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Position Paper on Closing Achievement Gaps: February, 2016

School Psychologists are scientists in the field of education, with expertise in the assessment of learning and the use of scientific practices to improve student outcomes. In Wisconsin, school psychologists are required to hold at least an Educational Specialist level of training, with over 30 credit hours of Post-Master's supervised practice. There are about 1,000 licensed school psychologists in our state. Our expertise with school improvement gives us a perspective focused on positive systems change rather than focusing on fault finding and political agendas. We are deeply committed to school improvement, in particular through the implementation of Multi-Tiered Systems of Support (sometimes referred to as Response to Intervention or RtI), an area in which we hold particular expertise.

Introduction

Achievement gaps are defined as differences in levels of achievement between groups of students. While some might argue that these differences are inevitable, most policymakers and education professionals view gaps as a serious problem. This perspective is based on a belief that no group of students should consistently score well below other groups. As reported in the popular press, Wisconsin's achievement gaps for students of color, students from low income families, and students with disabilities have persisted for decades and are now among the worst in the nation (WI Public Radio, 10/28/15). This position paper will briefly share perspectives on the origin, level, and opportunities for remediation of achievement gaps in Wisconsin students.

Why Do Achievement Gaps Occur? Poverty, Dialect, Trauma

In a presentation at the WSPA fall 2015 conference, UW-Madison neuroscientist and noted reading researcher, Dr. Mark Seidenberg, attributed gaps primarily to two common causes: dialect and poverty. He suggested that students who grow up in homes where Standard English is not the primary language essentially need to learn a new language for school. This takes time and causes some children to learn at a slower rate, thus creating an achievement gap. Children from poverty struggle with additional barriers to learning that are obvious: nutrition, housing, and adequate clothing. They are also often burdened with a lack of exposure to language, thereby inhibiting the growth of neural networks in their brains necessary for processing spoken language and then written language. Additional causes for slower academic growth include trauma and community risk factors like lead exposure as we have heard about in recent news. On a positive note, research suggests that high-quality instruction is highly effective in preventing and remediating achievement gaps. For more information see Seidenberg, M. S. (2013).

How Can Achievement Gaps be Prevented? High Quality Teaching

The first step in any large-scale change effort is to prevent future occurrences of the issue you are attempting to resolve. The clear answers for prevention of achievement gaps are effective core curricula with valid and reliable assessments, differentiated instruction, and collaboration among highly-skilled professionals (Hattie, 2009).

Classrooms are composed of students with varying learning strengths and challenges. As such, “a one-size fits all” delivery of instruction is not likely to meet the needs of all students. Teachers need access to a quality curriculum that is aligned with standards and preparation or mentoring in applying the curriculum with integrity. When all teachers use quick assessments that are correlated with defined learning targets, it is easy to identify students who need additional support before they lag too far behind. (Wilcox, *et al*, 2013).

Educators can help ensure access to instruction through differentiation: flexibility in the way information is presented by classroom teachers and the way students are assessed on their knowledge and understanding of the subject matter. Providing multiple means of representation (the “what” of learning), of action and expression (the “how” of learning), and of engagement (the “why” of learning) reduces barriers while providing both support and appropriate challenge. Collaboration is also an essential element for prevention to work (Rose, Meyer, & Hitchcock, 2005). Teachers and support staff work together to determine the most effective differentiation strategies for specific classroom populations. However, once a gap has been established, the hard work of intervention must begin.

How Can Gaps be Closed? Step 1: Supplemental Interventions

John Hattie’s meta-analysis of practices that impact achievement now allows the field of education to move from doing “what works,” to doing “what works well;” insuring that more students are able to achieve at high levels. One of the most effective strategies identified by Hattie is called Response to Intervention (Hattie, 2013).

Achievement gaps exist for any student who is struggling to keep pace with his or her same grade peers. For students experiencing difficulties in meeting proficiency standards despite differentiation of core instruction, supplemental instruction or intervention may be necessary to achieve grade level, academic success. The critical elements that impact the effectiveness of interventions are: explicit and systematic instruction (Gersten et al., 2009; Graham, et al., 2012; Kavale, 2007) at an appropriate instructional level (Burns, 2004), with ample practice and feedback (Hattie & Timperley, 2007) that is provided in addition to the core curriculum. Students are most likely to respond successfully to intervention when the intervention chosen is matched to their specific need based on their stage of learning (Burns, Riley-Tillman, & Vanderheyden, 2012).

