



Early childhood social and emotional development: Advancing the field of measurement



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ABSTRACT

This paper frames the subject of this special issue – how the field currently measures social and emotional development in early childhood. We first describe the relationship of social and emotional development to child functioning and overall well-being, and then present major measurement challenges associated with this domain, including a lack of clarity around conceptualizations of the subdomains of social and emotional development, and issues tied to quality and ease of use for extant measures. In describing the multiple purposes of early childhood assessment more broadly, the reciprocal dynamic between programs, policymakers, researchers, and developers in generating knowledge, guidance for practitioners, and policy is highlighted. We close with an overview of the remaining articles in this issue, and underscore the need for the field to come to agreement on sound conceptual and methodological approaches to measuring young children's social and emotional development.

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This special issue is intended to propel the field concerned with measurement of child social and emotional development forward by encouraging ongoing validation and refinement of extant measures, and development of new measures. This goal is rooted in a growing understanding of the inter-relationship between subdomains of social and emotional development, and the key components that should be measured within these subdomains. Better measurement is fundamental to the widely held goal of understanding the association of young children's social and emotional competencies with school readiness, and how these competencies support children's overall development as they move to middle childhood and beyond.

The work presented here moves beyond the scope of an initial project between Child Trends and the Federal Interagency Forum on Child and Family Statistics (the Forum) ([Federal Interagency Forum on Child & Family Statistics, 2015](#)). This special issue provides a review of key literature and considerations related to understanding and assessing subdomains of social and emotional development in young children. Next, a summary of extant measures of early childhood social and emotional development and a rubric developed for evaluating the characteristics of these measures are presented. Then, academic experts provide commentaries on considerations specific to the various subdomains of social and emotional development. In closing, we identify strengths and gaps in the measurement of social and emotional

functioning, and where there is consensus – or a lack thereof – in approaches to defining and measuring aspects of social and emotional development in young children. Our hope is that this issue will be a useful guide for those concerned with what constitutes high-quality measurement, as well as a resource directing readers to measures that fulfill specific criteria.

Overview of early social and emotional development

For the purposes of this issue, we define early social and emotional development as the emerging ability of young children (ages 0–5) to “form close and secure adult and peer relationships; experience, regulate, and express emotions in socially and culturally appropriate ways; and explore the environment and learn – all in the context of family, community, and culture” (Yates et al., 2008, p. 2). Among the many foundational social and emotional skills and characteristics, researchers consistently include in their work emotion expression and management, perspective taking, empathy, inhibitory control, self-confidence, and the ability to develop and support relationships with others (Denham, 2006; National Scientific Council on the Developing Child, 2007; Yoder, 2014).

Relationship of social and emotional development to child functioning and well-being

Research and practice around understanding and supporting young children's social and emotional development have been in existence for

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decades. That said, social and emotional competencies are increasingly recognized as critical for children's success, in school as well as in other settings, and in later phases of life into adulthood (National Education Goals Panel, 1995; Thompson & Lagattuta, 2006). Child development specialists across multiple disciplines (e.g., education, medicine, child welfare) acknowledge the importance of positive social and emotional development to overall child well-being and the subject continues to gain prominence in public discourse (American Academy of Pediatrics, n.d.; Cooper, Masi, & Vick, 2009; Isakson, Higgins, Davidson, & Cooper, 2009).

