Closing the Achievement Gap of Youth with Emotional and Behavioral Disorders through Multi-Tiered Systems of Support

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Abstract

It is well documented that youth with or at-risk for emotional and behavioral disorders (E/BD) have severe deficits in their academic functioning. To begin to address these deficits, we focus on the need to close the opportunity gap by providing access to multi-tiered systems of academic prevention, maximizing academic learning time, and providing explicit instruction for youth with E/BD. We offer recommended positive behavior interventions and supports necessary to improve engagement in instruction. Closing the achievement gap using multi-tiered academic supports requires best practices for universal screening and diagnostic assessment to understand youth academic needs. We detail the key elements of explicit instruction directly linked to improved academic performance. We conclude with alterable instruction factors for intensifying instruction and emphasize the need for intensive language instruction for the majority of youth with E/BD.

KEYWORDS: Multi-Tiered Systems of Support, Academic Intervention, Achievement Gap, Emotional and Behavioral Disorders, Engagement

Youth with emotional and behavioral disorders (E/BD) require multi-tiered systems of support (MTSS) or prevention, due to the intensity of their behavioral *and* academic challenges. Indeed, a plethora of research has demonstrated that youth with E/BD show moderate to severe academic skill deficits that worsen over time relative to typically achieving youth (e.g., Wagner, 1995) and youth with

learning disabilities (e.g., Scruggs and Mastropieri, 1986). A large body of literature indicates that the social and behavioral challenges of youth with E/BD interfere with instruction and, in turn, result in learning difficulties (e.g., Hagan-Burke, Kwok, Zou, Johnson, Simmons, & Coyne, 2010). Indeed, national studies indicate youth with E/BD have an average GPA of 1.4, are absent an average of 18 days per school year, and 58% drop out (e.g., Bradley, Doolittle, & Bartolotta, 2008). Data from the Special Education Elementary Longitudinal Study and the National Longitudinal Transition Study-2 reveal that, compared with peers with and without other disabilities, youth with E/BD experience the bleakest school and post-school outcomes (Wagner et al., 2006). These youth are at a much higher risk for being arrested, using and abusing illicit substances, obtaining and maintaining employment, lower income earning, and long-term dependence on the welfare system and mental health services (e.g., Mayer, Lochman, & Van Acker, 2005).

Multi-tiered prevention systems of academic support are effective for closing the achievement gap experienced by youth with E/BD. Several reviews of the literature suggest that youth with E/BD respond to explicit teaching delivered in a range of formats (e.g., large group, small group, individual; Benner, Nelson, Ralston, & Mooney, 2010; Mooney, Epstein, Reid, & Nelson, 2003; Ralston, Benner, Tsai, Riccomini, & Nelson, in press). This is encouraging to staff seeking to improve the academic outcomes of youth with E/BD (Nelson, Benner, & Mooney, 2008). Explicit instruction is an unambiguous and direct approach to teaching with an emphasis on providing students a clear statement about what is to be to learned, proceeding in small steps with concrete and varied examples, checking for student understanding, and achieving active and successful participation of students (e.g., Baker, Fein, & Baker, 2010; Nelson et al., 2008). Its effectiveness for improving academic achievement is supported by research (National Institute of Child Health and Human Development, 2000). Further, explicit academic instruction works for youth with E/BD served in community, non-school based settings as well. For example, after a decade of study into the educational needs of juvenile offenders, researchers of the Juvenile Justice Educational Enhancement Program (JJEEP, 2005) concluded that explicit, individualized instruction, particularly focused on reading, was a best practice to address the educational needs of this population. In their systematic review of empirical evaluations of programs to reduce crime, researchers from the Washington State Institute for Public Policy found that educational programs made the largest contribution to crime reduction of the multiple programs reviewed, reducing recidivism by 19.4% (Drake, Aos, & Miller 2009).

