

The Next Big Idea: A Framework for Integrated Academic and Behavioral Intensive Intervention

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Despite advances in evidence-based core instruction and intervention, many students with disabilities continue to achieve poor academic and behavioral outcomes. Many of these students are not sufficiently responsive to standardized programs and require more intensive, individualized supports. While many interventions and school problem-solving teams focus primarily on either academic or behavioral concerns, students with the most intensive needs often have interrelated needs in both areas. The next big idea in special education should be to merge these efforts, building upon all that we have learned about problem solving at all levels of support, to improve outcomes for these students. Data-based individualization provides a framework for integrating academic and behavioral problem solving and intervention.

Looking back over the last 20 years, it is clear that the landscape of education in general, and special education in particular, has dramatically changed. The dialog in the field circa 1995 focused on concerns about large special education classes, a general “wait to fail” approach to working with children in need, and significant concerns about the core educational approach on the academic side along with the seeming lack of any consistent focus on the social behavior side (Burns & Gibbons, 2012). Today, many schools address these concerns by implementing school-wide problem solving models in which the intensity of assessment and intervention practice varies according to the student’s level of need. These models incorporate evidence-based interventions, evidence-based assessment methods, and evidence-based analytic approaches to determine a child’s or group’s response to intervention (RTI; Riley-Tillman, Burns, & Gibbons, 2013).

States, districts, and schools use different terminology to describe these multi-leveled, problem-solving systems. Some popular examples include RTI, positive behavioral interventions and supports (PBIS), and multi-tiered systems of support (MTSS; for more information on each of these terms see <http://www.intensiveintervention.org/ncii-glossary-terms>). While RTI is often associated with an academic focus and PBIS with a behavioral focus, both frameworks are intended to improve both academic and behavioral student outcomes. MTSS is generally a broader term referring to systems that provide multiple levels of support to address students’ varied behavioral and/or academic needs; RTI and PBIS may be considered examples of MTSS. While these models may in-

corporate different numbers of levels or tiers of support, many models use three. Table 1 compares three tiers of intervention in terms of the instructional or intervention approach, group size, approaches to progress monitoring, and the population served (National Center on Intensive Intervention, 2013b).

In a review of states’ implementation of multilevel systems of support, Berkeley, Bender, Peaster, and Saunders (2009) found that 47 states were implementing, developing, or planning some form of school-wide problem solving to improve outcomes for struggling students. Typically, schools focus a significant amount of resources on Tier 1 (core instruction and supports) and Tier 2 (supplemental or secondary intervention), with the hope that this will prevent subsequent problems (Burns, Riley-Tillman, & VanDerHayden, 2012). Yet, research suggests that core instruction and secondary intervention improves achievement for many, but not all, at-risk students (e.g., Connor, Alberto, Compton, & O’Connor, 2014; Fuchs et al., 2005, 2008a). Based on a review of intervention responsiveness studies, the National Center on Intensive Intervention (NCII; 2013a) estimates that such programs may not be sufficient for about 20 percent of students receiving intervention, or approximately 3–5 percent of the overall K-12 student population. These students need intensive intervention.

In sum, a stunning amount of progress has occurred over the last two decades. At the same time, anyone working in schools today knows there is still a great deal of work left to do. At this stage, the field of special education must ask a difficult question considering the landscape in 2015: *Is it time to shift focus in the field back to children with the most intensive needs?* We all know there are limited resources in schools, and time and money are increasingly focused on Tier 1 and perhaps Tier 2. It seems logical that this shift has resulted

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TABLE 1
Comparison of Three Tiers of Support

	<i>Primary (T1)</i>	<i>Secondary (T2)</i>	<i>Intensive (T3)</i>
Instruction/ Intervention Approach	Comprehensive research-based curriculum	Standardized, targeted small-group instruction	Individualized, based on student data
Group Size	Class-wide (with some small group instruction)	3–7 students	No more than 3 students
Monitor Progress	Once per term	At least monthly	At least weekly
Population Served	All students	At-risk students	Significant and persistent learning needs

Note. Adapted from “Thinking About Intervention Levels/Tiers” (slide 29) of NCII’s introductory module (2013b).

in less attention in schools and in the research community on students with the most intensive needs and disabilities, but it is also clear that these students need more support. As we refocus our attention on intensive intervention, it would be tragic if that development did not build on all that has been accomplished. While the focus on the problem solving models has been at the Tier 1 and 2 levels, the logic is just as, if not more, powerful for children with intensive needs. It is important to remember that RTI, MTSS, and PBIS are rooted, in part, in behavioral consultation, applied behavior analysis, experimental teaching, and other lines of research focused on children with intensive needs, often children with significant disabilities (Burns et al., 2012).

