HANDS in Autism® Model

The HANDS in Autism® Interdisciplinary Training and Resource Center was developed in 2004 with foundational support from the Centers for Disease Control (CDC) to extend outreach and training offered from the Indiana University School of Medicine across settings and communities (Fig. 1). The HANDS in Autism® Model introduces core issues in the needs and supporting students with disabilities by providing an innovative, research-based, interactive hands-on learning process to enable skill development and implementation while serving to bridge a number of community systems in their shared responsibility to support student outcomes. Though the model fosters an emphasis on ASD, the practices and procedures are well-documented and have been utilized with demonstrated benefit across a wide range of settings (e.g., preschool through high school, high minority schools with high need students and across students with a range of disabilities, across disabilities as well as developmental and cognitive capacities). The interdisciplinary composition of the HANDS Team allows for diverse perspectives and expertise in supporting professionals and families. In addition, the HANDS Team has proficiency in providing support and training across all levels of academic, behavioral, and functional programming thus impacting all students with disabilities as noted previously.

The HANDS in Autism® Model (Fig 2) consists of a hands-on learning process in the naturalistic education setting comprised of curriculum rooted in Applied Behavior Analysis (ABA) with a focus on data-driven decision making and evidence-based practices (EBPs). With recognition that no one intervention or strategy is equally effective with all individuals, the HANDS Model offers professionals a comprehensive set of strategies with embedded emphasis on support for use with individuals with disabilities. The specific curriculum content and delivery of the HANDS Model is novel in its approach with specific alignment to the following core beliefs: (1) Student strength-driven: a focus upon building strengths and successes of individuals with an emphasis on proactive planning and teaching practical skills (Iovannone, Donloup, Huber, & Kincad, 2003; National Research Council (NRC), 2001; (2) Collaborative: delivery across community stakeholders for consistency, coordination, and positive collaboration for students with disabilities (Baker et al., 2003; Interagency Autism Coordinating Committee, 2005; Swiezy, Stuart, & Karzicka, 2008); (3) Data-driven: a relationship to data-driven decision making across settings to affect best outcomes through systematic planning and individualization of instructional materials (Iovannone et al., 2001; NRC, 2001); (4) Scientifically informed: a bias from current research in special education, psychology, and related fields with relevance to ASD and other DD with a focus on the practical and effective blending of scientifically-based strategies (Homeier, Carr, Storrs, Todd, & Reed, 2002); (5) Interactive: an incorporation of implementation and systems training research that indicate the need to appeal to varied learning styles (Friesen, Nnoom, Blase, Friedman, & Wallace, 2005) and the need for more interactive strategies to ensure usage in naturalistic settings (McClannahan, & Krantz, 1993; Joyce & Shower, 2002); (6) Practical and accessible: delivery through accessible materials, training, technology, and consultative staff in efforts to decrease barriers, increase support, and improve implementation and utilization of the strategies taught, and (7) Process-driven: an infusion with a fluid and integrated process for effectively educating all students by incorporating data-driven strategies, research-based methods, collaboration and individualized needs to develop effective programming (Iovannone et al., 2003; Kazdin, 2001; NRC, 2001). The curriculum inherent within the HANDS Model highlights core elements noted for effective educational practices with focus upon “individualized supports and services”, systematic instruction, comprehensive curriculum, and (a) functional approach to problem behavior and family involvement” (Welt, Drasgow, & Lowery, 2005) with additional emphasis in regards to effective implementation.

Making Data Practical and Effective

Making data practical and effective is essential to ensure ongoing data-driven decision-making that addresses academic, behavioral, and functional performance and ensures that progress is noted towards defined behavioral and academic goals is monitored. Such monitoring informs instruction, intervention, and generalization while also providing information to drive decisions related to adaptations, learning activities, and instructional supports to promote student independence.

To be effective, selection of appropriate data methods as well as the ongoing data collection, analyses, visual representation and utilization in decision-making processes needs to be practical and applicable to the needs of the students and capacity of the classroom and school. Students with developmental disabilities, such as ASD, demonstrate a number of cognitive, academic, communication, functional, behavioral, and social challenges that preclude inclusion and prohibit adequate progression and opportunity across settings.

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