Federal initiatives (Individuals with Disabilities Education Improvement Act, 2004; National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010; No Child Left Behind Act, 2001) require that all youth have access to effective primary or core (tier I) prevention. Youth with E/BD tend not to have full access to primary academic prevention provided to all youth in a school because they are likely to be primarily educated in self-contained settings (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). Researchers observing self-contained classrooms serving youth with E/BD reported that the majority of teachers provided little or no instruction (e.g., Shores, Jack, Gunter, Ellis, DeBriere, & Wehby, 1993). While researchers have examined the achievement gap that widens over time between youth with E/BD and their peers, perhaps the more salient concern is the gap in opportunity to access primary prevention and the supplemental explicit instruction offered within secondary and tertiary prevention systems. Closing the achievement gap begins with first closing the opportunity gap, or the gap in access to primary, secondary, and tertiary prevention systems.

At every level of prevention, effective instructional and classroom management practices provide the foundation for youth engagement and learning, which in return is associated with decreases in problem behaviors (Conroy, Sutherland, Haydon, Stormont, & Harman, 2008). To illustrate, Nelson (1996) conducted a comparative analysis of the effects of explicit instruction, cooperative learning, and independent learning instructional approaches on the classroom behavior (i.e., on-task and disruptive behavior) of youth with E/BD. They found differences in the classroom behavior of youth during the three instructional approaches. Youth consistently displayed higher rates of on-task behavior and lower rates of disruptive behavior during explicit instruction. These results indicate that explicit instruction is a powerful tool available to teachers to improve the classroom behavior of youth with E/BD.

In the remainder of this article, we begin with the need to close the opportunity gap by maximizing academic learning time for youth with E/BD as a form of prevention for further difficulties. Despite the fact that youth with E/BD are responsive to instruction, the academic needs of this population are often eclipsed by their behavioral needs (Warr-Leeper, Wright & Mack, 1994). We provide a summary of the behavioral mechanisms that contribute to non-compliance, defiance, and lost instructional time. We offer recommended positive behavior interventions and supports during instruction. Next, we focus on closing the achievement gap using multi-tiered academic supports. We highlight use of universal screening and diagnostic assessment

to understand youth academic needs. Finally, we detail the key elements of explicit instruction directly linked to improved academic performance.

Closing the Opportunity Gap:
Maximizing Instructional Time

One of the largest impediments to improving academic instruction provided to youth is the fact that adults tend to focus more attention on interventions and techniques designed to ameliorate youth behavior in an effort to create an environment that is conducive to instruction (Levy & Chard, 2001). The assumption is that instruction cannot occur unless youth behavior is under control. The end result is much adult attention is devoted to managing disruptive behavior with instruction not afforded much time or careful attention. Researchers have found that about 58% of devoted classroom instructional time is lost due to problem behavior (e.g., off-task, disruptive; Martella, Nelson, Marchand-Martella, & O'Reilly, 2012). Of course, even when youth are engaged, they may not be successful with the academic task. Researchers have found that youth are *engaged and successful* only 17%, or about one hour, of the 6 hours of available instructional time per day in typical settings (Martella et al., 2012). The window of opportunity for academic learning time, where youth are engaged and successful, is smaller for youth with E/BD given that teachers of these youth devote approximately 30% (less than 2 hours) of the school day to academic instruction (Wehby, Lane, & Falk, 2003).

Coercion theory provides an explanation for the lack of instructional focus for youth with E/BD (Patterson, 1995). Researchers indicate that these same coercive interaction patterns occur between teachers and youth who exhibit disruptive behaviors, resulting in youths' behavior directing teachers away from instruction. The sequence of teacher instruction followed by youth noncompliant or disruptive behavior lead to escape and avoidance behaviors by the teacher (Gunter, Jack, DePaepe, Reed, & Harrison, 1994). The end result is teachers reduce their overall curriculum demands and often terminate instruction by removing the youth from the classroom or by simply not asking the youth to complete academic tasks.