Our current focus in special education should be to focus all that we have learned about problem solving on children with intensive needs. It is our belief that this intensive intervention should be developed to work efficiently with school-wide problem solving models to capitalize on the developments in academic and behavioral assessment, intervention, and problem solving. In this article, we outline data-based individualization (DBI) as a fully developed problem-solving model focusing on children with intensive needs—academic, behavioral, or both—and share lessons learned from implementation in schools.

WHY DO WE NEED INTEGRATED ACADEMIC AND BEHAVIORAL INTENSIVE INTERVENTION?

Intensive intervention is designed to address the needs of students with the most severe and persistent behavioral and learning needs who do not adequately respond to their current evidence-based intervention or special education supports (NCII, 2013a). Because these students are not sufficiently responsive to standardized programs and often have co-occurring academic and behavioral challenges, they require an ongoing, data-driven problem-solving process that is individualized based on their needs, rather than a single intervention program or package.

While it is not known how many students with disabilities require more intensive intervention, multiple data sources suggest students with disabilities have an ongoing history of poor academic, behavioral, and postschool outcomes compared to their peers without disabilities. The continuing academic underachievement of students with disabilities is reflected in the National Assessment of Educational

Progress (NAEP). For example, in 2013, only eight percent of eighth graders with disabilities performed at or above the “Proficient” level in mathematics, compared to 39 percent of their nondisabled peers (data retrieved from http://nationsreportcard.gov/reading_math_2013/#/student-groups). Similar patterns are found for eighth grade reading and for fourth and eighth grade mathematics. Students with disabilities also are more likely to drop out of high school (Aud et al., 2012; Cortiella & Horowitz, 2014; Planty et al., 2008), be retained in one or more grade levels (Cortiella & Horowitz, 2014), and have interacted with the criminal justice system (Sanford et al., 2011). After high school, young adults with disabilities earn lower wages than the general population and are less likely to enroll in or complete postsecondary education and (Sanford et al., 2011).

Among students with intensive needs, with and without disabilities, academic and behavioral concerns are often interrelated or co-occurring. Behavioral or emotional difficulties impair academic engagement and performance; young adults with emotional disturbance have lower rates of postsecondary enrollment (44.9 percent) than do young adults with a learning disability (60.9 percent; Sanford et al., 2011). Academic difficulties are also predictive of behavioral difficulties and high school dropout. Hernandez (2012) found that children reading proficiently at the end third grade are four times more likely to leave school with a diploma than students who do not. A meta-analysis of the relationship between delinquency and academic performance found that approximately 20 percent of children with high academic performance became delinquent compared with 35 percent of those with low performance (Maguin & Loeber, 1996). While arrest rates are, not surprisingly, highest among young adults with emotional disturbance (49.4 percent), the rate for learning disabilities (22.3 percent) is also well above the rate for the general population (12 percent; Sanford et al., 2011). Many incarcerated youth are illiterate or marginally literate and have a history of school failure (Leone, Meisal, & Drakeford, 2002). In 2011, approximately half of students with learning disabilities were suspended or expelled; only students with an emotional disturbance faced higher rates of disciplinary actions (Cortiella & Horowitz, 2014).

