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School Psychologists as Instructional Consultants in a Response-to-Intervention Model

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The 2004 authorization of the Individuals with Disabilities Education Improvement Act affords an opportunity to shift the classification of Learning Disabilities (LD) from a "refer-test-place" to a Response-to-Intervention (RtI) service delivery model. As a result, there are implications for the professional activities of school psychologists. School psychologists, who historically devoted much of their time to testing struggling learners for learning disabilities, will need to engage in a different type of practice, specifically providing instructional consultation in a tiered assessment and intervention model. This article describes instructional consultation skills and knowledge school psychologists must possess to promote the learning outcomes of students with achievement deficits, including students with disabilities. Survey data collected from 249 California school psychologist practitioners highlight the need to modify school psychology pre-service training and on-going professional development to enable school psychologists to become effective instructional consultants.

KEYWORDS: Response to Intervention; RtI; Instructional Consultation; School Psychology Service Delivery.

The Response-to-Intervention (RtI) zeitgeist emerged with the 2004 re-authorization of the Individuals with Disabilities Education Improvement Act, which provided states the option of determining whether a "child responds to scientific, research-based intervention" for identifying underachieving students with specific learning disabilities (SLD; IDEIA, 2004). SLD eligibility under RtI is determined when a child's academic performance fails to improve even when increasingly intensive, empirically supported interventions have been implemented (Hagans-Murillo, 2005; see Jimerson, Burns, & VanDerHeyden, 2007 for a review of contemporary scholarship related to RtI). The reauthorization specifically requires a data-based decision-making process for identifying and serving students who are referred for learning difficulties, including students who are English Language Learners (ELLs; IDEIA, 2004). One of the greatest challenges currently facing the field of special education and related services is training personnel to effectively meet these new requirements for identifying children with LD using a RtI model (Canter, 2006; Graden, 2004; Kratochwill, Volpiansky, Clements, & Ball, 2007; NJCLD, 2005).

Most RtI service delivery models are based on three tiers of intervention with a student progressing from one tier to the next if quality interventions at each level fail to stem the student's persistent or worsening academic skill deficits (Fuchs et al., 2008). RtI is grounded in the provision of instructional consultation at each level of service, and represents a major paradigm shift from the traditional psychometric activities associated with a "refer-test-place" model (see Table 1). Instructional consultation and problem-solving models upon which RtI are based have been researched (e.g., Bergan & Kratochwill, 1990; Jimerson, Burns,

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& VanDerHeyden, 2007; Rosenfield, 2002) and used in practice for many years in states such as Iowa (Ikeda, Rahn-Blakeslee, Niebling, Gustafson, Allison, & Stumme, 2007), Minnesota (Marston, Lau, & Muyskens, 2007), and Illinois (Peterson, Passe, Shinn, & Swerdlik, 2007). Despite being practiced and researched, RtI remains relatively new to many school psychologists; as such their knowledge and ability to support empirically based instruction and monitor a child's response to that instruction may be limited. However, school psychologists' knowledge of assessment and access to multiple instructional contexts makes them ideal candidates to assume the role of instructional consultant. In short, to move from a refer-test-place model to a RtI model of service delivery, school psychologists must move from providing primarily psychometric services to delivering consultation services within a tiered instructional model.

TABLE 1

Comparison between Two Models of School Psychological Services to Address Learning Deficits

Learning Deficits

Refer-Test-Place	Response-to-Intervention Model
Psychometric skills	Instructional consultation skills
Related services focus on testing	Related services focus on instructional consultation
Knowledge of evidence-based academic interventions is helpful, but not essential	Knowledge of evidence-based academic interventions is essential.
Administer published, norm-referenced tests of cognitive, psychological processing, and achievement (e.g., WISC-IV, WJ-III)	Administer instructionally-related assessments (e.g., FAAB, CBM, EAAP)
Nomothetic (inter-individual) assessment - battery of tests administered in a few testing sessions	Idiographic (intra-individual) assessment procedures - repeated measures to assess progress over time
Tests are commercial, standardized, and norm-referenced and require substantial inference about applicability to achievement	Tests are direct, require little inference; and based on local normative expectations, grade-level standards and/or intra-individual comparisons
Refer-Test-Place	Response-to-Intervention Model
Focus on determining special education eligibility	Focus on identifying effective interventions
Specific learning disabilities defined by an IQ/achievement discrepancy	SLD defined by a dual discrepancy definition (i.e., below average performance and low rate of response to intervention)
Psychoeducational reports focus on describing and interpreting scores to match special education eligibility criteria	Psychoeducational reports focus on summarizing assessment results, linking results to interventions, and monitoring intervention outcomes

