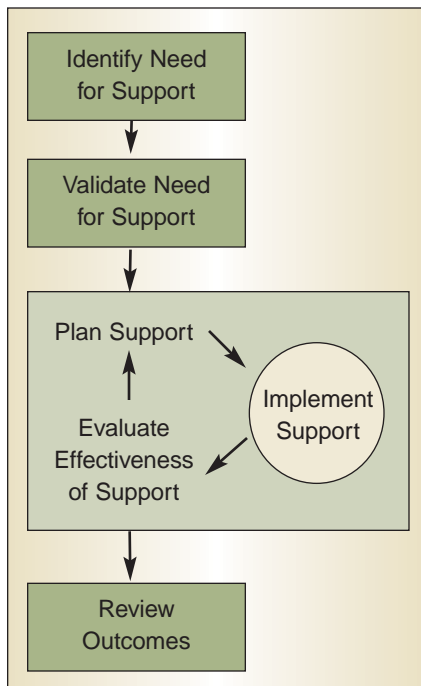
Although the specifics of how each of the steps of the RTI process will be implemented vary from school to school, there are certain critical elements that schools must have in place. Already discussed in this article is the requirement of a continuum of generally effective instructional supports (e.g., multi-tiered approach). Following is a detailed description of the decision-

making model and the assessment tools used to evaluate RTI across the continuum from general education to special education.

**Key Elements of an RTI Model**

RTI is rooted in special education with the historical purpose of addressing educational needs of students. For over 20 years, researchers and practitioners have noted significant gains in both student and school-level achievement in academic and social-behavioral domains when formative evaluation, accompanied with a continuum of effective instructional techniques, were used (Heller, Holtzman, & Messick, 1982; Simmons et al., 2002). Recent councils (e.g., National Research Council, 2002; President's Council on Special Education Excellence, 2002) who have advised on the reauthorization of IDEA state that any efforts to scale up RTI ought to be based on problem-solving models which have documented effectiveness in school settings and through research (Pasternack, 2002). The challenge lies in integrating systems of service delivery and implementing a decision-making model across the continuum of general and special education.

**Figure 2. Steps in the Outcomes-Driven Model**



Note. "Steps in the Outcomes Driven Model," ©2007. Dynamic Measurement Group, Eugene, Oregon. Reprinted with permission.

### Outcomes Drive the Decisions

Regardless of the specific method chosen to implement RTI, research and practice have identified procedural models with key decision-making steps that promote school effectiveness and collaboration. Successful models have in common a core set of values regarding the nature of assessment. In them, assessment is linked to intervention, is formative, and is relevant to the curriculum.

### Steps in an Outcomes-Driven Model

The Outcomes-Driven Model is one specific example of a useful framework for RTI implementation. This model extends previous work from problem-solving models (Deno, 1989; Shinn, 1995; Tilly, 2008) and the initial application of the problem-solving model to early literacy skills (Kaminski & Good, 1998). Yet the Outcomes-Driven Model is unique due to its focus on early intervention and universal screening. The general questions addressed by a problem-solving model include: (a) What is the problem?

(b) Why is it happening? (c) What should be done about it? and (d) Did it work? (Tilly, 2008). The Outcomes-Driven Model was developed to address these questions, but within a prevention-oriented framework designed to preempt early learning difficulties and ensure step-by-step progress toward important outcomes. The Outcomes-Driven Model accomplishes these goals through a set of four educational decisions: (a) identify a need for support; (b) validate the need for support; (c) plan, implement, evaluate, and modify support; and (d) review outcomes.

*Identifying the Need for Support.* The first step in the Outcomes-Driven Model is identifying the need for support. During this phase, universal screening occurs which consists of brief assessments administered to students in an entire school or classroom. This particular step identifies students early who might need additional instruction in order to achieve meaningful goals. Students who demonstrate low levels of performance on the screening task are red flagged for further evaluation in order to determine the level of support required to address the need. Special educators are vital members of the assessment team that collects this screening data (see Figure 2).