Taken together, these academic, behavioral, and postschool outcomes suggest that students with intensive needs may have diverse and interrelated concerns that need to be addressed simultaneously. For these students, problem solving needs to consider the whole child, offering integrated

academic and behavioral supports when needed. However, in both research and practice, “academic” and “behavior” intervention are often addressed separately. For example, RTI has typically focused on academic intervention and assessment while PBIS has focused on developing school-wide behavior supports. While most recently the development of MTSS has argued that behavior and academic issues must be considered in the same model, schools typically have an academic intervention team and a behavior intervention team. We have rarely found school problem-solving teams examining both areas simultaneously. This separation has resulted in an industry which seemingly believes that academic and behavior issues occur independently rather than in a dynamic, recursive, integrated model (Burns et al., 2012). A trip to any middle school will show the error in this approach as children who have academic difficulty misbehave, and children who have significant behavioral issues fall further and further behind academically. It is doubtful that one can truly separate academic and behavioral outcomes at any level, but as a child’s issues become more intense, the likelihood of concurrent academic and behavior problems rises. And, despite the history of poor outcomes, intervention research suggests that the right supports can significantly improve both academic and behavioral outcomes (e.g., Fuchs, Fuchs, & Stecker, 2010; Gresham, 2004; Wanzek & Vaughn, 2009; Wanzek et al., 2013). DBI provides a framework for integrating academic and behavioral problem solving and intensive intervention.

WHAT IS DBI?

DBI serves as the foundation for NCII’s approach to intensive intervention. DBI is a research-based process for individualizing and intensifying interventions through the systematic use of assessment data, validated interventions, and research-based adaptation strategies (NCII, 2013a). This process, in which student-level assessment guides decisions on when and how intervention should be intensified, has been refined through and supported by decades of research (Capizzi & Fuchs, 2005; Deno & Mirkin, 1977; Fuchs, Deno, & Mirkin, 1984; Fuchs, Fuchs, & Hamlett, 1989).

Because DBI is intended for students for whom standard approaches are not enough, DBI is not a single approach, manual, or preset program, nor is it more of the same instruction or intervention that previously occurred at lower tiers of support (Danielson, Kern, & Riley Tillman, 2015). Instead, DBI is a validated, ongoing, and iterative process in which intervention and assessment data are linked to inform adjustments to a student’s supports over time (NCII, 2013a). Compared to Tiers 1 and 2, DBI is individualized to meet a student’s needs, involves more precise and frequent progress monitoring, and involves more intensive intervention, often with substantive changes in pedagogy and content (Danielson et al., 2015).

Figure 1 provides a graphical depiction of the DBI process (<http://www.intensiveintervention.org/>). On the NCII homepage, these clickable elements are linked to resources for each component (see Resources section below). DBI typically begins with a validated intervention program such as

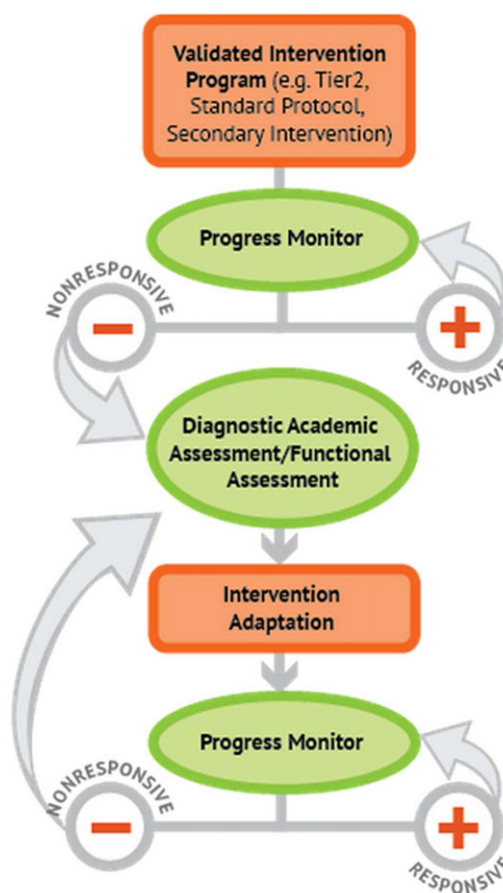


FIGURE 1 DBI process graphic from NCII homepage (<http://www.intensiveintervention.org/>).

a standard-protocol Tier 2 or secondary intervention (NCII, 2013a). Progress monitoring data indicate students’ responsiveness to that program. Those who are not sufficiently responsive require more intensive supports. For some students, it may be enough to intensify the Tier 2 intervention through quantitative changes such as decreasing group size or increasing intervention duration or frequency. Those with the most intensive needs, however, will require more significant and individualized changes to their supports. In cases where data provide strong evidence of severe or persistent needs, teams may elect to begin DBI without waiting to determine a student’s response to a Tier 2 intervention, but progress monitoring data are still used to understand the student’s current performance.