Social and emotional experiences with primary caregivers as well as interactions with other children and adults early in life set the stage for future academic and personal outcomes, and undergird other areas of development (Denham, 2006; Denham & Brown, 2010; Konold & Pianta, 2005; National Research Council & Institute of Medicine, 2000). As children develop social and emotional skills, they gain the confidence and competence needed to build relationships, problem-solve, and cope with emotions (National Research Council & Institute of Medicine, 2000; Parlakian, 2003). Social and emotional competencies as they relate to school readiness have gained enormous attention. Research indicates that social skills and accompanying *process skills* (e.g., attention and approaches to learning) evident at school entry (i.e. by about age 5) are the best predictors of later social and emotional *competencies*, such as managing behavior, making social connections, and tolerating frustration with peers (Blair & Diamond, 2008; Halle, Hair, Burchinal, Anderson, & Zaslow, 2012; Herbert-Myers, Guttentag, Swank, Smith, & Landry, 2006; Konold & Pianta, 2005). Social and emotional competencies also often uniquely predict academic achievement, even when other factors such as earlier academic success are taken into account (Denham, 2006; Jacobsen & Hoffman, 1997; Pianta, Steinberg, & Rollins, 1995; Shields et al., 2001; Zins, Bloodworth, Weissberg, & Walberg, 2004). In addition, children with greater self-control (an aspect of self-regulation) are more likely to grow into adults with better health (e.g., better physical health, less substance abuse), have higher incomes and fewer financial struggles, and fewer criminal convictions than those with weaker self-regulatory skills (Moffitt et al., 2011).

Conversely, maladjustment in the social and emotional domain may impede children's ability to function in family, school, or other contexts (Campbell, 2006). Failure to develop secure attachments with caregivers may lead to later difficulties communicating or managing emotions, or developing positive relationships with peers (Sroufe, 2005). Emotional or behavioral problems in young children are linked to health and behavioral problems in adolescence, including school dropout and juvenile delinquency (Brauner & Stephens, 2006). Persistent behavior problems extending beyond what is considered appropriate for a child's age and development are risk factors for both externalizing and internalizing disorders (National Research Council & Institute of Medicine, 2009). Finally, certain social and emotional problems such as anxiety and depression also negatively predict later academic achievement (Romano, Babchishin, Pagani, & Kohen, 2010).

The advancement of knowledge around the importance of early childhood social and emotional development has brought with it a variety of informational and child-serving program accountability tools. For example, parenting resources abound for supporting early attachment, language development, and positive discipline approaches where-in parents model emotion management and problem solving skills for their children. Early childhood program standards (e.g., National Association for the Education of Young Children & National Association of Early Childhood Specialists in State Departments of Education, 2003),¹ almost universally convey expectations for programs supporting the development of social and emotional competencies (Council of Chief State School Officers, n.d.; Smith, 2008). School-age standards are beginning to incorporate similar expectations (Collaborative for Academic

Social & Emotional Learning (CASEL), n.d.; National School Climate Center, n.d.).

The growing body of research linking assessments of social and emotional competencies to child outcomes, and involving the use of these assessments to inform practice and intervention (Bredenkamp, Knuth, Kunesh, & Shulman, 1992; National Scientific Council on the Developing Child, 2007), provides accumulating evidence that when young children are able to develop prosocial relationships, feel confident in themselves, and express and manage their emotions, they are more likely to be prepared to learn and succeed in school (Raver, 2002). However, despite this preponderance of evidence, the development of psychometrically valid measures that are aligned for use within assessment and accountability systems has lagged (Hirsh-Pasek, Kochanoff, Newcombe, & de Villiers, 2005; Raver, 2002).

Purposes of assessment

In response to growing accountability requirements in publicly funded programs such as Early Head Start, Head Start, and public pre-kindergarten, the field of study surrounding early childhood assessment is burgeoning (Grisham-Brown, Hallam, & Brookshire, 2006), with greater emphasis on conducting and using the information from assessments than ever before (National Research Council, 2008). For example, state and program-level articulation of early learning standards, or goals for what children should know and be able to do at different points in their development, has led to expectations to document children's progress in light of these standards and to utilize assessments for program planning and evaluation. At the same time, the field of measurement is traversing its own developmental continuum to identify best practices in child assessment. Issues range from how to select appropriate measures across phases of development, to their proper administration and the communication of results to parents and program leadership.