Positive Behavior Interventions and Supports
for Youth Engagement

In their review of the literature on reading interventions for youth with E/BD, Coleman and Vaughn (2000) highlighted the need for embedded instructional management procedures and motivators

to help youth regulate their attention and behavior as well as actively engage during instruction. When youth engagement is high, youth are much less likely to exhibit inappropriate behaviors. This finding aligns with that of Nelson, Benner, and Gonzalez (2003) who used meta-analytic techniques to examine learner characteristics that predict responsiveness to explicit reading instruction. Problem behavior ($Zr = .46$), including inattention and disruptive behavior, was the second strongest predictor of responsiveness to effective reading interventions. Interestingly, problem behaviors were more influential than phonological awareness, alphabetic principle, memory, IQ, and demographic variables (e.g., ethnicity, sex, etc.) to responsiveness. In the remainder of this section, we provide a brief overview of several strategies to use within the positive behavior interventions and supports (PBIS) framework to keep youth with E/BD engaged in learning which are appropriate for restrictive settings and can be intensified across the tiers of prevention.

PBIS. Consistent with the core principles of MTSS, positive behavior intervention and supports (PBIS) uses a continuum of behavior interventions to understand and meet youth social, emotional, and behavioral needs. PBIS is a MTSS framework for behavior, establishing the social culture and behavioral supports needed for schools to be effective learning environments for all youth. A positive facility or school culture means is one that is predictable (i.e., common language, common understanding of expectations, common experience), positive (i.e., regular recognition for positive behavior), safe (i.e., violent and disruptive behavior is not tolerated), and consistent (adults are "on the same page" with behavioral expectations). PBIS holds particular promise for students with or at-risk for E/BD as a unified structure to (a) prevent the development of E/BD and (b) address existing instances.

Clear expectations and consequences. First, clearly articulate and explicitly teach behavioral expectations for each instructional context. Consider the five SLANT expectations (**S**it up, **L**isten, **A**sk and Answer Questions, **N**od your head, **T**rack the speaker) during instructional time. Second, after teaching behavioral expectations for each instructional context, the teacher should walk the youth through the process she will use to help youth manage their own behavior if they are having a difficult time showing one or more SLANT expectations (Benner, Sanders, Nelson, & Ralston, in press). We suggest teaching all youth that if they have a difficult time with behavioral expectations, the staff will provide a non-verbal cue (e.g., proximity or make eye contact with youth and point to expectations poster on the wall). Staff should teach youth two non-verbal teacher behaviors they will

use and model their use during small group, whole class, and independent seat work activities.

Next, if the behavior of concern continues during the instructional context, staff should use a precision request, or short verbal statement to encourage the youth to exhibit on-task social behavior. For example, the teacher would walk by the youth and say, "SLANT Please" (or another short, positive, precision request) then walk away, keep teaching, and look to praise other youth engaged in learning (e.g., "Juan, you are a superstar listener today!"). Staff should be consistent with the phrase they say for a precision request and only say it once (without repetition) for each youth during the instructional context (e.g., small group work). However, it is likely that the teacher may need to provide another nonverbal followed by a precision request in the next instructional context (e.g., independent activity), particularly when instructing youth with E/BD. So, every time a new instructional context begins, youth get a fresh opportunity to manage their behavior. If the youth continues to have difficulty managing their behavior during the same instructional context, the teacher should move the youth nearer to her and keep instruction going. If the behavior continues, the teacher could use a strategy such as Think Time (Nelson & Carr, 2000). Think Time includes a reflective period away from the instructional setting for the student to gain self-control (i.e., thinking time) followed by a behavior debriefing process with an adult other than the one who sent the student to Think Time. Of course, if the student does not go to Think Time the teacher should continue teaching and calmly ask for assistance from security.

