Chapter 10

Technology for Multi-Tiered Interventions for Reading and Behavior in Early Childhood Education

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ABSTRACT

This chapter will describe how multiple tiers of increasingly intensive interventions function as early intervening services and how technology can aid in the implementation of multi-tiered interventions. Children who display consistent inappropriate behavior or academic performance, below their peers or benchmark while receiving primary supports, need a secondary intervention that is more focused and intense to reduce problem behavior and remediate the academic deficit and increase appropriate behavior and learning.

INTRODUCTION: CHALLENGES

"Day after school day, having to police and discipline students, not being allowed to teach without interruption, not being given the resources to do the job right or well, these all play on a teacher's attitude toward the job" J. Ellen Fedder (2009).

Teaching has become a highly complex career with pressures from accountability demands, low domain specific test scores, loss of autonomy in teaching decisions, and the increasing prevalence

of behavior problems in classrooms. It can be difficult for the early childhood teacher to respond to the needs of children when there are one or two children having behavior issues. The challenge is further compounded with new demands for literacy acquisition in the early years. Preschoolers who display maladaptive behaviors that do not receive any intervention are more likely to develop emotional and behavioral disorders later in life (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002; Abbott-Shim, Lambert & McCarty, 2003).

Influence of Behavior on Reading

The future outcomes for these children who display academic and behavioral needs that require additional specialized interventions are not promising (Heward, 2009). Children who can read proficiently in primary grades are prepared to face the future academic challenges in schools and most stay proficient readers. Students who are poor readers early in their schooling often remain poor readers for life (Juel, 1988). It is estimated that 65% to 75% of children with reading disabilities in early grades never become skilled readers (Scarborough, 2001). Moreover, children who do not learn to read by third grade are at-risk for identification for special education services (Whitehurst & Lonigan, 2001). In the United States, it is estimated that 90% of students with learning disabilities are referred for special education services based on reading deficits (Kavale & Forness, 2000).

Children who display behavioral deficits also have similar outcomes. An estimated average of 30% of preschool children from low socio-economic backgrounds exhibit challenging behavior (Qi & Kaiser, 2003). Children that exhibit challenging behavior are more likely to have their attendance adjusted (i.e., changed from full day to half-day or have parental attendance mandated) or be suspended or expelled form early childhood settings. Problem behavior begun in early child-

hood will likely carry over to Kindergarten and higher grades and also adversely affects children's academic performance (Campbell, 1995; Egeland, Kalkoske, Gottesman, & Erickson, 1990; Abbott-Shim, Lambert & McKarty, 2003; Lavigne et al., 2001; NICHD Early Childhood Research Network, 2003; Pierce, Ewing & Campbell, 1999; Shaw, Gilliom & Giovannelli, 2000). In addition to the number of students suspended or expelled, students exhibiting conduct problems are more likely to be identified for special education services (Heward, 2009).

Identifying effective and efficient methods for treating disruptive behavior is important to early childhood educators. According to research for almost a decade many teachers feel that they are not prepared to deal with high intensity problem behavior, nor do they feel they are prepared to teach students with disabilities in the general education setting manage with the challenges that come with inclusion (e.g., co-teaching, IEPs, behavior management, etc.) (Biddle, 2006; Idol, 2006; Kaufmann & Wischmann, 1999). Efforts are being made to address the academic and behavioral needs of all children in the classroom prior to pulling students out of the classroom for additional support or referring the child for evaluation to determine if a disability exists. Part of the effort involves early intervening when problems are identified. This step is critical in preventing a disability or reducing the impact of a disability. Multi-component interventions, such as school wide positive behavior support (SWPBS) and response to intervention (RTI), implemented over time across multiple relevant environments can produce durable generalized increases in pro-social behavior and learning and decreases in challenging behavior and academic deficits. This chapter will describe how multiple tiers of increasingly intensive interventions function as early intervening services and how technology can aid in the implementation of multi-tiered interventions.

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