In DBI, progress monitoring is collected frequently and used to establish a baseline performance, set an appropriate goal, and evaluate whether a student is on track to successfully meet their goal. More frequent (e.g., weekly) progress monitoring allows for more timely intervention adaptations, when needed. Thus, it is critical to use reliable and valid progress monitoring tools that allow for frequent data collection and are sensitive to change at the student’s instructional level. Schools and districts searching for rigorous academic and behavioral progress monitoring

tools can consult reviews found in the NCII Tools Charts (<http://www.intensiveintervention.org/chart/progress-monitoring> and <http://www.intensiveintervention.org/chart/behavioral-progress-monitoring-tools>).

While progress monitoring tells us when we need an intervention change, we need more information about how the intervention should be adapted. Diagnostic academic assessment and functional assessment of behavior help teams determine the underlying reason for a student's academic and/or behavioral difficulties, identifying target skills or behaviors that will be addressed by evidence-based intervention adaptations. Initial diagnostic or functional assessment may vary in formality and intensity according to the student's needs. For example, team discussion may sometimes be enough to yield an informal hypothesis of why behavior is occurring but in other cases a more comprehensive functional analysis of student behavior may be required. For academics, we can often identify skill deficits by analyzing a student's progress monitoring errors but in other cases teams may choose to administer standardized diagnostic assessments. Once we have identified the student's needs, we can identify evidence-based intervention strategies that will meet those needs.

Evidence-based behavioral interventions or strategies are intended to address specific functions of behavior—a single behavior intervention cannot address all behavioral needs (NCII, 2014a). Check In Check Out (CICO), also known as the Behavior Education Program (BEP), is a good starting point for students who present externalizing behaviors and find adult attention rewarding. Michigan's Integrated Behavior and Learning Support Initiative (MiBLSi) provides an overview of and materials to support implementation of this program (<http://miblsi.cenmi.org/MiBLSiModel/Implementation/ElementarySchools/TierIISupports/Behavior/TargetBehaviorInterventions/CheckInCheckOut.aspx>). Each student in the CICO program has daily or weekly goals aligned with school-wide expectations. The student checks in and out with an adult at school each day. Additionally, teachers provide the student with frequent, regular feedback and reinforcement around their goals. For a review of studies of BEP/CICO and other behavioral interventions, see the NCII Behavioral Intervention Chart (<http://www.intensiveintervention.org/chart/behavioral-intervention-chart>).

Noncontingent reinforcement is a good choice for students who engage in a problem behavior to gain attention (NCII, 2014a). By ignoring the problem behavior and providing frequent attention and praise for other behaviors, the teacher decreases the student's motivation to act out for attention. When a student misbehaves to escape a task or situation, antecedent modification seeks to reduce the need for escape by making the situation less aversive. For example, if a student is disruptive to avoid difficult gym activities, we could make gym class less aversive by preteaching the skills needed to participate in a difficult activity, giving the student choices among acceptable gym activities (perhaps including a simplified version of the undesired activity), or offering breaks during gym class. The student is reinforced for engaging in the activity, frequently at first and fading over time as the student becomes more comfortable with the activity.

When students seek to escape a difficult academic task, we want to consider the instructional match. Is the work beyond the student's instructional level? We may need to assess the student's current level and provide appropriate academic intervention. As with antecedent modification, we might make the task more manageable to avoid problem behavior. For example, we could reduce the number of problems on a math worksheet, preteach the content or skill, or break a long assignment into smaller, more manageable tasks. The module provides guidance on implementing each of these strategies and writing a clear plan for intervention and progress monitoring.