The concept underlying this approach for responding to behavior is elimination of coercive interactions between staff and youth with E/BD. These interactions depend upon multiple behavioral prompts, corrections, and warnings in response to problem behavior. Teaching youth the non-verbal, precision request, and using proximity will allow instructional momentum to continue and teacher attention to remain focused on youth learning. Staff should always remember to keep teaching and stay focused on youth learning during instruction, particularly when instructing youth with E/BD. A rigorous study using a randomized controlled trial design with students with externalizing E/BD has been conducted this PBIS approach to combining clear expectations and the system for responding to behavior during classroom instruction. Results revealed, that youth with externalizing E/BD in the treatment condition (n = 44) exhibited lower levels of problem behavior ($ES = -.99$) and higher rates of on-task behavior ($ES = .61$) compared to their counterparts in the control condition (n = 26) (Benner et al., in press). Treatment effects were stronger for youth

in schools with higher (i.e., more at-risk) levels of behavior problems, and for youth with relatively higher (i.e., more at-risk) problem behaviors.

Interdependent group contingency systems. We recommend two interdependent group contingency systems to increase engagement during instruction. The first approach is the *Good Behavior Game* (GBG), an evidence-based approach for peer reinforcement of positive behaviors during small group instruction, learning centers, or whole class instruction with k-12th grade youth with E/BD (Barrish, Saunders, & Wolf, 1969) which is applicable for restrictive settings. Youth are rewarded for displaying appropriate learning behaviors (e.g., SLANT) during facility-/school-wide PBIS instructional times. The class or group is divided into two or more teams and a point is given to a team for any inappropriate behavior displayed by one of its members. Thus, the contingencies are in effect for all team members but are applied for overall team performance (youth are interdependent). Teams whose point totals fall below a preset criterion win the game and the group reward.

Another approach is the *Effortful Engagement Strategy* (EES; Nelson et al., 2008). Much like GBG, the EES is an interdependent group contingency system between the teacher and one group of youth. It is used primarily in small group, one-on-one, or resource room contexts. Youth score five points each time staff notices any youth demonstrating the expectations (e.g., SLANT) during a facility-/school-wide PBIS instructional situation or youth are having success on lesson or activity tasks. The staff member receives five points each time youth exhibit behavior that is disruptive to learning. The staff member does not point out who is disrupting the lesson or give attention to the problem behavior. Staff use an easily accessible small white board (e.g., placed on lap or table in front of them) to make hash marks, which represent points, using a two column chart or T-Chart. One side of the T-Chart is labeled "Staff," and the other is labeled "Youth." This serves to redirect youth toward the expected behaviors without initiating coercive staff-youth interactions or power struggles over disruptive behavior during instructional situations. Staff tallies the points recorded for the youth and the staff at the end of the instructional session. Staff provides youth social recognition or administers the appropriate prize, privilege, or special activity if the youth wins the game. If staff wins the game, staff points out the behavior youth need to work on the next time, an opportunity for reteaching and clarification of the behavioral expectations.

Closing the Achievement Gap Using Multi-Tiered Academic Supports

Central to a multi-tiered prevention system, such as the PBIS framework, is accurate identification of the level of intensity of support necessary to meet youth needs. Universal screening data provide an understanding of what areas of mathematics, reading, written language, and behavior need improvement and the risk status (not, some, or at-risk) of each youth. Screening is the first step toward understanding the academic and behavioral needs of youth with E/BD. It is hard to overstate the importance of screening—without it staff may be frustrated and stressed when a youth with E/BD will not complete tasks that they are repeatedly asked to do. Tasks or activities that the youth is repeatedly asked to do could be at a frustration (too hard) or too easy (independent) level. Spending minimal time screening would provide staff with an understanding of youth academic and behavioral needs and prerequisite skills. To identify reliable and valid academic screening tools, the reader is encouraged to explore the National Center on Response to Intervention (NCRtI) Screening Tools Chart (*http://www.rti4success.org/screeningTools*).