Current research indicates that when interventions are matched to student need and provided with integrity, the large majority of students respond positively (Vanderheyden & Tilly, 2010). The intervention needs to focus on a small targeted set of skills with ongoing monitoring of student progress using reliable and valid outcome measures of the skill targeted for intervention. In order to close the gap, ambitious goals that exceed typical rates of improvement for the grade level are developed. Periodic reviews of the data inform teachers whether the student is making sufficient progress or whether changes to the intervention plan are warranted.

How Can Gaps be Closed? Step 2: Intensive Interventions

School data teams are often charged with generating solutions for the few students who do not respond successfully to small group interventions. There are multiple reasons for possible resistance to the small group supplemental interventions already in place: lack of attendance, lack of integrity with the delivery of supplemental instruction, motivation or behavioral issues, or the student is struggling in multiple academic areas simultaneously. Research-based programs have been validated with groups of students, but they do not work with all students. Systems in which the needs, data, and observations of students who are resistant to initial supplemental intervention are reviewed by a multidisciplinary team who can view the students' issues from a variety of perspectives and generate a more comprehensive list of possible solutions. The ultimate goal is to develop an intensified system of support that is individualized to the student's needs (Burns, Riley-Tillman, & Vanderheyden, 2012). Increasing the intensity of an intervention plan can come in many forms, including changing the intervention materials used, increasing the time a student receives intervention, embedding components of the intervention into portions of the universal instruction in addition to the intervention time block, and layering supports for increasing motivation and engagement. Ongoing progress monitoring data will indicate whether the efforts at intensifying the intervention plan results in improved outcomes.

Guiding Principle: Culturally and Linguistically Diverse Practices

The RtI framework focuses on strong core instruction, with increasing levels of support targeted to specific academic or behavioral needs. High expectations for all students are blended with a value and respect of culture, language, and experiences to provide the foundation of culturally and linguistically responsive practices (CLRP; Klinger et al., 2005; Ladson-Billings, 1995). Less a set of specific practices, but rather guiding principles and beliefs, CLRP emphasize viewing culture and language as assets to build upon in the classroom. By incorporating students' backgrounds and skills into learning, teachers make connections, build relationships, and develop knowledge that allows all students to respond successfully to instruction in meaningful ways.

Closing the achievement gap requires strong core instruction with intensified, targeted supports that value and incorporate language and culture of students to promote success for all. CLRP should include training and professional development to all staff members to create structures that meet the cultural needs of all students, families, and educators in the school.

Working Examples

Since the early 2000's, the State of Florida has engaged in continuous efforts to use systematic problem-solving and the RtI framework. In June of 2008, The Florida Department of Education (FDOE) published a Response to Instruction/Intervention (RtI) Implementation Plan, which provided the initial, formal, state-level framework to assist districts with critical components, definitions and applications to support the development of school-wide implementations. And, since 1998, Florida's 4th Grade NAEP Reading scores have risen from about 205 points to over 225 points in 2013 taking their state rank from about 35th to top 10. Achievement gaps for students of color, students from low-income households, and students with disabilities have been markedly reduced. Some educators argue that Florida's retention policies have played a major part in these advances.

The evidence supporting the overall use of RtI, more recently known as a “Multi-Tiered System of Supports” (MTSS), has been accumulating and has now been the subject of numerous meta-analyses based on the many studies of effects of RtI implementation. Burns, Appleton, and Stehouwer, in a 2005 meta-analysis using 21 studies, investigated system improvements like reduced special education placements as well as improved student achievement outcomes. They found that sites implementing RtI had significant effect sizes (Unbiased Estimate of Effect or UEE>1.0) in both areas. With regard to special education, they identified a placement rate of less than 2% of the population at a time when the national placement rate was 5.7%. Student achievement outcomes improved substantially in these RTI systems as well.

Hughes and Dexter (n.d.) reviewed research on the effectiveness of RtI models, examining 16 peer-reviewed studies including more than 3000 students. They conclude, “All of the studies examining the impact of an RTI program on academic achievement or performance resulted in some level of improvement, and the authors attributed the changes to the RTI approach they used.”

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