NCII (2014b) describes four categories of practice for planning intensive academic intervention. Practice 1 is changing intervention dosage or time by increasing the quantity of instruction (e.g., by increasing minutes per session or the number of sessions). This allows more time for instruction and practice with feedback. While this may not be sufficient, this extra practice is critical as students with intensive needs may require as much as 10–30 times more practice than their peers to master new skills in mathematics and reading (Fuchs et al., 2008b; Gersten et al., 2008). Strategies for reducing transition time and increasing engagement will help make the most use of this increased time. Practice 2 is changing the learning environment to promote attention and engagement. Strategies include reducing group size, creating groups of students with similar needs, and changing the instructional setting to reduce noise and other distractions. Practice 3 is combining cognitive processing strategies with academic learning, as students with intensive needs often struggle with processes related to executive function and self-regulation. Students who struggle with memory may benefit when we teach strategies for taking notes and organizing information, present information in multiple modalities, teach routines for important procedures, review prior learning before presenting new information, frequently check for understanding, use visual or verbal cues as reminders, and model memorization strategies such as mnemonic devices or verbal rehearsal. Strategies to support self-regulation and self-monitoring include modeling thinking aloud, including students in goal setting and progress monitoring, explicitly teaching and modeling the use of strategies and routines, teaching students to ask for help, highlighting behaviors that lead to improved achievement, and teaching students to reflect on their learning, understanding, and problem-solving approaches. We can help students make more positive attributions by including students in setting goals, connecting student effort to progress (and reinforcing progress), and providing scripts or strategies to counteract negative self-talk. Practice 4 is modifying delivery of instruction through prioritizing skills to be taught based on instructional match; providing systematic and explicit instruction; using simple, precise, and replicable language; providing frequent opportunities to respond, including opportunities for guided and independent practice; and providing specific feedback. Schools and districts searching for evidence-based academic interventions to individualize using these categories of practice can consult reviews found in the NCII Academic Intervention Programs Tools Chart

(<http://www.intensiveintervention.org/chart/instructional-intervention-tools>).

Returning to Figure 1, ongoing progress monitoring data determine the student's response to the adapted or new intervention. In cases where students are not making adequate progress towards their goals, teams consider the fidelity of assessment and intervention implementation, the sensitivity of the progress monitoring measure, and student factors that could impact engagement or performance. If the team determines that the intervention has been implemented well, the student is engaged, and progress monitoring data accurately depict the student's growth, it is time to revise the intervention plan, revisiting functional/diagnostic hypotheses when needed. As previously mentioned, DBI is not a single intervention or one-time fix; instead, it is an iterative process in which ongoing student data collection and review guide intervention decisions.

Applying the DBI Process to a Hypothetical Case

Danielson et al. (2015) applied the DBI process to a hypothetical case about a student Jeff. Jeff is a 12-year-old student with aggressive and disruptive behavior. His school provides Tier 2 behavioral supports for students who have more than two office disciplinary referrals for two or more months, despite teaching and reinforcement of classroom expectations as part of the school-wide positive behavior support system. Over the first three months of the school year, Jeff was referred five, three, and six times, respectively, compared to a school average of well below one referral per student. For Tier 2, Jeff participated in CICO with a 70 percent of possible daily points. After two weeks, however, Jeff met this goal only two of ten days. The school's problem solving team, which included the principal, school psychologist, and a rotating membership of special educators and academic and behavioral specialists (depending on grade level and student needs), met with Jeff's teachers to plan intensive intervention using the DBI process. The team hypothesized that his behavior served to escape undesirable situations and gain attention. To address the latter function, the team intensified CICO by adding a third, mid-day check in and calling home when he earned 75 percent of points. However, over the next ten school days, he met the new goal only twice. The team decided he needed more intensive, Tier 3 support.

The team conducted a more formal FBA to better understand his needs. Both Jeff and his homeroom teacher completed an FBA questionnaire. Over two weeks, all of Jeff's teachers collected information on the antecedents and consequences of behavior in their classrooms, and the school psychologist directly observed his behavior five times. This allowed the team to confirm and further refine their previous functional hypotheses. They found that Jeff does indeed misbehave to gain attention from both adults and peers. The escape function of behavior was most commonly associated with lengthy tasks and work that Jeff found difficult, usually reading assignments. This suggested a need for academic support. To help prevent problem behavior related to long or difficult tasks, his Tier 3 support plan included Tier 2 reading instruction, instructions read aloud, two breaks per

period, and after-school homework support. During class, he was seated next to a friend and allowed to request help. He was also prompted at the start and middle of each period to request assistance or a break when needed. When misbehavior occurred, staff responded with reminders to request help or a break or by removing points from his daily point card.