*Validating the Need for Support.* The next step is validating the need for the support identified in step one. The purpose of this step is to rule out easy reasons for a child's poor performance (i.e., child had a bad day or did not understand the directions) and to ensure that the educator is reasonably confident that the child needs additional support. One way to validate a student's need for support is to compare a student's performance on the screening assessment with other information that the teacher has about that child. If the child is new to the school or if it is the beginning of the year and no other data are readily available, the teacher may choose to assess the student across multiple days and examine the trend in performance. If the student continues to display a pattern of poor performance across at least three different assessment periods, it is presumed that the student requires additional instructional

support (Kaminski, Cummings, Powell-Smith, & Good, 2008). It is important to utilize this step of the Outcomes-Driven Model so that no single piece of assessment data is used to make decisions about a student's instructional plan.

*Plan, Implement, Evaluate, and Modify Support.* Once the level of support is planned and details are developed for where, when, and with whom the instruction will be delivered, educators implement, evaluate, and modify that support as needed. During this phase, students' progress is monitored along their path toward a particular goal, with the frequency of the monitoring and the intensity of the intervention designed to match the students' need. For example, a student with severe needs may be monitored weekly or even twice weekly, and students with less severe needs may only need to be monitored once per month.

There are specific decision rules associated with progress monitoring used to evaluate the effectiveness of interventions. A general recommendation is the 3-point rule, where interventions are continuously evaluated and if a student's performance falls below the goal in more than 3 consecutive data points, the intervention is changed based on the specific pattern of student performance. This recommended decision rule is based on early work with curriculum-based measurement (CBM; Fuchs, 1988, 1989) and precision teaching (White & Haring, 1980). As when validating a student's need for support, a pattern of performance is considered before making individual student decisions. This iterative process continues until the student makes sufficient progress and is back on track to meet established goals. (See the "Interventions and Strategies" section of Figure 3 for references on specific intervention ideas across a variety of skill areas.)

*Outcome Evaluation.* Continued refinement of educational programs continues through the outcome evaluation. The premise of the Outcomes-Driven Model is that failure is not an option (Kaminski & Good, 1998). Students are monitored and intervention is evaluated until a student reaches the set goals. It is important to remember that it is not just

the monitoring but the continued responsive intervention that makes the difference in a student's success.

### **The Role of Formative Assessment**

The systematic and recursive feedback loops (i.e., teach, assess, and modify teaching as needed) of the Outcomes-Driven Model, and more globally the RTI process, require a new perspective on assessment practices where the key decision is not one of high-stakes eligibility or evaluation but one of instructional planning. Formative assessment is the process by which data are used to adapt teaching to students' needs (Kaminski & Cummings, 2007).

One type of formative assessment tool is general outcome measures (GOMs). GOMs differ from other types of formative assessments in that they are standardized, establish psychometric properties, and provide different but equivalent alternate forms for progress monitoring. These key features are necessary to consider when determining appropriate assessments within an RTI model. These features of GOMs facilitate the necessary comparisons between students, as in the case of universal screening. Also, GOMs are ideally suited to repeated measurement over time, thus providing a means to engage in progress monitoring of individual students.

CBM is one widely known type of GOM that allows educators to quickly and efficiently assess students' growth in basic skill areas (Shinn, 2002). More recently, data have converged to suggest that GOMs can be used to broadly support a wider range of educational decisions including screening in general education and linking performance on these brief measures to high-stakes tests as required for NCLB. GOMs are widely available for assessing early reading skills (Good & Kaminski, 2002) as well as infant and preschooler development (Carta et al., 2002). See Figure 3 for more information regarding formative assessment technologies.

The aforementioned assessment tools are a means by which educators can determine that (a) students have an appropriate intervention with which to

### **Figure 3. Free, Electronic Resources for the Foundations of Response to Intervention (RTI)**

#### *Universal Screening and Progress Monitoring*

##### **National Center on Student Progress Monitoring**

<http://www.studentprogress.org/>

This site provides information on the scientifically based practice of screening and monitoring students' skills. A variety of articles and descriptions of different tools are available.