Assessments currently serve several purposes, including documenting children's developmental progress over time to provide a comprehensive picture of their skills and abilities and informing early childhood program delivery (National Association for the Education of Young Children & National Association of Early Childhood Specialists in State Departments of Education, 2003; U.S. Department of Health & Human Services, 2014). In this regard, the National Academy of Sciences (National Research Council, 2008) outlines four broad purposes of assessment in early childhood: 1) Determining an individual child's level of functioning, 2) guiding intervention and instruction, 3) evaluating the performance of a program or society, and 4) advancing knowledge of child development.

Within each of these broad purposes of assessment, more specific goals may be noted. Assessment of individual child functioning may occur to identify problems or risks at the individual or community level, to confirm suspected problems, or to assess the readiness of children entering formal school settings. Assessments also are used to plan activities or to track the progress of children in early care and education settings, either individually or collectively. Aggregated assessment data used to evaluate program performance inform both program effectiveness (to make decisions about how best to strengthen or whether to continue or terminate programs) and program impacts (in comparison to some alternative program or treatment). At the societal level, early childhood assessment can also inform social benchmarking. Finally, assessments are used in basic research designed to advance knowledge of child development. The content of this issue touches upon each of these assessment purposes at least briefly.

Our initial interests were in identifying survey measures suitable for providing a national portrait of young children's social and emotional development, much akin to benchmarking. However, in so doing we became aware of the need to scrutinize the quality of available assessments to determine whether the information they yield is a reliable reflection of social and emotional functioning. In the following section,

¹ For more information, see <http://ectacenter.org/topics/earlylearn/earlylearn.asp>.

we highlight the major issues and challenges that arise when evaluating these assessments.

Issues in measuring social and emotional development in early childhood

There is general consensus within the early childhood field that there are multiple domains of competencies associated with ongoing positive development in early childhood, and that young children's development in multiple domains proceeds asynchronously, yet interdependently (Research Council & Institute of Medicine, 2000). Therefore, many challenges arise in adequately assessing children's competencies over time. The social and emotional domain has been especially challenging from the perspective of measurement. In part, the challenges are conceptual, requiring identification of the constructs within this domain that are most salient during the early as well as later stages of development. Another challenge is to not focus disproportionately on indicators of potential pathology, but on measures of positive development as well (Cabrera, 2013; Campbell, 2016–this issue; VanderVen, 2008). Indeed, problems and strengths do not fall neatly on a single continuum, and the absence of problems does not guarantee the presence of competencies; thus, it is important to measure both.

There are also challenges associated with capturing the competencies of different populations, including children who are dual language learners, have disabilities, and come from diverse cultural traditions. Although such challenges are not exclusive to social and emotional development, they can be particularly difficult in this domain. For example, without language or if children are differently-abled² than other children their age, assessing their social and emotional development may prove more challenging (Division for Early Childhood of the Council for Exceptional Children, 2007; Espinosa & Lopez, 2007). Furthermore, socialization practices that differ across cultural groups can result in corresponding differences in parent–child or peer interactions. From a majority-cultural perspective, these variations can lead to seemingly erroneous conclusions concerning the normalcy of certain behaviors. With the rapid growth in numbers of children of immigrants and children whose home language is not English, there is an increased need for measures of social and emotional development that are sensitive to cultural variations in social behavior and that accurately capture the diversity of children's developing competencies.

There are also methodological challenges, stemming not only from the normal heterogeneity of development at this age, but also from identifying the most appropriate reporter. While also not unique to the social and emotional domain, this matter is a necessary consideration. Many early childhood assessments rely on parent or teacher/caregiver report. However, one threat to the validity of these assessments is lack of correspondence among ratings by parents and non-parental educators/caregivers, who each offer distinct information about the child across different contexts, and a unique relational dynamic between the adult and child. Parents have the benefit of primary, long-term familiarity with their own child, but have fewer points of comparison with other children. On the other hand, early childhood educators, with adequate training and support, can make reliable judgments of children's competence in multiple domains (Halle, Zaslow, Wessel, Moodie, & Darling-Churchill, 2011). However, teachers' perspectives are usually based upon a relationship with the child of shorter duration and assessments are often conducted early in the school year when the teacher does not yet know the child well. While assessments should take into account different viewpoints, utilizing teacher/caregiver reports also poses special

challenges, because of that group's heterogeneity (Martin-McDermott & Fox, 2007).

