



GEM OF THE MONTH



Highlighting an exemplary intervention study



Randomized, controlled trial of the LEAP model of early intervention for young children with autism spectrum disorders.

A clustered randomized design was used to measure the effect of the LEAP (Learning Experiences and Alternative Program for Preschoolers and Their Parents) curriculum when teachers received ongoing, full implementation support, compared to teachers who only used training manuals. Twenty-eight inclusive preschool classrooms were randomly assigned to receive 2 years of training and coaching to fidelity in the preschool model, and 28 inclusive classes were assigned to receive intervention manuals only. In total, 177 intervention classroom children and 117 comparison classroom children participated. After two years, children in the experimental classes made significantly greater improvement on measures of cognitive, language, social, problem behavior, and autism symptoms. Behavior at entry did not predict outcome nor did family socioeconomic status. The fidelity with which teachers implemented LEAP strategies did predict outcomes. Finally, social validity measurement showed that procedures and outcomes were favorably viewed by intervention class teachers.

Strain, P. S., & Bovey, E. H. (2011). Randomized, controlled trial of the LEAP model of early intervention for young children with autism spectrum disorders. *Topics in Early Childhood Special Education, 31*(3), 133-154.

Advancing Knowledge to Bridge the Word Gap

If evidence-based practices are to be used outside the context of rigorous research, we must understand what is needed for teachers to implement at high fidelity, and to sustain fidelity. This study advances knowledge by focusing on the effect of training and follow-up on teachers' fidelity in using the LEAP curriculum, and subsequent effects on key child outcomes. The rigorous methods and rich description of implementation support represent a model for other early childhood implementation studies.

Meet the First Author

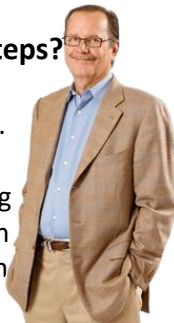
Phil Strain, University of Colorado Denver

Why did you do this study?

Phil: This study was launched a little over 25 years after the LEAP model was developed. Prior to this we had conducted 30 single case experimental studies to demonstrate the effects of specific program components (e.g., peer-mediated social skills training and language instruction, group individualized instruction, parent skill training) on child and family outcomes. Additionally, we had launched a randomized trial comparing LEAP to an available community alternative but large differences in outcomes after one year necessitated the termination of random assignment for ethical reasons. Frankly, it took a quarter of a century to figure out how to conduct a "Gold Standard" randomized trials that would not raise the same ethical concerns.

How is this study informing your next research steps?

Phil: Given the results of this RCT we were able to obtain funds to do a 4-yr follow up study (Strain,2017). While LEAP graduates continued to do better than comparison program graduates the really major finding was that the effects of the LEAP preschool intervention were profoundly influenced by continued placement in typical classes.



Commentary by the Nominator

Jay Buzhardt, University of Kansas

For the Bridging the Word Gap's Implementation Work Group, this study stands out among other rigorous randomized controlled trials (RCTs) because both the comparison and experimental groups had full access to the evidence-based LEAP program, allowing for a pure analysis of implementation support across a two-year period. Also, the authors clearly described the type of training and coaching teachers received in both groups. All too often, intense support for implementing evidence-based practices is provided during efficacy trials, but then that support is not available when the practice is used outside of a well-funded study. This paper not only demonstrated the importance of implementation support in sustaining LEAP fidelity, but that this support is very much an 'active ingredient' in this evidence-based curriculum.