#### *Core Curricular and Supplemental Programs*

##### **Oregon Reading First Center**

[http://oregonreadingfirst.uoregon.edu/curriculum\\_review.php](http://oregonreadingfirst.uoregon.edu/curriculum_review.php)

This site provides a report of comprehensive core and supplemental reading programs. Programs submitted for review were analyzed and scored using a rubric developed by the Oregon Reading First Center.

#### *Interventions and Strategies*

##### **Florida Center on Reading Research**

<http://www.fcrr.org/Interventions/index.htm>

This site provides multiple intervention ideas linked to the five big ideas of early reading. Interventions for individuals or small groups can be printed in their entirety.

#### *Intervention Central*

<http://www.interventioncentral.org/>

This site provides interventions and strategies for reading and other skills areas. The site allows educational professionals to develop individual assessment instruments.

respond and (b) that the response is sufficient to result in meaningful changes in outcomes for a student. A common feature to each GOM is that they are indicators of broader skill areas. GOMs do not assess everything about a particular domain, but they assess important things about that domain. Students' patterns of performance on these measures directly relate to performance on important developmental tasks. For instance, one of the most widely used and researched GOMs, Oral Reading Fluency, is a very powerful indicator of the global domain of overall reading skill and comprehension.

GOMs are also dynamic in that they are sensitive to small but meaningful gains in student improvement over time. Because GOMs are designed to be brief, educators can use them weekly if needed in order to determine if the intervention is working or if the interventions need to be modified. If interventions need to be changed, an educator has additional insight about what specific skills to teach based on the student's performance during these brief assessments. This aspect of GOMs re-

presents the feature of being authentic assessments, wherein the skills that are assessed match the instruction that is delivered, and that instruction is continually evaluated. Student outcomes drive the decisions in this process.

### **Application of the RTI Model**

Changing the focus of assessment and the nature of intervention plays a critical yet varied role in effective RTI implementation. In an RTI model, it is presupposed that referrals for higher levels of intervention are based on data. As a result, referrals for special education are likely to include information that is more relevant for eligibility decision making and instructional planning than in the past. Because all children are screened for early skill deficits, children are able to access curriculum in the least restrictive environment. As general education teachers begin to teach to a wider variety of students, special educators take on an expanded role in providing consultative assistance to their general education colleagues.

The Outcomes-Driven Model addresses prevention needs across the contin-

#### **Figure 4. Case Study: One District's Experience With Response to Intervention (RTI) Scale Up and Implementation**

##### *Tell us a little bit about your school.*

Our school district is located in a suburban town in the northwest part of the United States. This particular area is experiencing rapid growth with a number of transient hotels and subsidized low-income housing. Associated with the economics of the community, 45% of the students qualify for free/reduced lunch and there is a high mobility and student turnover rate. The district historically has had a large number of students receiving special education services, averaging 15% of the total population. The district has a high quality, special education staff with training in both current assessment practices and research-based instructional programs.

##### *How did you begin to scale up RTI?*

The school district began moving several years ago to an RTI model as an outgrowth of a districtwide reading project utilizing research-based reading programs. The project was initiated in response to the large number of students needing special education services to address reading deficiencies. Prior to implementing the research-based reading project, a large number of students here were referred and identified for special education who lacked exposure to effective instruction within the general education curriculum. Within this approach, special education teachers participated in the identification of students who could best be described as instructionally disabled, believing that only within the special education curriculum would they have access to programs appropriate to students' needs. We thus began to scale up RTI by bringing special education resources, including special education teachers, to bear within our overall instructional environment.