Considerations when developing and selecting measures

Early childhood researchers and practitioners generally agree that it is equally important to assess social and emotional development as well as other areas of development. However, there is debate regarding how to define the constructs within the domain of social and emotional development, and how to develop and select measures (Epstein, Schweinhart, DeBruin-Parecki, & Robin, 2004; National Research Council, 2008). Some considerations under discussion are related to the quality of the measure (e.g., reliability, validity, and norming sample) whereas other considerations are related to how easily the measure could be used (e.g., time of administration or required training to administer it). Considerations related both to quality and ease of use also include the availability of the measure in languages other than English, who is the designated reporter (e.g., parent, teacher, or trained observer or clinician), which aspects of development are being assessed, the age range covered by the measure, and whether the measure has a cost for use. When selecting measures for use by programs and researchers, all of these factors are regarded as significant (Halle et al., 2011; National Research Council, 2008).

These debates are not easy to reconcile. For example, brevity, which may be a priority for a large-scale survey, may sacrifice validity. While developing measures with strong psychometric properties is always a priority, researchers must find the balance in ensuring that they remain practicable to administer (Moore, Halle, Vandivere, & Mariner, 2002). Translation of a measure developed in English to other languages may compromise content validity. Tools designed to be administered by program staff may not serve the needs of parents, and vice versa. Similarly, a measure designed specifically for infants and toddlers is not appropriate for use with older children. Therefore, comparable measures must be developed for longitudinal studies or application in programs serving a large age span. Understanding that the usefulness and applicability of assessment data rely upon their accuracy and validity, there is a need for consensus around how to prioritize these considerations, and to integrate discussions about these factors routinely in research design, program planning and implementation, and policymaking.

Target groups concerned with measuring early childhood social and emotional development

As described earlier, the National Research Council (NRC, 2008) has provided important guidance around the multiple purposes of assessment in early childhood. Here we delineate a number of target groups that have a stake in the work being done to develop and implement high-quality measures of early childhood social and emotional development.

Programs engaged in planning, quality monitoring, reporting, and improvement

While the focus of this special issue is to review tools designed to assess the progress of individual children, it is necessary to acknowledge that the field is also concerned with assessment in the context of the current results-based, accountability climate for educational programs. Assessment systems are being designed which use aggregated child-level data, classroom environmental ratings, and teacher/caregiver performance assessments to make decisions at the program level. The goal of such systems is to use the assessment results to design or improve the quality of services provided to young children (Epstein et al., 2004; National Association for the Education of Young Children & National Association of Early Childhood Specialists in State Departments of Education, 2003). Program improvements take multiple forms, ranging from the child/classroom level (e.g. staff planning new learning

² Due to the enormous variation in when children achieve developmental milestones in early childhood, we use the term “differently-abled” in lieu of “developmentally delayed” as children not yet demonstrating certain skills at this age may not be impaired in any way.

activities to support skill mastery for particular children or groups of children) to the program/organization level (e.g. administrators investing in a new curriculum or providing professional development). These efforts all aim to improve overall capacity to deliver high quality care and education. Early childhood programs and systems often use assessment results to confirm that they are operating with fidelity and in fact serving the needs of the children in their care and supporting their development (Riley-Ayers, 2014). Assessment provides a picture of children's developmental status and progress, and the reporting of assessment results allows decision makers to ensure that programs continue to make positive contributions to child outcomes.

Policy makers determining state and federal investment

Assessments provide information about whether children or programs are meeting individual or collective goals deemed appropriate for the focal children's age, background, context, and other characteristics. These various indicators and goals are sometimes referred to as benchmarks (i.e., standards of performance or achievement against which something can be measured or judged). Assessment data provide the lens through which policymakers can see and confirm whether policy goals articulated via program standards or benchmarks are being met (Cooper et al., 2009).

