Adapting assessments of child engagement to develop an early childhood consultation model☆

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ABSTRACT

This study examines the psychometric properties and utility of the Individualized Classroom Assessment Scoring System (inCLASS) and the Adjustment Scales for Preschool Intervention (ASPI) after they were adapted for use by consultants and teachers as part of the development of a new early childhood consultation model called Learning to Objectively Observe Kids (LOOK). Pilot data examined whether the adapted inCLASS and ASPI scales retained aspects of reliability and validity comparable to the research-validated scales. Data provided evidence that consultants used the inCLASS and ASPI scales to guide their consultation. Findings from two consultants, 22 Head Start teachers, and 71 preschool children indicated that the inCLASS and ASPI scales evidenced adequate reliability and validity as compared to the research scales. Findings suggested that LOOK consultants used data to individualize the consultation sequence. Results provide support for the promise of applying research measures of child engagement to practice in teacher consultation models.

"High energy", "acts without thinking", and "throws tantrums" are phrases that accurately characterize almost all preschool children's behavior at some time or another. However, for a subset of children, adults report the display of these behaviors at home and/or at child-care/preschool at levels that significantly impair child, family, and/or classroom functioning (Egger & Angold, 2006; Williford & Shelton, 2014). Children reported by their teachers to display disruptive behaviors have been observed to engage less positively with teachers, peers, and tasks (Bierman, Torres, Domitrovich, Welsh, & Gest, 2009; Friedman-Krauss, Raver, Morris, & Jones, 2014; Ursache, Blair, & Raver, 2012; Wyman et al., 2010). These behaviors prevent children from fully engaging in learning opportunities and are challenging for teachers to manage (Graziano et al., 2015). Although effective intervention strategies for use in preschool classrooms exist, teachers often do not have access to these interventions, or they lack support to implement them successfully (Hemmeter, Corso, & Cheatham, 2006; Reinke et al., 2014).

Early childhood teacher consultation (or practice-based coaching) is a promising, evidence-based model to increase teachers' implementation of effective, proactive social-emotional and behavioral strategies

that help children to fully engage in the classroom (Raver et al., 2009; Virmani, Masyn, Thompson, Conners-Burrow, & Mansell, 2012; Williford & Shelton, 2008). Current consultation models may benefit from increasing teachers' knowledge and skills to observe child behavior within context and their understanding of how strategy implementation changes children's classroom engagement. We developed the Learning to Objectively Observe Kids (LOOK) consultation model to increase teachers' understanding of the connection between their practice and a child's engagement for children who display challenging behaviors.

This paper describes how we leveraged and adapted two previously validated, contextual-focused research measures of children's positive and negative engagement within the preschool setting. The *individualized Classroom Assessment Scoring System* (inCLASS; Downer, Booren, Lima, Luckner, & Pianta, 2010; Downer, Booren, Hamre, Pianta, & Williford, 2011) and the *Adjustment Scales for Preschool Intervention* (ASPI; Bulotsky-Shearer, Fantuzzo, & McDermott, 2008) were used to design the LOOK consultation model so that teachers would have repeated opportunities to observe and analyze the connection between teacher practice and child engagement. We asked: 1) What is

the extent to which the adapted inCLASS and ASPI scales retain aspects of reliability and validity when used by practitioners as compared to the research-validated scales? and 2) To what extent do our pilot data provide preliminary evidence to suggest that consultants used the adapted inCLASS and ASPI scales to drive the consultation process?

1. Early disruptive behavior predicts negative child outcomes

A significant proportion of children, with estimates ranging from 10 to 30% (with higher rates for children who experience poverty) are reported by their parents or teachers to exhibit significant levels of disruptive or challenging behaviors at home or at preschool/childcare (Egger & Angold, 2006; Qi & Kaiser, 2003). In terms of classroom engagement—or children's capacity to interact with different aspects of the school environment, including teacher, peers, *and* activities (Fredricks, Blumenfeld, & Paris, 2004)—children displaying disruptive behaviors show decreased engagement compared to their peers. This includes less close and more conflictual relationships and interactions with teachers (e.g., Graziano et al., 2015; Portilla, Ballard, Adler, Boyce, & Obradović, 2014), more negative interactions with their peers (e.g., Ramani, Brownell, & Campbell, 2010; Ursache et al., 2012), and less engagement with learning tasks and activities (e.g., Bulotsky-Shearer, Fernandez, Dominguez, & Rouse, 2011; Cadima, Doumen, Verschueren, & Buyse, 2015).