The purposes of this article are to outline the training and professional development needs of school psychologists for successful implementation of a RtI model, with particular emphases on the theoretical and practical components of early identification and intervention with students with academic skill deficits (i.e., Tiers 1 and 2). We begin with the results of a survey of California school psychologists that highlights the need for practitioner training in RtI methods.

California Practitioner Survey Results

The description of school psychologists engaged in instructional consultation within an RtI model contrasts sharply with contemporary practices. Currently, psychometric models dominate school psychological practice, with a focus on determining eligibility rather than identifying and monitoring instructional interventions (President's Commission on Excellence in Special Education, 2002; Reschly, Hosp & Schmied, 2003; Reschly & Ysseldyke, 2002). A 2005 on-line survey by Busse, Leung, Powers and Siembieda, completed by 249 California school psychologists, highlighted the paucity of psychologists engaged in activities related to instructional consultation (i.e., utilizing curriculum-based assessments, evaluating intervention effectiveness with progress monitoring data). All members of the California Association of School Psychologists (CASP) were invited to complete the survey via email. The response rate was quite low; less than 10% of the approximately 3000 CASP members responded, and thus, the results should be interpreted accordingly.

The survey results presented in Table 2 indicate most respondents remained heavily engaged in traditional psychometric testing and few engaged in practices related to instructional consultation. For example, 79% of respondents administered a cognitive test at least once a week, whereas 2% administered a curriculum-based (CBM) measure as frequently, which can be used for determining students' response to instruction. The majority of respondents indicated that they "never" engaged in assessment activities relevant to instructional consultation. Lack of knowledge appears to be a major reason respondents did not engage in instructionally related assessments, as 16% indicated they do not know how to use CBM data, 24% expressed a lack of knowledge on graphing data, and 35% noted they did not know how to apply decision rules to analyze trends in progress monitoring data. In contrast, out of the 249 respondents, not a single school psychologist indicated that they knew next to nothing about cognitive testing. The survey results indicate that most respondents engaged in consultation with teachers, and 41% did so on a regular basis. The high percentage of psychologists who indicated that they did not know how to engage in instructionally relevant assessment activities is startling. With little to no progress monitoring data collected and minimal knowledge and experience in providing academic interventions (only 7% frequently provided academic interventions and 1 in 10 respondents reported knowing very little about academic interventions), the effectiveness of respondents' consultation is questionable.

School psychologists' under-developed instructional consultation skills is not solely a California phenomenon. School psychologists across the nation have reported valuing instructional consultation more than they actually provide this related service; and those who have assisted in academic intervention development reported they rely on experiential rather than empirical knowledge to inform intervention development (Porter, Batsche, Castillo, & Witte, 2006). For example, like California school psychologists, most practitioners responding to a similar national survey indicated they never engaged in progress monitoring to determine the effectiveness of interventions they helped to develop (Porter et al., 2006).

TABLE 2

CASP Practitioner Survey Results

	Frequently (1x week)	Never	I have not learned much about this
Psychometric Model or Refer-Test-Place Practices			
Cognitive Testing	79% (197)	1.2% (3)	0
Administering tests of psychological processing	70% (175)	2% (5)	3 (1.2%)
Response-to-Intervention Model or Instructional Consultation Practices			
Administer a curriculum-based measure (CBM)	2% (5)	52% (130)	15% (38)
Graph progress monitoring data	2% (6)	53% (132)	24% (59)
Use a decision rule (e.g., trend analysis) to evaluate progress monitoring data	4% (10)	63% (157)	35% (86)
Consult with teachers on implementing an intervention	.8% (2)	41% (102)	.4% (1)
Implement academic interventions	7% (17)	48% (120)	11% (28)

School psychologists must be trained to engage in these assessment and intervention activities to meet the full intent of RtI provisions of IDEIA 2004. Knoteck (2007) states that the basic skills needed to successfully operate within a RtI model are problem-solving skills, ability to successfully exchange ideas, data collection, and analysis of curriculum and instruction. Because most school psychologists do not regularly engage in even the most basic assessment and instructional programming activities related to RtI (i.e., gathering CBM data, graphing data, making data-based decisions), there is a great need to train school psychologists who are knowledgeable about basic and advanced assessment (i.e., experimental analysis of academic behavior, curriculum-based evaluation, dual-discrepancy criterion) and intervention methodologies.