Although Jeff presented with several specific problem behaviors, the team prioritized and defined two, hitting/kicking and threatening, for progress monitoring. Teachers kept a frequency count of hitting/kicking and used a modified direct behavior rating (DBR) form to track how often he verbally threatened to harm others during each class period. For more information on DBR, an efficient alternative to systematic direct observation, see <http://www.directbehaviorratings.com/cms/> or NCII's DBR Overview (<http://www.intensiveintervention.org/video-resource/direct-behavior-rating-overview>). They began this individualized progress monitoring while the intensified CICO was still in place, allowing them to look for changes once intensive intervention was implemented. Graphed data showed that both behaviors decreased following the intervention change. The team will continue implementing this plan as long as it meets his needs. With enough progress, they may consider reducing supports. However, if behavior worsens again, the team would revisit the plan. As seen in Figure 1, when a student is nonresponsive to an intervention adaption, the team revisits the diagnostic/functional assessment phase, revising their hypothesis as needed and identifying new adaptations to address those needs. In this recursive model, we keep adapting until we find something that works.

In the next section, we review what we have learned about implementing DBI in real-world settings.

WHAT DOES IT TAKE TO IMPLEMENT DBI IN SCHOOLS?

Lessons Learned in NCII's Partner Districts

NCII provides intensive technical assistance (TA) to several school districts in four states. Each district selected pilot elementary schools, usually two per district, to participate in training on DBI. Initial training, occurring approximately monthly, built upon an eight module series including academic and behavioral assessment and intervention. Additional training sessions reflected the needs of individual districts or schools. Coaches supported understanding and school-level application of training content with an increasing focus on support for implementation of DBI with students with intensive needs. The Center provided coaches with training, guidance documents, and tools to support implementation (see the section on NCII Resources below). After one to two years of DBI training and implementation, NCII staff and coaches met with schools to review implementation using NCII's *DBI Implementation Rubric* and *DBI Implementation Interview* (<http://www.intensiveintervention.org/resource/dbi-implementation-rubric-and-interview>), which are aligned with the essential components of DBI and the

infrastructure needed for successful implementation in Grades K–6. These tools yield ratings of the extent of implementation of key components of the DBI process. At the school level, findings were used to identify strengths and needs within current implementation and plan future TA supports. Patterns across sites have informed NCII’s product development and TA approach, including a better understanding of the essential elements of DBI implementation. For more information, see Kuchle, Lemons, Riley-Tillman, and Danielson (2015).

School-Level Implementation: Essential Elements

Patterns observed in the spring 2014 implementation review meetings, along with additional feedback from NCII trainers and coaches, led to the identification of essential elements of school-level DBI implementation. Within each element, some aspects are key while others may be more flexible.

Staff Commitment

NCII TA providers have found that strong DBI implementation particularly requires the commitment of the school’s principal, intervention staff, and special educators. The specific intervention providers working with students with intensive needs may vary, but little can be accomplished without staff buy-in and leadership support.

Progress Monitoring

Intensive intervention must be informed by valid, reliable progress monitoring tools that are sensitive to student growth, with data collected regularly and graphed. As long as these requirements are met, the specific choice of tool may vary. Schools also have flexibility regarding the use of progress-monitoring data to inform lower tiers of support, although effective practices in this area can support accurate identification of students with intensive needs and improve efficiency of staff and resource allocation. In our implementation review meetings, we found that NCII partner schools were likelier to have strong progress monitoring tools and practices in reading compared to mathematics and behavior. This is not surprising given that fewer validated tools are available for behavior. Furthermore, many schools have a longer history of reading assessment and intervention compared to mathematics and behavior, and some pilot schools opted to focus initial DBI implementation on reading.