We also recommend two diagnostic procedures for youth with E/BD prior to launching into explicit instruction. These two steps are important to determine whether the intervention or instruction will match the level of the youth. For academics, the first step is to conduct a survey level assessment, or broad-band assessment, to obtain a reading or math instructional level (Howell & Nolet, 2000). An example of survey level assessment in reading is collecting multiple reading samples across levels of difficulty until the instructional reading level of the youth is found. For a 6th grade student, the staff would begin by finding the median of three randomly selected 6th grade curriculum based measure (CBM) reading fluency passages. If the median falls in the frustration zone, the staff selects three randomly selected 5th grade CBM passages, administers them to the student, and computes the median words read correctly per minute. The staff continues this process until youth performance falls in the instructional zone, which is the reading level of the student. These data can be very helpful to adults who provide content area instruction. For example, they may not be aware that the youth may be reading several grade levels below their grade level. Rather than blame the youth for being unmotivated to complete grade level work that requires grade level reading comprehension, staff can support the youth in content courses and provide supplemental reading intervention.

The second step is the "can't do/won't do assessment" (VanDer-Heyden & Witt, 2007), a quick and easy way to determine whether

a student's low performance is due to a skill deficit (can't do), a motivation deficit (won't do), or a combination of both. The "can't do/ won't do assessment" is conducted with youth who do not perform in the instructional range on the survey level assessment or on universal screening (below 16th percentile on an academic screening assessment). This assessment takes about 5 minutes. The school psychologist or special educator who conducts the assessment offers the youth an opportunity to select a reward from a "treasure chest" contingent on "beating the score" from the screening assessment. Youth whose scores improve to the instructional range to earn an incentive illustrates that the youth can perform the skill given the right motivating conditions. In this case, the focus of instructional support is on work completion, or reinforcement (usually escape) contingent upon completing tasks that the youth is able to complete. The staff would monitor work completion and require that inadequate work be re-done at a time inconvenient for the youth (e.g., youth free time) while small privileges can be offered for correct work completion. Youth who are unable to improve their scores to the instructional range likely require more intensive and individualized instructional supports. The Utah Professional Development Center has can't do/won't do assessments (reading and math) available for free (*http://wiki.updc.org/groups/devin-healey/wiki/73c82/*).

Explicit Instruction: Essential to Close the Gap

Being an effective teacher requires use of instructional momentum techniques and the functions of explicit instructional lessons. The functions of explicit instruction should be used whether staff are teaching tier 1, tier 2, or tier 3 prevention within the MTSS model. Based on our experience, with few exceptions (e.g., Direct Instruction programs from SRA/McGraw-Hill; *http://www.sra.com/*), lessons in most core curriculum programs used by schools do not incorporate directly and consistently the functions of explicit instruction. In contrast, most evidence-based supplemental interventions designed to be delivered at the tier 2 and/or 3 levels include the functions of explicit instruction. The reader is encouraged to explore What Works Clearinghouse (*http://ies.ed.gov/ncee/wwc/*), , Best Evidence Encyclopedia (*http://www.bestevidence.org/*), and the National Center on Intensive Intervention (http://www.intensiveintervention.org/) for reviews of evidence-based programs in reading, math, language arts, and other content areas. These clearinghouses provide user-friendly summaries which allows consumers to select and compare the effectiveness of instructional programs and make informed decisions about what would work best with their population of youth, area of focus (e.g.,

reading, math), and school or community context (e.g., elementary, middle).

Achieving instructional momentum. Research into effective teaching has shown that staff must achieve instructional momentum during lessons (Rosenshine & Stevens, 1986). The first element of instructional momentum is lesson pacing. Good lesson pacing gives youth the perception that the lesson or class is moving at the right speed. The second element of instructional momentum is effective transitions. Transitions are periods of time when staff direct youth to end one task or activity and begin another. Youth with E/BD benefit greatly from structured transitions (average of 15 a day in classrooms). Chaotic transitions are setting events for problem behavior. We strongly suggest staff have a clear, consistently used, explicitly taught attention signal (e.g., "Class, SLANT Please!") including a physical prompt (e.g., sweeping motion with right arm from left to right overhead) to garner youth attention quickly, give directions, and reduce transition time.