Theoretical Assumptions of RtI

Generally, there are two assumptions inherent in a RtI model that drive the selection and implementation of assessment and intervention procedures: (a) interventions represent testable hypotheses that must be evaluated for each student, and (b) implemented interventions focus on alterable contextual variables that empirically relate to improved student outcomes (Hagans-Murillo, 2005). Conceptually, RtI methodology is based on the applied behavioral analysis (ABA) and single-subject research literature that promote the use of direct ongoing methods of assessment that measure socially important behaviors to make intra-individual, idiographic comparisons to evaluate the effectiveness of interventions (Baer, Wolf, & Risley, 1968; Gresham,

2007). Additionally, RtI's grounding in an ecological systems theory is based on the assertion that child outcomes are influenced by a reciprocal interaction between student characteristics and environmental conditions (Powers, Hagans, & Miller, 2007). As a result, the focus of the problem does not reside solely within the child and instead moves to an analysis of specific environmental conditions that support or thwart the development of academic competence (DiPerna & Elliott, 2002). Conversely, the identification and implementation of special education services traditionally operates from a deficit, child-centered model, with an assessment methodology that embraces and largely expects evaluations that measure within-person, unobservable, and unalterable characteristics that may minimally relate to the development of targeted interventions and improved academic achievement (Ysseldyke, 2002).

Although within-child and home variables significantly impact student learning, instructional programs must be selected based on evidence-based effectiveness with the target student population; systematically sequenced with new information introduced at a realistic rate; and adequate practice provided to enable students to develop accuracy and fluency in applying what they have learned (Carnine, Silbert, Kame'enui, Targer, & Junghohann, 2006). However, a serious misconception of teaching is that teachers simply deliver knowledge or information as prescribed in a curriculum lesson. For struggling learners, dispensing knowledge without significant adaptations only serves to promote further failure (Kame'enui & Simmons, 1990). Not all comprehensive instructional programs will meet the needs of all students; some will require modification such as explicit skill demonstrations and guided practice. Highly qualified school psychologists can provide an important related service by sharing knowledge of empirically based strategies with teachers who are delivering instruction to struggling students.

Scientific Support for RtI

Although convergent research over the past decade specifies essential ingredients for effective instruction (e.g., National Reading Panel, National Literacy Panel, President's Commission on Excellence in Special Education, National Council on Teacher Quality), an extensive gap exists between research and practice (National Council on Teacher Quality, 2006). There is a need to assist teachers in the design and delivery of instruction to provide quality instructional programs to diverse learners, especially students who enter school with varied formal and informal learning experiences. Additionally, instructional assistance is needed to help special education teachers provide quality and adequate instructional programs to increase special education exit rates of students already identified with a disability (Powers, Hagans, & Miller, 2007).

Instructional consultation is a collaborative problem-solving process focusing on general or special education teachers' concerns regarding the academic progress of individual or groups of students, or the failure of instructional programs to improve student outcomes (Rosenfield, 2002). The primary goal of instructional consultation is to create and maintain student success within the general education environment by supporting classroom teachers' application of evidence-based instruction and assessment to support struggling learners (Gravois & Rosenfield, 2006). To meet this goal, consultants must possess knowledge in the design and delivery of instruction, collaborative problem-solving skills, and the ability to analyze student data to inform instructional decisions.

The promise of RtI is much more than a new set of criteria for qualifying students for special education services. RtI is a model for providing primary, secondary and tertiary academic interventions to students with reading, writing, and mathematics deficits. Torgeson (2007) described RtI as:

> "…a complete model for organizing and delivering early reading instruction in elementary schools. In fact, it could be called the "response to intervention *instructional model*," as distinct from the "response to intervention *diagnostic approach*" which is referred to in the (IDEA) legislation" (p. 1, italic emphasis added).