Student Plans

Each student requiring intensive intervention should have an individual plan informed by timely, accurate data and includes (a) one or more goals based on valid, reliable assessment tools and (b) explicit timelines for executing and revisiting the plan. Many NCII pilot schools struggled with

consistently documenting intensive intervention plans in sufficient detail, which may have contributed to poorer implementation in other areas. For example, schools tended to have relatively low implementation ratings for monitoring fidelity (of assessment and intervention) and implementing clearly articulated, data-based decision rules. These areas could be improved by plans that clearly lay out specific plans for intervention and data collection, including responsible parties, and how teams will determine if students are making sufficient progress towards their goals. To support stronger plans and improve fidelity, schools may choose to initially develop and implement plans with a small number of students (e.g., focusing on specific content areas or grade levels) rather than attempting to implement DBI for all students in need.

Student Meetings

Student plans are developed during data-driven, regularly-scheduled team meetings that are structured for efficient problem solving. The frequency and schedule of such meetings may vary, as well as the team members who participate (which may vary by the student’s needs, grade, etc.). While schools were relatively strong in scheduling regular meetings, they had lower ratings for consistently implementing DBI for all students who require it. This may suggest a need to improve meeting processes so that they reflect school expectations for determining who needs DBI and it is implemented across grades and areas of need.

Students with Disabilities

Lastly, to effectively meet the needs of this population, students with disabilities must have access to intensive intervention. Schools may vary in terms of who delivers intensive intervention and the extent to which students with and without disabilities are served together. Some schools have reported that separate problem solving and intervention processes for students with disabilities sometimes result in special education services that are less intensive than the strongest supports provided to their general education students.

School-Level Implementation: Challenges and Opportunities

The two and half years of DBI training and implementation in NCII partner schools have taught us much about the application of the model in varied settings. While schools face many challenges and barriers, they have also found opportunities to improve implementation and student outcomes.

One of the most significant challenges is the absence of a school team dedicated to designing and supporting intensive interventions. While we found that all partner schools had some sort of problem-solving team (e.g., intervention or data teams), they were not specially focused on working with the children in the most intensive level of support. Rather, schools often had an established school-wide behavior team (typically PBIS) and a school-wide RTI team. While these

teams do valuable work, their focus is quite different than that of an intensive intervention team. First, these school-wide teams typically focused on either behavior or academics in isolation rather than addressing both simultaneously. This model resulted in teams overemphasizing on their primary domain when looking at a specific child and minimizing the role of the other domain. For example, school-wide behavior teams tended to minimize academic failure as a core reason for problem behavior. This approach resulted in the application of a behavior intervention (e.g., Check In Check Out) for all behavior needs, even in cases where the child seemed to be exhibiting frustration from significant academic failure. While Check In Check Out is a highly effective intervention for many students with certain problem behaviors, it is unlikely to be effective if the child cannot do any of the work required. A second issue with school-wide teams is that in their primary role they focus on the whole school implementing interventions in a consistent manner. While this is ideal at whole school or even class-wide or small group levels, intensive intervention must be individually tailored to be effective. Finally, the teachers and educational professionals in the school most interested in problem solving staffed these school-wide teams. Given that these teams had a great deal of work to do at the school-wide level, this left little time to focus on individual intervention. Sadly, this effectively removed the most motivated staff members from working with the children with the greatest needs.

In some schools, children in special education were actually excluded from intervention services because Tiers 1 or 2 were considered only for general education students. While that model would be somewhat acceptable if there were more intensive intervention opportunities in Tier 3, this was not always the case. Most NCII partner schools lacked dedicated Tier 3 teams and often struggled to distinguish between Tiers 2 and 3, leading us to believe that this is one of the unfortunate side effects of the intense Tier 1 and 2 focus over the past decade. While this is a concern, it also presents a great opportunity. Establishing or reestablishing a team dedicated to intensive intervention in schools with developed Tier 1 and 2 practices is a logical first step for any school without such a team in place. Schools without strong problem-solving teams at any tier, however, struggled more to establish a team focused on intensive intervention, as they were less likely to have the assessment, intervention, and meeting structures and processes to build upon. We have found that a well-trained Tier 3 team implementing DBI can dramatically impact the outcomes of children with intensive needs.