Functions of an explicit instruction. The term teaching functions refers to the teaching behaviors that occur during lessons designed to move youth from lack of mastery to mastery. Researchers found that youth achieved more when staff emphasized five teaching functions during lessons (e.g., Rosenshine & Stevens, 1986): (a) daily review and prerequisite skill check, (b) teaching of new content, (c) guided youth practice, (d) independent youth practice, and (e) weekly and monthly reviews. Researchers have found that these five teaching functions accounted for 22% and 18% of the variance in the gains in basic reading skills and passage comprehension, respectively, of middle school youth with reading difficulties (Benner, Nelson, Stage, & Ralston, 2011). In other words, these teaching functions made a significant difference in youth responsiveness to secondary and tertiary prevention of reading difficulties (tiers II/III).

The first function in explicit instructional lessons includes two activities: daily review and prerequisite skill check. Daily reviews provide a clear indicator of the extent to which youth have mastered the previously learned content. After the review, staff should determine if youth have the prerequisite skills necessary to master the new content.

The second function in explicit instructional lessons is the teaching of new content. The goal is to provide explicit instruction that allows the youth to gain mastery of the new content and avoid remedial instruction. Effective staff present relatively small amounts of content at a time and they ensure each concept is mastered by youth before they introduce the next. Staff should present new information

by giving a series of short presentations with many examples. The examples make the learning concrete and help youth to understand the new information. Effective staff spend around 50% to 60% of a lesson teaching new content through demonstrations, discussions, and lectures; whereas, the least effective staff spend approximately 25% per lesson on the same activities (Evertson, Emmer, & Brophy, 1980).

The third function in explicit instructional lessons is guided practice and is designed to bridge the gap between the introduction of new content and independent practice. This function in the explicit instructional lesson allows youth to practice the content they learned under staff supervision to prevent the development of consistent error patterns. The guided practice should be designed to practice the new content and re-teaching the content immediately if errors occur. Youth demonstrate their understanding of the content when they experience high rates of success without prompting or modeling by the staff. Although there is no set standard, youth success rate should be 80% or higher before moving onto independent practice.

The fourth function in explicit instructional lessons is independent practice. Independent practice is designed to help youth consolidate their mastery of the content. Regardless of the type of practice, it is important for youth to understand the purpose for practice. Youth should achieve a 95% or higher success rate.

The fifth function in explicit instruction lessons includes weekly and monthly reviews of the content that has been taught. Approximately 15-20% of instruction time each week should be devoted to weekly and monthly review. The regular review of content ensures that the content is not forgotten and supports the mastery to automaticity principle. Weekly mastery tests are one way staff can conduct weekly reviews. These tests not only provide youth an opportunity to practice, but enable the staff to measure youth progress and identify the amount of content being retained.

Intensive language intervention. Up to 90% of youth with E/BD have concomitant language ability deficits that worsen over time and negatively influence their academic performance (e.g., Goran & Gage, 2011). Benner, Mattison, Nelson, and Ralston (2009) found that nearly two out of three youth with E/BD experienced a language disorder. Successful language acquisition is a prerequisite for successful reading acquisition and academic success (Catts, Adolf, & Ellis Weismer, 2006). Thus, the most appropriate tertiary (tier III) academic intervention for a youth with E/BD may actually be one that targets foundational language skills. In their best evidence, synthesis of the reading intervention literature on youth with E/BD, Benner et al. (2010) concluded that supplementing primary prevention (tier I) or core

instruction with well-targeted supplemental phonological aware-
ness interventions is supported by high-quality replicated research
(e.g., Lane, Fletcher, Carter, Dejud, & DeLorenzo, 2007). These sup-
plementary interventions took place early in the children's school-
ing (i.e., K-1) and focused on identifying, manipulating and produc-
ing sounds. Youth with or at-risk of E/BD need early intervention
focused on phonologic and other language abilities.

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