

Evaluating Positive Social Competence in Preschool Populations

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Abstract

Social competence is seen as a critical aspect of academic and social success; however, the construct is often minimized to a set of social skills or the absence of negative behaviors. The current study aims to broaden the understanding of social competence by incorporating the factors associated with the development of social competence and the outcomes associated with social competence into one model. Additionally, the multifaceted construct of positive social competence included in the model is entirely positively framed. Participants in the current study were 153 sets of parents and children attending preschool in a large suburban preschool program in Colorado. Structural equation modeling was used to simultaneously examine how early risks and protective factors relate to social competence and how social competence relates to outcomes (social school readiness and self-concept/self-esteem). Data resulted in a well fitting model overall. Significant pathways were found between Child's Self-Regulation and Positive Social Competence and between Positive Social Competence and the two other endogenous variables in the model (i.e., variables explained by other variables in the model), namely Social School Readiness and Self-Concept/Self-Esteem.

Key Words: positive social competence, preschool, school, kindergarten readiness, self-regulation, self-esteem, early language abilities, measurement, structural equation modeling, behaviors, facilitative parenting, emotionality

Literature Review

Developing social competence is seen as critical to an individual's overall adjustment (Chen, Zhang, Chen, & Li, 2012; Merrell, Streeter, Boelter, Caldarella, & Gentry, 2001). Social competence is influential in a person's feeling of success in several aspects of life including school, relationships, and social interactions. For example, Walker, Garber, and Greene (1994) found social competence to act as a buffer against health problems commonly associated with negative life events. Specifically, children who experienced negative life events and had low social competence demonstrated high levels of somatic complaints, whereas, for children who had high levels of social competence, negative experiences were not related to somatic complaints. One study even showed increased social competence resulting in decreased cardiovascular risk (Boyer & Nelson, 2015). Social competence can also influence school success (Chen et al., 2012; Wentzel, 1991) and self-esteem (Houck & Spelman, 1999; Mota & Matos, 2013), thus providing a strong foundation for positive long-term effects. For instance, one longitudinal study found children seen as socially competent at 16 months continued to be viewed as socially competent through 15 years of age (Campbell, Lamb, & Hwang, 2000).

Conversely, low levels of social competence can contribute to lowered self-esteem (Egan & Perry, 1998), which in turn can contribute to victimization. Egan and Perry (1998) suggested that children who are isolated often end up anxious and submissive in conflicts with others and, therefore, become a main target for bullies. Healy, Sanders, and Iyer (2015) found bullied children had lesser relationships with their peers. Other risks related to deficits in social competence include conduct problems, substance abuse, poor school adjustment, violence, juvenile delinquency, and antisocial behavior (Merrell et al., 2001). Consequently, children with low levels of social competence may be at-risk for long-term negative consequences.

Currently, several barriers hinder the application of truly comprehensive programs to support young children's social and emotional growth. Initially, one major concern was no consensus on the definition of social competence had been reached among researchers (Arsenio & Lemerise, 2001; McConnell & Odom, 1999). Therefore, although social competence is identified as the variable of interest in several studies, few have actually studied the same construct. While current research generally recognizes social competence as a more multifaceted construct (Gagnon et al., 2014), many times the operational inclusion is still minimized because only one measure is used in the assessment process. This results in often reducing the complexity of the construct to a set of social skills or a lack of problem behaviors. Researchers have warned that this

minimized construct will not likely translate to social competence (Erdley & Asher, 1999; Pianta & Walsh, 1998). Therefore, investigations are needed that employ social competence as an entirely positive construct. Finally, research on social competence is often limited by methodological factors, such as incorporating only portions of the relevant variables into a study. This parceling does not allow for a more complex understanding of the interrelationship among all of the variables. Furthermore, interactions between the various variables could potentially have a great effect on the conclusions.