##### *What were the goals of the new program?*

The goal of the program was to involve both general and special education teachers who work on school reading teams to select and implement high quality research-based assessments and reading programs. General and special education teachers worked as a team to select primary, secondary, and tertiary reading programs, and instruction was delivered on a continuum rather than categorically. By utilizing special education teachers to help differentiate the core curriculum, we were able to serve our students more effectively and efficiently. The district also adopted the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and Test of Oral Reading Fluency (TORF) as formative assessment tools to identify early reading discrepancies through universal screening and to monitor student progress.

##### *What are some of the key outcomes of this project?*

Through the early identification of struggling readers within the general education population, it was possible to deliver targeted instruction within general education, Title I services, or special education. Reading teams, composed of special and general education teachers, were reluctant to refer students to special education without exploring every available research-based intervention and closely monitoring the student's progress. This process of evaluating how students responded to interventions led the teams to no longer focus on the student's perceived discrepancy but to make sure that the student had every opportunity to learn. The reading project had many outcomes both intended and unintended.

##### *How did these changes support an RTI Framework?*

The project resulted in a restructuring of the instructional program and the elimination of categorical barriers between special and general education. The stated goal of the project was to provide quality, research-based instruction and reduce the incidence for reading disabilities, which was achieved in a dramatic fashion. With the implementation of effective practices in reading, the elementary school referral rates fell to single-digit percentages districtwide! The unintended result was the district evolving to an RTI model as a result of practice rather than policy shift—most significantly the instructional melding between general and special education. Students in our district now have the benefit of a wide array of instructional opportunities among general education, Title I services, and special education without having to cross categorical barriers.



uum. The intention of the Outcomes-Driven Model is that a student's needs are addressed before referrals to special education for learning disabilities are needed. This requires a component of systems-level evaluation which increases accountability and ultimately helps plan instructional support for all students. Research continues to demonstrate that progress monitoring (e.g., formative assessment) substantially increases the effectiveness of intervention. Studies further document that the effectiveness of progress monitoring increases when graphing techniques and decision rules are used (Fuchs & Fuchs, 1986; Kavale, 2005). The practice of progress monitoring may take place in both general education and special education; its frequency and intensity is what will change depending upon student need.

#### **The Outcomes-Driven Model addresses prevention needs across the continuum.**

Important changes in special education result from the general education application of collecting formative assessment data within an Outcomes-Driven Model. By linking assessment with interventions, educators document what is special about special education. The decisions accompanying each of these steps in the Outcomes-Driven Model are congruent with the argument made by Ysseldyke and Marston (1998) that our eligibility decisions ought to be based on instructional efforts to help all students achieve better outcomes. Special education is therefore not a place; rather, it is a set of interventions designed to ensure individual student success.

When problem solving across the continuum is generalized, it is found that the purpose of RTI is not a cheaper, faster way of identifying students for special education. Rather, it is a way of ensuring that students are provided with what they need to succeed in education. Special educators play a critical

role in evaluating the effectiveness of a variety of interventions within their classrooms and schools.

### A Case Study

To illustrate how the role of the special educator might change in an RTI model, review the case study in Figure 4 describing one school district's path toward RTI implementation. This description, provided by an administrator, details how RTI was initiated nearly 5 years prior to the time of this publication. In this example, the district was able to maximize student learning and reduce the rates of referral to special education.

### Possible New Roles for Special Educators

As RTI processes are considered and tested across increasing numbers of school systems, the role of teachers in this process needs to be a significant consideration, especially for special education teachers. The success of core instruction with all students in general education becomes a critical determination. It is most likely the success or failure of this differentiated core instruction that leads to potential referral for additional services, which in many cases includes special education. How special education teachers position themselves to support and supplement core instruction or align themselves to provide intensive intervention is critical to the RTI process in general, and specifically to the special education teachers' value in the system. (See Figure 5 for a description of key roles of the special education teacher in an RTI model.) The bottom line is that no matter how student problems are identified, unless educators provide meaningful and effective instruction, student progress will not change.