Torgeson's intervention research found that applying a RtI model in the form of ensuring high quality instruction to all students, modifying academic interventions based on progress monitoring data, and providing "increasingly powerful 'tiers' of intervention based on student need" decreased the numbers of

students exhibiting severe underachievement. For example, in a study with 318 elementary schools in Florida, Torgeson reported that the proportion of Kindergarten students identified as having a learning disability was reduced by 81% within 3 years of applying the model. Similarly, the proportion of third grade students with significant reading difficulties was reduced from 26.7% during the first year of RtI implementation to 19.9% at the end of the third year. These results are consistent with previous research findings (Burns, Appleton, & Stehouwer, 2005; Jenkins, Peyton, Sanders, & Vadasy, 2004; Kovaleski, Gickling, Morrow, & Swank, 1999; VanDerHeyden, Witt, & Barnett, 2005) on the efficacy of RtI service delivery models for reducing grade retentions, referrals for special education, and increasing reading, spelling, and math skills.

Furthermore, research on RtI as a diagnostic service delivery model on the overrepresentation of minorities in special education is encouraging. Marston, Muyskens, Lau, and Canter (2003) found that replacing the "refer-test-place" service delivery model with RtI reduced disproportional representation of culturally and linguistically diverse students in special education in the Minneapolis Public School District. Similarly, Gravois and Rosenfield (2006) found a significant decrease in the risk of minority students being referred or found eligible for special education among schools that implemented instructional consultation teams.

Successful implementation of RtI is predicated on the ability of educators to identify evidence-based instructional practices for implementation at multiple instructional tiers, and the use of progress monitoring systems to gauge student progress and need (Glover & DiPerna, 2007). School psychologists are uniquely positioned to assist in the implementation of a tiered instructional model through the provision of instructional consultation services at each tier of the RtI instructional hierarchy, thereby fulfilling IDEIA mandates while improving the academic outcomes of struggling learners.

INSTRUCTIONAL CONSULTATION IN A THREE-TIERED RTI MODEL

There exists variation in how the three tiers of RtI are conceptualized, and no model has been shown to be superior to another (Burns, Deno, & Jimerson, 2007). Regardless of the model, the basic tenets of RtI are implementing increasingly intense interventions suitably matched to students' needs based on a failure to respond to less intense intervention. For example, in some models the provision of special education services is considered the third tier, whereas in others' tier 3 is another opportunity to remediate a student's academic deficit before determining that the child likely has a disability and requires special education services to make adequate progress in school. Therefore, depending on one's conceptualization of RtI, some assessment and consultation activities may fall within a different tier upon implementation. Potential school psychologist activities and contributions to the implementation of RtI in the schools within a three tiered instructional consultation approach are numerous (see Table 3). However, for the purposes of this article, we focus on describing Tier 1 and 2 activities and competencies because these levels typically are most conducive to instructional consultation as a method for ameliorating the need for special education placement.

TABLE 3

Potential School Psychologists Consultation Activities
Tier 1 Instructional Consultation Activities 1. Observe and consult with general education teachers to increase their instructional effectiveness; 2. Analyze and visually display school-wide data to identify students in need of differentiated instruction; 3. Collaboratively develop universal screening and standard protocol instructional programs; 4. Collect and interpret progress monitoring data, including applying decision rules to identify students in need of Tier 2 interventions.
Tier 2 Instructional Consultation Activities 1. Facilitate problem-solving Student Study Teams 2. Design, support and evaluate intense, systematic and targeted interventions 3. Collect and interpret progress monitoring data, including applying a dual discrepancy decision rule to identify students in need of Tier 3 interventions.

Tier 1 Instructional Consultation Services

Tier 1 assessment and intervention typically take place in the general education program and involve collaboration among many individuals, including the school psychologist. Ideally, Tier 1 includes effective delivery of a rigorous and empirically based curriculum, universal screening at least three times a year for early identification of students in need of intervention, and a standard protocol instructional intervention for students who fail to meet targeted universal screening benchmarks (Fuchs & Fuchs, 2006). Students may fail to achieve identified academic standards if these instructional components are not effectively in place or poorly implemented. School psychologists are in an ideal position to provide consultation to teachers regarding instructional delivery, classroom management, collecting and interpreting student data, and making data-based decisions regarding student educational needs and progress due to the training school psychologists receive in collaborative consultation, assessment linked to intervention, and understanding of learning and behavior.