Policy makers are placing a growing emphasis on promoting positive social and emotional development for young children, and requiring that federally sponsored programs and services ensure that this aspect of development is supported. For example, the Office of Head Start has established indicators and strategies for the development of positive self-concept, self-control, cooperation, social relationships, and knowledge of families and communities (U.S. Department of Health and Human Services Administration on Children Youth & Families Head Start Bureau, 2003). In addition, the Office of Special Education Programs, U.S. Department of Education, has established a system of accountability and monitoring that includes positive social and emotional skills (including social relationships) for young children, birth through five, served under Part C and B/619 of the Individuals with Disabilities Act (IDEA) (Fox & Smith, 2007).

Similarly, the Administration for Children and Families prioritized social and emotional development as a core component of their "well-being framework" for children and youth receiving child welfare services (U. S. Department of Health & Human Services, 2012). Additionally, the Race to the Top Early Learning Challenge program, a grant initiative aimed at states and designed to improve the quality of early learning and development programs for children ages birth through five, has emphasized states' development of standards related to early social and emotional development, in addition to other essential domains of school readiness (U.S. Department of Education & U.S. Department of Health & Human Services, 2011). Similarly, the Administration for Children and Families (ACF) Office of Child Care (OCC) provided guidance to states preparing Child Care and Development Fund (CCDF) state plans on the adoption of policies to promote the social, emotional, and behavioral health of young children in family-serving contexts (U. S. Department of Health & Human Services, 2015).

Researchers who guide the conceptual and contextual basis for measures of early childhood social and emotional development

One of the greatest contributions researchers can make is to continue to seek agreement on defining the various dimensions of social and emotional development. Greater consensus may help ameliorate the current conceptual clutter exacerbated by measures designed to assess the many different focus areas currently emphasized by researchers (Denham, 2006; Jones et al., 2016-in this issue). There are several avenues to achieving this. First, researchers must distill the extant evidence base to better understand and relate the many conceptualizations of social and emotional development across subdomains, noting where they

are distinct and where they overlap. Research that can discern which aspects of social and emotional development (and also which measures) are most predictive of later outcomes is necessary in this regard. Researchers must also collaborate with early childhood practitioners and programs to better understand the child outcomes of interest to them and develop assessments for understudied or poorly instrumented areas of development. Exploring the intersection of research agendas with the pragmatic needs of child-serving programs and services will aid the field in prioritizing the most relevant developmental outcomes and identifying appropriate assessment tools.

Concurrently, researchers must remain mindful of the unique contexts of development and skill emergence for special populations, including minority children, English language learners, and children with special needs. Explication is needed regarding best practices for assessing children whose developmental trajectories fall outside the bounds of tests normed on typically-developing children. Future assessment tools ideally will manifest universal design characteristics that facilitate use with *all* children, across the age span and including children with special needs, English language learners, and children from cultural and language minorities (National Research Council, 2008). Implicit in this goal is ensuring that new or adapted measures of social and emotional development have strong evidence of reliability, validity, and sensitivity to intervention, especially those used in large-scale data collections in diverse child populations.

Continued dialog is also needed about ethical standards associated with assessment, including the need to reduce burden on children being assessed at multiple intervals or for multiple purposes (National Association for the Education of Young Children & National Association of Early Childhood Specialists in State Departments of Education, 2003). The cost to the child removed from their daily routine to participate in assessment activities must be weighed carefully relative to the benefit of the program or study.

Developers creating and publishing measures

The NRC report makes clear that the purposes of assessments should drive the design and implementation of those assessments (National Research Council, 2008). For example, assessments to evaluate the effectiveness of a program are distinct from assessments intended to guide student instruction. Further elaboration on the purpose and utilization of measures designed for either assessment or screening is necessary. Developers should have a tremendous stake in clearly specifying the different uses of assessments, and designing tools that are valid, reliable, and feasible to administer to children of diverse backgrounds in a variety of early learning and other child serving settings.