Special education teachers should be able to help support RTI efforts across varied problem areas and various programming options. To be assistive to the RTI model, special education teachers need to support efforts to implement a problem-solving framework premised on four basic questions:

- What is the student's problem and why is it happening?

**Figure 5. List of Key Activities for Special Educators in a Response to Intervention (RTI) Model Linked to the Outcomes-Driven Model**

Key Activity	Step in the Outcomes-Driven Model
1. Evaluate a target student's concern in comparison to an accepted standard of success. Assist and/or train the school's universal screening team to administer formative assessments (e.g., Dynamic Indicators of Basic Early Literacy Skills and other curriculum-based measurements) with fidelity.	Identify Need for Support
2. Assist in the consideration of scientifically based instructional strategies. Use knowledge of student skill and error patterns for more advanced educational diagnosis. <sup>a</sup>	Plan & Implement Support
3. Provide modeling, support, and feedback to other professionals regarding intervention implementation. Use understanding of reading student graphs to assist others in interpreting a student's rate of progress.	Evaluate & Modify Support
4. Participate in ongoing formative assessment and summative evaluation of intervention effectiveness. Consult with general education teachers and other professionals to enhance teaching activities.	Outcomes Evaluation

<sup>a</sup>We use the term *educational diagnosis* here in a manner similar to Howell & Nolet (2000), by stating that it ought to be a teaching decision rather than an entitlement decision. An educational diagnosis according to this paradigm thus includes two key elements: effectively identifying what to teach and how to teach it.

- What is the best instructional plan for the student given the analysis of the concern?
- How can the plan be implemented as it was conceived and data collected for analysis of performance?
- Are the desired results being achieved as expected or do changes need to be made?

A further analysis of these foundational concepts helps clarify a special education teacher's increasing role in creating a successful learning experience for all children.

An important role of the special education teacher is helping others understand how to evaluate a target student's concern in comparison to an accepted standard of success. This gap analysis is fundamental in an RTI model and sets the stage for an analysis of the problem that is subsequently defined. Looking for probable causes of the learning problems defined in this way is a critical step in the process. It allows special

education teachers to help other educators look more deeply at why a student may have problems in specific areas and potentially successful interventions. Helping define, validate, and analyze problems at an individual and group level is a critical skill for special education teachers in a successful RTI model.

Special education teachers are often seen as a wealth of information on instructional strategies that are effective with students with disabilities. Therefore, once a student's problems are defined and accurately analyzed, special educators help other educators with consideration of scientifically based and researched instructional strategies to be used. By linking reliable instructional strategies which match the analyzed need of a student, the likelihood of intervention success is greatly increased. Special education teachers help establish meaningful goals for student attainment and meaningful methods of monitoring progress towards those goals.

After a well conceived plan is developed, the special education teacher provides modeling, support, and feedback on the implementation of the intervention. Some special education teachers may even find themselves collaboratively working with general education teachers with intervention groups or teaching intervention groups of like-need students. The knowledge of what and how to teach hard-to-reach students is an important role of special education teachers.

**An important role of the special education teacher is helping others understand how to evaluate a target student's concern in comparison to an accepted standard of success.**

Finally, special education teachers become involved in ongoing, formative assessments as well as summative evaluation. By virtue of their work with individualized education programs, special educators help teachers less familiar with data collection, data analysis, and decision-making procedures. Assisting less familiar teachers with these tasks uses special education teachers' expertise on instructional and curricular needs for students who are not making adequate progress or need additional instructional considerations to enhance the level of progress made. The idea of formatively monitoring the effects of instruction and analyzing student performance results to make instructional changes is a strength of many special education teachers.

Too often, concerns are expressed that the need for special education teachers will be reduced through effective intervention practices. Looking holistically at the needs within a systemic response to intervention approach, that concern does not seem well grounded given the knowledge, skills, and resources that special education teachers offer the overall system.