Instructional Delivery. The research literature consistently demonstrates the powerful influence of instructional quality on achievement (Brophy & Good, 1986; Rosenshine & Stevens, 1986; Vaughn, Gersten, & Chard, 2000). Instructional quality, in turn, is affected by variations in teacher preparation and experience. Even teachers who have completed a credential program may not be prepared to provide effective instruction. For example, the National Council on Teacher Quality (NCTQ, 2006) found that many teacher preparation programs do not prepare teachers to provide reading instruction based on empirically validated methods. In this study, the NCTQ randomly selected 72 elementary education preparation programs from across the nation and reviewed over 200 syllabi from these programs. They found only 11 of the 72 schools included at least one syllabus that referenced the five components of effective reading instruction (i.e., phonological awareness, alphabetic principle, fluency, comprehension, and vocabulary), as cited by the National Reading

Panel (2000). Although there has been substantial convergent research over the past decade to specify the essential ingredients for effective instruction, particularly reading instruction, (e.g., National Reading Panel, National Literacy Panel, President's Commission on Excellence in Special Education), the NCTQ found few elementary education courses adhered to current scientific evidence. Furthermore, an emphasis on providing teacher preparation courses that are "fun" at the expense of rigor was found to undermine teachers' preparation (NCTQ, 2006). School psychologists can assist teachers in the delivery of effective instruction by directly observing and providing consultation to improve the classroom environment and instruction, and subsequent student learning.

Key indices of quality instruction (e.g., clear learning objectives, adequate and varied practice, immediate and specific feedback) may be assessed through direct observation of instruction and/or the use of published ecological assessments. During classroom observations, various time-sampling and frequency observation procedures may be used to analyze the instructional environment for factors known to impact learning, such as sufficient opportunities for students to respond to instruction, pacing of instruction, pre-teaching potentially difficult tasks, and maintaining students' attention during instruction (Kame'enui & Simmons, 1990; Salvia & Ysseldyke, 2007). The Functional Analysis of Academic Behavior (FAAB; Ysseldyke & Christenson, 2002), a published, semi-structured observation and interview tool, may be used to gather information on the interaction between a student and his or her learning environment, such as realistic but high student expectations, use of effective motivational strategies, and reasonable curriculum modification to accommodate specific instructional needs. Additionally, the degree to which a student's home environment supports learning is assessed, such as parent participation in learning at home or school, daily routines to facilitate completion of assignments, and perceptions of the value of education. Using data derived from both structured and unstructured observations, school psychologists and teachers can collaboratively identify ways to improve the content, delivery, and/or management of instruction to increase student achievement.

Measuring student engagement during instruction is another important consideration when attempting to identify learners' academic difficulties because of the strong positive relationship between the amount of time a student is actively engaged in learning activities and his or her achievement (Greenwood, 1991; Shapiro, 2004). Student engagement, or academic learning time, is the proportion of time a student is actively and successfully engaged in a learning task, such as writing, reading aloud or silently, and answering or asking questions. Convergent research evidence shows that students who are actively engaged during instruction experience more opportunities to respond to instruction, resulting in higher levels of achievement (DiPerna, Volpe, & Elliott, 2002). Factors such as instructional design and classroom management play a major role in students' rates of academic engagement. School psychologists have the opportunity to assist teachers in identifying and modifying variables in the classroom environment to maximize student learning (Gettinger & Seibert, 2002). A structured observation tool, such as the Behavioral Observation of Students in Schools (BOSS; Shapiro, 2004), may be used to measure students' engagement during instruction by observing the percent of time a student is actively or passively engaged, and off-task during instruction compared to a peer. Operational definitions of the above behaviors must be developed by the observer prior to observation. Response accuracy also should be assessed by examining student work (e.g., permanent products) to determine the instructional match and success of the student in the expected material.

Various interval or time sampling observational techniques are useful for recording continuous and high frequency behaviors (Alberto & Troutman, 2003) and are useful for measuring academic engagement. However, an operational definition of "academic engagement" must be developed before employing a time sampling observation to ensure that the behavior is measured consistently. A list of specific behaviors considered representative of "academic engagement" may be developed in consultation with the teacher. Behaviors considered the opposite or absence of the behavior of interest (i.e., academic engagement) also are useful in operationally defining behaviors (Lewis & Sugai, 1999). Subsequently, a specific time period during which the target behavior is likely to occur is determined (e.g., teacher-directed language arts instruction) and divided into equal intervals typically no longer than 30 seconds. Information regarding the occurrence, duration, and distribution of academic engaged time of a student or group of students may be inferred from the data (Alberto & Troutman, 2003).