To this point, assessments are sorely needed which match the cultural background of the children being assessed. Developers can ensure this by performing standardization with adequately sized samples of minority children, striving to avoid "test bias," defined as a "mismatch between the cultural content of the test and the cultural background of the person being assessed, so test items are not accurately reflective of the developmental experiences of the minority population" (National Research Council, 2008, p. 236). Developers must unilaterally provide stronger evidence regarding the validity of making inferences related to language and cultural minority groups and for children with disabilities. Accordingly, developers must clearly distinguish under what conditions assessments are or are not appropriate, including the age range for which an assessment is appropriate and whether an assessment is appropriate for children progressing through stages of development in ways considered atypical from their chronological age.

Developers can also ensure appropriate utilization of assessment tools by outlining training criteria and implementation guidelines. For example, details regarding the time needed to perform accurate and reliable assessments (particularly when using observational tools) and techniques for working with children of different ages, backgrounds,

and abilities (particularly with respect to assessments administered in children's native languages) would be especially useful.

Dynamic among the different target groups

The aforementioned groups and their specific objectives when studying, designing, considering, or using assessments of social and emotional development need not be at cross purposes. A reciprocal dynamic between knowledge generation, practice, and policy is at play, and each actor has a role in this regard. From program delivery and curriculum planning, to program accountability to decision makers, to research conducted with children, parents, and staff in a multitude of settings, to developers gauging and responding to the market needs of the field, the field at large has an opportunity going forward to develop and align complementary sets of measures that meet the needs of different users across early childhood settings. We must state the following, with no equivocation: It is inherently the responsibility of the field to 1) be clear on the intended purpose of any assessment of child development and progress, and 2) ensure that the selected measure demonstrates satisfactory psychometric properties for its intended purpose.

Organization of this special issue

The remainder of this special issue is organized into three articles. The first (Halle & Darling-Churchill 2016-in this issue) provides a review of selected, extant social and emotional measures' characteristics and quality. This discussion is grounded in a summary of key literature that was examined to delineate four subdomains of social and emotional development: Social competence, emotional competence, behavior problems, and self-regulation. The authors also provide information on the operationalization and measurement of executive function, which is distinct from but related in important ways to specific aspects of social and emotional development, such as self-regulation. A set of criteria developed to evaluate the characteristics of the measures is described, along with the rubric used to apply the criteria. A short list of measures that were rated highly across a majority of criteria, including a priority subset of psychometric criteria, is presented and discussed. Challenges in terms of measure development and utilization are then described. This article concludes with a brief discussion on enhancing the usefulness and effectiveness of current and future measures of social and emotional development.

The next article (Campbell et al.) presents a collection of five commentaries commissioned from researchers specializing in early childhood development, corresponding to the identified subdomains of social and emotional development as well as executive function. The first commentary, *Social Competence in Early Childhood: Challenges in Measuring an Emergent Skill*, by Stephanie M. Jones and Monica Yudron of Harvard University, describes how social competence fits into the broader category of social and emotional skills and how it provides a critical foundation for academic success. The authors present a conceptual model relating three distinct yet interwoven domains of social emotional skills – cognitive, emotional, and social – as part of an organizing framework for social-emotional learning (SEL). Noting the importance of child-context and social norms in all attempts to measure social competence (as well as other aspects of social and emotional development), Jones and Yudron discuss conceptualization and measurement broadly. They also provide a brief review of extant measures of social competence in early childhood. The paper concludes with a call for policymakers to prioritize supports for the development of social competence.

The second commentary, *Emotional Competence in Early Childhood: Construct and Measurement Considerations*, by Susanne A. Denham and Grace Z. Howarth of George Mason University, makes the case for the need to include social and emotional development when measuring overall child well-being. Focusing specifically on the subdomain of emotional competence, they first explicate the difference between the

components of emotion expression, regulation, and knowledge. Then, they discuss the paucity of adequate assessment tools designed to get at this area of development. Denham and Howarth also provide a useful graphic model describing the relationship between elements of an integrated system of assessment used to inform educational program delivery. A review of essential criteria for evaluating the quality of measures is provided, as well as a summary of useful measures of emotional competence.