Our other findings were quite consistent with much of the literature on school-wide problem-solving models. As discussed above, leadership support was critical to establishing DBI in schools. In addition, pragmatic issues like scheduling and resource allocation were constant themes for both training and maintenance of effective teams. One interesting targeted finding in terms of resources and expertise was the gap between reading and other areas. Partner schools almost universally indicated lower levels of expertise in dealing with severe behavior issues and academic problems outside of the domain of reading. The reported lack of training with regard to targeted behavior intervention expertise was a bit surpris-

ing as most schools had long histories with PBIS. Regardless, there seems to be more need for training in behavior, mathematics, and written expression/content than in reading when focusing on intensive problems.

Scaling Up Beyond the School Level

Our lessons learned from school-level implementation can inform broader implementation efforts. A key starting point is leadership support. Without strong school and district leadership and supportive policies, some NCII partner schools struggled to mobilize the systems and resources needed to implement DBI, despite external support for training and coaching. However, some NCII partner districts have begun to expand DBI to other schools with varying degrees of NCII support. Such scale-up efforts require school-level commitment as well as district support, both for leadership and supporting access to needed resources and professional development. State and regional professional development partners can support such efforts in schools and districts. States can support scale up across districts by providing organization and resources to secure buy-in, provide context-appropriate TA, support initial and ongoing implementation, and ensure monitoring and ongoing improvement of these efforts.

NCII Resources to Support Implementation

The NCII website (<http://www.intensiveintervention.org/>) provides resources for learning about and supporting the implementation of DBI. The module *Getting Ready to Implement Intensive Intervention: Infrastructure for Data-Based Individualization* was developed to address some of the systems and infrastructure barriers identified in the pulse checks by providing school teams with the information needed to determine their readiness for, make an informed commitment to, and begin planning for DBI implementation. This module has been used in part or whole in NCII partner districts interested in expanding to new schools. Trainers and coaches can use the DBI training series (<http://www.intensiveintervention.org/content/dbi-training-series>) to help teams acquire the knowledge and skills needed to implement DBI in reading, mathematics, and behavior. The eight-module series includes an introduction to DBI and modules on academic and behavioral progress monitoring, diagnostic/functional assessment, and intervention. These modules, which include coaching guides, were used to provide TA in NCII partner districts and may be customized to district or school context. Webinars (<http://www.intensiveintervention.org/resources/webinars>) provide briefer overviews of these and other topics. Ask the Expert videos (<http://www.intensiveintervention.org/resources/ask-the-expert>) provide brief responses to frequently asked questions.

Teams ready to begin student-level DBI implementation may benefit from NCII's tools to support intensive intervention data meetings (<http://www.intensiveintervention.org/tools-support-intensive-intervention-data-meetings>).

These include guidance, agendas, and forms (including referral and note-taking forms) to support initial intensive intervention planning meetings and follow-up, progress monitoring meetings. Some NCII partner schools have adopted or modified these forms. Illustrations of standards-relevant instruction across levels of a tiered system (<http://www.intensiveintervention.org/illustration-standards-relevant-instruction-across-levels-tiered-system>) are available for mathematics and reading. Sample lessons and activities (<http://www.intensiveintervention.org/sample-lessons-activities>) provide guidance and resources for mathematics and behavior; reading resources will soon be available, as well.

CONCLUSIONS

While we have come a long way in more efficiently serving most students, a subset of students with disabilities and other students with the most intensive needs continue to demonstrate poor outcomes. DBI provides a framework for meeting the needs of these students by using student-level data to guide team decisions regarding when and how an intervention needs to be individualized. This iterative process is not a single intervention or one-time fix but rather a flexible, integrated approach to considering and addressing academic and behavioral concerns simultaneously. Early work in NCII partner sites has revealed many challenges and barriers to school-level implementation but also has led to strategies and resources for improving implementation. While progress in sites has varied considerably, some schools are reporting improved outcomes for students receiving intensive intervention designed, continuously monitored, and revised as needed using the DBI process.

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