Children's classroom engagement with teachers, peers, and learning activities is a key mechanism by which children develop readiness skills. The ways in which a child engages and interacts in the classroom depends in part on the kinds of opportunities and experiences afforded to the child in the classroom. Teachers set up their classroom environment and orchestrate activities that create opportunities for children to engage with individuals and tasks (Friedman-Krauss et al., 2014; Vitiello, Booren, Downer, & Williford, 2012). Children's negative engagement in the classroom places them at risk for increased problem behaviors, decreased academic and social skills, and school disengagement in the short and long term (Bierman et al., 2009; Buhs, Ladd, & Herald, 2006; Mantzicopoulos, 2005; Stipek & Miles, 2008). Longer term, these children are at significant risk for academic underachievement, grade retention, placement in special education services, and school dropout (Bierman et al., 2013). Early childhood teachers identify addressing challenging behaviors as the area in which they most need additional training (Hemmeter et al., 2006; Reinke et al., 2014). Thus, the deflection of children's negative trajectories through prevention and early intervention is of considerable importance for the individuals affected and for schools and communities (Kazdin & Weisz, 2003).

2. Teacher consultation is a promising approach to supporting young children

Individualized teacher consultation is an effective core support to help teachers improve outcomes for children by effectively implementing pro-active, evidence-based social-emotional and behavioral strategies (Duran et al., 2009; Raver et al., 2009; Snyder, Hemmeter, & Fox, 2015; Williford & Shelton, 2008). Early childhood mental health consultation involves a collaborative partnership between a health care professional and an early childhood teacher. Best practice models include a focus on observing the child to determine which behaviors to target (often focusing on replacing negative behaviors with pro-social behaviors), creating a behavior support plan, and working with the teacher to ensure effective implementation of the plan (Conroy, Sutherland, Vo, Carr, & Ogston, 2014). However, consultation models do not place clear enough emphasis on increasing teachers' own understanding of how (a) children's challenging behaviors and classroom engagement are contingent upon context, (b) teachers play a role as the primary agent of change within the classroom, (c) a child's engagement in the classroom should guide the selection of evidence-based social-

emotional and behavioral strategies, and (d) use of those strategies in the classroom improves the child's engagement with teachers, peers, and/or tasks. As a result, teachers may benefit while participating in consultation but may not learn key skills needed to support these or similar children when consultation is no longer provided. To address these gaps, we developed the LOOK consultation model, which focuses on using observation to increase teachers' own understanding of the interplay between children's engagement, the classroom context, and teachers' use of evidence-based social-emotional strategies.

3. Contextual measures used to inform LOOK

To guide teachers' observation of children's behavior in context, LOOK was developed through leveraging prior work with two assessment instruments – the inCLASS (Downer et al., 2011) and the ASPI (Lutz, Fantuzzo, & McDermott, 2002). Both assess a child's behavioral engagement across routine preschool learning and social contexts. The measures complement one another in source, method, and construct. The inCLASS is a direct observation that focuses on children's positive and negative engagement with teachers, peers, and tasks and activities in the classroom. The ASPI is a teacher rating scale that describes children's observable behavior within everyday classroom situations as they engage with teachers, peers, and tasks. Both measures are grounded in a child-centered, developmental approach and focus on adaptive and challenging child behavior across classroom situations (e.g., structured learning activities, peer interactions, and teacher interactions), rather than deficiencies "diagnosed" out of context.

Both the inCLASS and the ASPI have a strong, recent track record of capturing relevant information about preschoolers. Children's observed engagement with teachers, peers, and tasks, as measured by the inCLASS, is concurrently and predictively associated with improvements in self-regulation, language, and literacy outcomes during preschool (Sabol et al., 2017; Vitiello, Downer, & Williford, 2011; Williford, Maier, Downer, Pianta, & Howes, 2013; Williford, Whittaker, Vitiello, & Downer, 2013). In addition, children's positive task engagement mediated the relationships between self-regulation and social skills and children's academic readiness skills (Bohlmann & Downer, 2016; Vitiello & Williford, 2016). With respect to the ASPI, a series of studies have validated the associations between teacher-reported negative engagement with teachers and peers and peer social competence and emotion regulation (Bulotsky-Shearer et al., 2008; Bulotsky-Shearer, Domínguez, Bell, Rouse, & Fantuzzo, 2010). Studies also show the associations between ASPI negative engagement within learning situations and literacy, mathematics, and approaches to learning in preschool (Bulotsky-Shearer et al., 2011), and language and literacy achievement in kindergarten and first grade (Bulotsky-Shearer & Fantuzzo, 2011).

These classroom measures have been successfully developed and validated for research purposes. Because of their unique contextual focus, we used these measures as the starting point for developing a consultation model that had an explicit focus on using observation (both those of a consultant and those of the teacher) to help *teachers* better understand *how* what they do relates to children's engagement in the preschool setting. In this paper, we contribute to the research literature on evidence-based early childhood interventions by describing how two well-validated research measures were used to develop LOOK. Accordingly, we examine the reliability, validity and utility of these adapted measures to determine if they still evidenced appropriate psychometric properties. Below, we briefly describe the LOOK intervention components with a particular focus on how the assessment tools are incorporated into the model (for a full description of the intervention see AUTHORS et al., 2017).

4. LOOK consultation components

The LOOK consultation model involves an ongoing, collaborative