**Conclusion**

The RTI process is about more than special education eligibility; it is ultimately a focus on school improvement to build effective systems of service delivery. The special education teacher is in a unique position to contribute to the way in which such a service delivery model plays out within a school. Throughout the process of collaboration, the special education teacher is viewed as a key consultant assisting with planning, implementation, and evaluation of interventions across the continuum of education. Special education teachers also experience increased involvement with general education and Title I staff by way of early screening activities, collaborative instructional processes for groups of students with similar skills, and interpreting RTI data within the context of the problem-solving process. The special educator in an RTI model plays a key role in enhancing instructional opportunity for all students.

The skills that special education teachers bring to the table may ultimately result in fewer students qualifying for specialized services. However, rather than seeing this outcome as working oneself out of a job, it should be viewed as an opportunity to focus more intensely on the students with the most severe needs and help provide more effective instruction for all students.

**References**

Carta, J. J., Greenwood, C. R., Walker, D., Kaminski, R., Good, R., McConnell, S., & McEvoy, M. (2002). Individual growth and development indicators (IGDIs): Assessment that guides intervention for young children. In M. Ostrosky & E. Horn (Eds.). *Assessment: Gathering meaningful information*. The Young Exceptional Children Monograph Series #4. Longmont, CO: Sopris West. Retrieved January 8, 2008, from <http://www.igdi.ku.edu/documents/index.htm>

Deno, S. L. (1989). Curriculum-based measurement and special education services: A fundamental and direct relationship. In M. R. Shinn (Ed.), *Curriculum-based measurement: Assessing special children* (pp. 1-17). New York: Guilford.

Dynamic Measurement Group. (2007). "Steps in the outcomes-driven model." Eugene, OR: Author.

Fuchs, L. S. (1988). Effects of computer-managed instruction on teachers' implementation of systematic monitoring programs, student achievement, and student awareness of learning. *Journal of Educational Research, 81*, 294-304.

Fuchs, L. S. (1989). Evaluating solutions: Monitoring progress and revising intervention plans. In M. Shinn (Ed.), *Curriculum-based measurement: Assessing special children* (pp. 153-181). New York: Guilford.

Fuchs, L. S., & Fuchs, D. (1986). Effects of systematic formative evaluation: A meta-analysis. *Exceptional Children, 53*, 199-208.

Good, R. H., & Kaminski, R. A. (Eds.). (2002). *Dynamic indicators of basic early literacy skills* (6th ed.). Eugene, OR: Institute for the Development of Educational Achievement. Retrieved January 8, 2008, from <http://dibels.uoregon.edu/>

Heller, K. A., Holtzman, W., & Messick, S. (1982). Placement in special education: Historical developments and current procedures. In K. A. Heller, W. H. Holtzman, & S. Messick (Eds.), *Placing children in special education: A strategy for equity* (pp. 23-44). Washington, DC: National Academy Press.

Howell, K. W. & Nolet, V. (2000). *Curriculum-based evaluation: teaching and decision making* (3rd ed.). Canada: Wadsworth.

Individuals With Disabilities Act of 1997. Reauthorization of P.L. 105-17.

Individuals With Disabilities Education Improvement Act of 2004, P. L. 108-466.

Kaminski, R. A., & Cummings, K. D. (2007, Winter). Assessment for learning: Using general outcomes measures. *Threshold, 26*-28.

Kaminski, R. A., Cummings, K. D., Powell-Smith, K. A., & Good, R. H. (2008). Best practices in using dynamic indicators of basic early literacy skills (DIBELS®) for formative assessment and evaluation. In A. Thomas & J. Grimes (Eds.). *Best practices in school psychology V* (pp. 1181-1204). Bethesda, MD: National Association of School Psychologists.

Kaminski, R. A., & Good, R. H. (1998). Assessing early literacy skills in a problem-solving model: Dynamic indicators of basic early literacy skills. In M. R. Shinn (Ed.), *Advanced applications of CBM* (pp. 113-142). New York: Guilford.