Universal screening. Most students will make sufficient progress when provided high quality instruction, however, between 3% to 7% fail to respond adequately (Mathes, Denton, Fletcher, Anthony, Francis, & Schatschneider, 2005). The teacher of a class with a large number of underachieving students may require substantial consultation and professional development. To provide timely assistance, academic achievement data on every student in a school must be collected and compared to identify students who are failing to profit from general education instruction and curriculum. The results of large-scale assessments, such as the California Standards Test (grades 2 and up) and California Achievement Test (grade 3 and up), may be useful for making curricular changes when the data indicate specific skills are not sufficiently mastered in a grade level. However, these data are not collected frequently enough to provide early identification of academic difficulty for individual students. Test item difficulty also changes with each passing grade level, rendering it difficult to determine student progress. Universal screening of all students in the major academic areas (reading, mathematics, written expression) three times per year would enable school personnel to provide a timely response to the first signs of academic difficulty. Fuchs and Fuchs (1999) suggested that universal screening measures meet the following criteria: (a) sufficient evidence of reliability and validity; (b) capacity to model growth (i.e., multiple alternate forms that allow comparison across administration; sufficient range of skills are measured to avoid floor and ceiling effects for students with poorly or highly developed skills); (c) identified benchmarks for expected growth used to set a selection criterion; (d) treatment sensitivity (i.e., small gains in skill acquisition are detected, and gains can be compared to average growth rates to determine whether sufficient progress is being made); (e) capacity to inform teaching; (f) independence from a specific instructional strategy or curriculum (i.e., a universal screening should rely on tasks that are functionally equivalent to the material that has been directly taught and practiced, but the screening tasks themselves should be novel); and (g) feasible (i.e., easy to administer; takes a short amount of time to administer, score, and interpret). Mastery measures, such as Read Naturally assessment tools, reading inventories, and classroom or text-book tests of learning modules are readily available and therefore, very feasible. However, these instruments lack multiple equivalent forms and thus, impede monitoring of learning across time, and often are not independent from instruction. Published, norm-referenced tests, such as the *Woodcock-Johnson III Tests of Achievement*, are more independent from instruction, however, they lack treatment sensitivity and often are costly and time consuming to administer and score. Curriculum-Based Measures (CBM), such as Initial Sound Fluency (ISF) or Phoneme Segmentation Fluency (PSF) for measuring phonological awareness skills, Oral Reading Fluency (ORF) for measuring reading in connected text, Digits Correct Fluency (DCF) for measuring mathematics, and Words Written Fluently (WWF) or Correct Word Sequence (CWS) for measuring spelling and writing, meet most or all of these conditions (Shapiro, 2004). CBM resources may be found on a number of websites, including the sites for Dynamic Indicators of Basic Early Literacy Skills (DIBELS), AimsWeb, and Intervention Central. Although some curricula include progress monitoring measures for use by teachers, few teachers engage in progress monitoring due to time constraints (Bentz & Shinn, 1990), or aren't fully trained on how the assessments inform instruction or how to interpret the results so they can use the data to alter their instruction.(Santi & Vaugh, 2007). By familiarizing themselves with these resources and the empirical literature on CBM, school psychologists can be central figures in selecting appropriate measures for universal screening of all students in basic skill areas to inform instruction.

Tier 2 Instructional Consultation Services

Tier 2 involves a more refined definition of a student's academic problem, greater analysis of potential causes of the deficit, and more intense, empirically based interventions (Fuchs & Fuchs, 2006). Accordingly, school psychologists who provide instructional consultation may need to (a) conduct advanced individually administered academic assessments such as error analyses and Experimental Analysis of Academic Behavior (EAAB); (b) collaborate with a student support team on developing individualized intervention goals, supplemental instruction, and curriculum modifications; and (c) assist in collecting progress monitoring data and applying decision rules to determine if Tier 3 interventions are warranted.