The next commentary tackles behavior problems. In *Measuring Social and Emotional Development in Early Childhood: Should Behavior Problems Be Included?*, Susan B. Campbell of the University of Pittsburgh, describes theoretical and conceptual issues relating how behavior problems and social and emotional competence fit together and evolve as children develop, and how these areas predict general adjustment or school readiness. Campbell proposes that – while a strengths-based focus on early development is more predictive of later outcomes – there remains value in assessing behavior problems to identify persistent problems that transcend normal developmental variation, and which may require intervention. She calls for multiple assessments over time to inform longitudinal studies of both problem behaviors and social and emotional competencies to inform conclusions about a child's development. Campbell then provides a summary of the measures included in Halle and Darling-Churchill's review, this issue, and distills important considerations for measure development and utilization.

Next, *The Need to Assess Self-Regulation Both Objectively and Within Context*, by Amanda P. Williford and Jessica E. Vick Whittaker from the University of Virginia, discusses the relevance of the development of self-regulation skills in early childhood for later school readiness. They begin by identifying multiple components of self-regulation (emotional, behavioral, and cognitive) and acknowledging the lack of agreement among researchers on the interplay between self-regulatory functions and executive function. Using a lens focused on supporting the promotion of self-regulation in classroom-based settings, they make numerous critical observations. For example, they note that few available measures of self-regulation are designed for use by practitioners, assessment in the context of typical daily routines is critical, and information to help teachers link assessment to curricula and practice is lacking. Following an appraisal of extant measures, they close with the observation that many of the reviewed measures of self-regulation lack precision and may not account for rater-bias, and provide a call to the field to continue work to develop objective, valid, and reliable measures of this area.

Finally, *Measurement of the Executive Function Domain* presents commentary by Michael T. Willoughby, RTI International, on the decision to consider executive function (EF) in relation to this review of social and emotional measures. Willoughby questions why EF is singled out for consideration when there are other domains, such as the cognitive domain, that are also related to the measurement of social and emotional development. He also critiques the methodology used in Halle and Darling-Churchill's measure review. Willoughby begins with an overview of current conceptualizations of EF, points out the lack of consensus in the field, and raises serious concerns about the lack of clear differentiation in discussions of EF and self-regulation. Willoughby provides a useful discussion of the decision rules that can be brought to bear in reviewing measures (Halle & Darling-Churchill, 2016-in this issue). He both acknowledges the challenges inherent in such a review and provides recommendations for future efforts. In closing, he provides commentary on the field of measures reviewed in this special issue, and asserts that both discrete, performance-based measures (i.e., direct assessment) and behavioral questionnaires that capture contextual factors must be used to accurately assess executive function.

The final article, *Young Children's Social and Emotional Development: Key Conceptual and Measurement Issues That Emerge from the Special Issue Papers* (Jones, Zaslow, Darling-Churchill, & Halle), presents a cross-cutting summary of the issues raised by contributors to this special

issue, and discusses implications for programs, policymakers, and researchers. Following reflection, the authors acknowledge that, while progress in conceptualizing and assessing the domain of social and emotional development in early childhood has been made, a paradigm shift in the field's thinking about measurement and tools for measurement of social and emotional development is imperative. The authors further call for specific responses by the field. These include collaboration to elicit conceptual clarity and greater agreement on constructs and definitions, and clearer guidance on the selection and appropriate utilization of extant measures.

In closing, it is our hope that this issue succeeds in spurring a collective commitment to creating a useful developmental taxonomy of early childhood social and emotional competencies for the field. As articulated in the concluding article, such a tool would classify the subdomains of social and emotional development and their corresponding constructs within a clearly articulated framework, and then map each classification onto psychometrically strong measures appropriate for use with children from diverse backgrounds. Such a taxonomy and related measures will ultimately help solve the many challenges associated with assessment in the critical area of young children's social and emotional development.

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