Kavale, K. (2005). Effective intervention for students with specific learning disability: The nature of special education. *Learning Disabilities, 13*(4), 127-138.

National Association of State Directors of Special Education. (2005). *Response to Intervention: Policy considerations and implementation*. Alexandria, VA: Author.

National Research Council. (2002). *Executive summary. Disproportionate representation of minority students in special education*. Washington, DC: Author.

No Child Left Behind Act of 2001, P. L. 107-110.

Pasternack, R. H. (2002, March). *The demise of IQ testing for children with learning disabilities*. Paper presented at the meeting of the National Association of School Psychologists 2002 Annual Convention, Chicago, IL.

President's Council on Special Education Excellence. (2002). *A NEW ERA: Revitalizing special education for children and their families*. Washington, DC: U.S. Department of Education.

Shinn, M. R. (1995). Best practices in curriculum-based measurement and its use in a problem-solving model. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology III* (pp. 547-567). Washington, DC: National Association of School Psychologists.

Shinn, M. R. (2002). Best Practices in using curriculum based measurement in a problem-solving model. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology IV* (pp. 671-697). Bethesda, MD: National Association of School Psychologists. Retrieved January 8, 2008, from <http://www.nasponline.org/trainers/BPIV/44-Shinn.pdf>

Simmons, D. C., Kame'enui, E. J., Good, R. H., Harn, B. A., Cole, C., & Braun, D. (2002). Building, implementing, and sus-

taining a beginning reading improvement model: Lessons learned school by school. In M. R. Shinn, H. M. Walker, & G. Stoner (Eds.), *Interventions for academic and behavior problems II: Preventive and remedial approaches* (pp. 537-570). Bethesda, MD: National Association of School Psychologists.

Tilly, W. D. (2008). The evolution of school psychology to science-based practice. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 17-36). Bethesda, MD: National Association of School Psychologists.

White, O. R., & Haring, N. G. (1980). *Exceptional teaching* (2nd ed.). Columbus, OH: Merrill.

Ysseldyke, J., & Marston, D. (1998). Origins of categorical special education services in schools and a rationale for changing them. In D. J. Reschly, W. D. Tilly III, & J. P. Grimes (Eds.), *Special education in transition: Functional assessment and noncategorical programming* (pp. 1-18). Longmont, CO: Sopris West.

**Kelli D. Cummings** (CEC OR Federation), Senior Research Scientist, Dynamic Measurement Group, Eugene, Oregon. **Trent Atkins** (CEC MT Federation), Associate Professor of Special Education, The University of Mon-

tana, Missoula. **Randy Allison** (CEC IA Federation), Director of Special Education, Heartland Area Education Agency 11, Johnston, Iowa. **Carl Cole** (CEC VI Federation), Research Associate, RMC Research Corporation, St. Thomas, U.S. Virgin Islands.

Address correspondence to Kelli D. Cummings, Dynamic Measurement Group, 132 E. Broadway, Suite 636, Eugene, OR 97401 (e-mail: [kcummings@dibels.org](mailto:kcummings@dibels.org)).

This manuscript was supported by the Schools and Communities Coming Together Project at the Division of Educational Research and Service, The University of Montana and Federal Grants 2003CKWX0274 and 2004CKWX0377 from the Community Oriented Policing Services Office, U.S. Department of Justice. However, no official university or federal endorsement should be inferred.

Portions of this work were completed while the first author was a member of the faculty at the University of Montana.

TEACHING Exceptional Children, Vol. 40, No. 4, pp. 24-31.

Copyright 2008 CEC.

## Ad Index

American Foundation for the Blind, 39

American Printing House for the Blind, 22

AutismPro.com, 31

CEC, 1, 49, 64, 65, 71, 72, 75, cover 3

Crisis Prevention Institute (CPI), cover 4

Curriculum Associates, cover 2

Jack Kent Cooke Foundation, 13

Making the Grade, 71

Nasco, 13

Pearson, 55

Penn State, 23