Advanced assessment. Interventions often are developed on a 'trial-and-error' basis despite evidence that pre-intervention assessment data can identify differential responses to interventions (Noell, Freeland,

Witt, & Gansel, 2001 as cited in Duhon et al, 2004). The extensive research on Aptitude-by-Treatment (AtI) interactions indicate the best way to ensure treatment utility is to directly assess students' responses to academic tasks, rather than assessing cognitive processes that may or may not have an indirect effect on academic responding (Cronbach, 1975). Two direct assessment procedures that inform intervention development are error analysis and Experimental Analysis of Academic Behavior (EAAB). The former, which is rather wide spread, involves identifying the strategies or sub-skills that are underdeveloped and lead to errors in academic responding. For example, careful analyses of a child's oral reading errors may indicate she omits word endings; has trouble blending multi-syllabic words; and misreads some common, high-frequency sight words. This information is then used to identify the skills for which she will receive direct instruction in a one-on-one or small group setting.

EAAB involves the brief and direct assessment of an academic behavior under systematically manipulated conditions to identify the most effective intervention for a particular child (Daly, Andersen, Gortmaker, & Turner, 2006; Duhon et al., 2004; Jones & Wickstrom, 2002). EAAB is based on single-subject design, which requires repeated measures (most commonly CBM-reading) across conditions and over time (Jones & Wickstrom, 2002). Typically, the student's motivation to meet the demands of an academic task is assessed first by offering an incentive contingent upon making substantial improvement (for example, increasing his last oral reading fluency rate by 30%). If the students' performance does not significantly improve, then underachievement may be due to a skill rather than performance deficit. This is important information to share with teachers who often believe that a student could perform better if he or she "just tried harder." A student may have a skill deficit because they have not yet acquired the skill (acquisition), have had insufficient opportunity to practice the skill (fluency), or they fail to generalize the skill to functionally related tasks (Daly, Witt, Martens, & Dool, 1997). An acquisition problem is assessed by measuring improved performance on a probe after delivering brief direct instruction (e.g., modeling, guided practice, corrective feedback) on the content of the probe. A skill deficit due to poor fluency is assessed by measuring improved performance after repeated practice of the probe. By administering a probe that contains much of the same content as the instructional probe, a student's ability to generalize the skills they learned during the intervention is assessed. Long-term interventions are then based on providing interventions that address the performance or particular skill deficit.

Student support teams. Students who do not respond to the standard protocol interventions at Tier 1 are commonly referred to a multi-disciplinary team (often termed Student Support Team; SST) for more individualized problem-solving. By conducting assessments that inform intervention development, school psychologists can make substantive contributions to the SST that develops Tier 2 interventions. Through instructional consultation among the members, the SST:

1. Engages in systematic assessment of learning problems through curriculum-based and instructional environment measures.

2. Establishes an intervention goal that reflects a substantial improvement in the student's rate of learning (i.e., an ambitious goal) and can be reasonably attained by the end of a 6 to 8 week intervention.

3. Implements data-based supplemental instruction and curricular modifications that are likely to increase the student's number of successful learning trials.

4. Implements an intervention evaluation plan that includes progress monitoring of the student's academic performance and a method for assessing intervention fidelity.

Applying decision-rules. K-12 students who fail to respond to interventions at this tier may require special education services. To determine eligibility, the IEP team first must consider the appropriateness and fidelity of Tier 2 interventions. Next, the team evaluates whether the failure to respond to interventions may be caused by socio-cultural or language differences. Finally, the team determines whether the students' rate of progress and relative standing to grade-level expectations are significantly low enough to warrant placement in special education. This dual discrepancy is a critical component of a RtI model. Students who, despite well-implemented evidence-based interventions, do not respond at a *rate relative to their own and to peers' performance* may require special education (Fuchs & Fuchs, 2006).

CONCLUSION

School psychologists, who have historically devoted much of their time to testing students for learning disabilities within a psychometric model, will be required to engage in a different type of practice in a RtI model. This practice involves collecting systematic, instructionally relevant assessment data and consulting with teachers on how to apply these *data to design effective interventions that are appropriate for varying levels of individual need.* This practice will require in-depth knowledge of the principles of effective instruction, tiered assessment and instructional methodologies, progress monitoring, and data-based decision making. The responses of California practitioners indicate that the potential for school psychologists to fully contribute to ameliorating students' learning problems as instructional consultants, to date, remains under-realized.

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