The importance of children's emotional and social stability as a prerequisite for entering school has been emphasized frequently by researchers and teachers (Bierman et al., 2008; Blair, 2002; Chang, Shelleby, Cheong, & Shaw, 2012; Pianta & La Paro, 2003). Specifically, a survey completed by the National Center for Early Development and Learning (NCEDL) demonstrated teachers' concerns about how social deficits will impact learning in kindergarten classrooms (Rimm-Kaufman, Pianta, & Cox, 2000). Nationally, 46% of kindergarten teachers indicated that over half of their class arrived without all the necessary abilities to function successfully in the classroom, many of which were social components such as following directions and working in groups. It has been found that one-third of all children have difficulty adapting to school (Rimm-Kaufman et al., 2000) and 13–18% of preschoolers have serious behavior problems (Schell, Albers, von Kries, Hillenbrand, & Hennemann, 2015). The National Center for Education Statistics (NCES) surveyed a national sample of kindergarten teachers and found 84% of the teachers considered a child's ability to express his or her needs and wants to be very important for school readiness, and 60% reported being sensitive to other children's needs and following directions as central to early school success (Blair, 2002). On the other hand, only 10% rated knowledge of the alphabet and 7% endorsed being able to count to 20 as very important to school success (Blair, 2002). Researchers have suggested prekindergarten should provide the social and emotional foundations of kindergarten success (Emanoil, 2000; Schell et al., 2015). Pianta and Walsh (1998) also suggested beginning these efforts before kindergarten. Thus, improving our understanding of social school readiness in preschool populations would lend to this success.

Evaluation of Models of Social Competence

My intention was to expand the understanding of social competence. To do this, the aim was to incorporate social competence into a model as an entirely strengths-based construct. In past research, social competence had often been reduced to either a set of social skills or the absence of a negative characteristic (such as problem behaviors or a clinical diagnosis). Therefore, the review

of literature also included assessing the ways social competence had been operationalized. Social competence had been expressed as coming from choices made within the individual (active) or perceptions made by observers (passive). Some definitions focus on behavioral social skills (e.g., greeting a friend), others emphasize affective components of social competence (e.g., empathy), and others focus on cognitive aspects of the construct (e.g., problem-solving). In this study, the intention was to include a more comprehensive and entirely strengths-based model of social competence.

Previous theoretical models incorporated varied views of the major elements of social competence, and how these elements interact was explored (Brody, Murry, Kim, & Brown, 2002; Erdley & Asher, 1999; Halberstadt, Denham, & Dunsmore, 2001; Kantor, Elgas, & Fernie, 1993). Some of these models emphasize achieving social goals by integrating cognitive cues with behavioral selections (Erdley & Asher, 1999). Other models incorporate the interplay of context and the individual to understand social competence development (Halberstadt et al., 2001; Kantor et al., 1993). Kantor et al. (1993) built an interpretation of social competence on social acceptance, social interactions, and a sociocultural perspective (which attempts to understand social interaction in context), stating that social competence should be understood as a “dynamic process in which children are active and competent in interpreting subject positions, reading social cues, and assessing cultural knowledge over time and across contexts” (p. 146). Halberstadt et al. (2001) described a model that was comprised of historical, cultural, familial, interpersonal, physical, and emotional contexts spinning together as the individual sends, experiences, and receives messages. This model attempts to emphasize that social interactions are ever changing and is therefore depicted as a pinwheel.

Rose-Krasnor’s Prism

Despite the large inconsistencies in the definitions used for social competence, one author has proposed an underlying theoretical model for the construct that best aligned with my intention to be both strengths-based and comprehensive. Rose-Krasnor (1997) developed a Prism Model in order to incorporate the various aspects of social competence. The model has been often cited in research (Arsenio & Lemerise, 2001; Denham et al., 2001, 2003; Houck, 1999; McClelland & Morrison, 2003; Vaughn et al., 2000). Four basic types of operational definitions of social competence are described by Rose-Krasnor (1997): social skills approaches to understanding social competence, peer status approaches to understanding social competence, relationship-based approaches, and functional approaches which are generally linked to goal attainment. Rose-Krasnor explained that only emphasizing social skills when

operationalizing social competence “fails to see the forest through the trees” (p. 114) by excluding the function or goal of behavior. Some measures of social competence emphasize judgments by peers as indicators. This peer status approach fails to include children’s abilities to maintain relationships, and little research evidence suggests more popular children will have more success (Carlson & DesJardins, 2015). Relationship approaches attempt to describe competence through the quality of a child’s friendships; however, while friends can be positive influences on children, some may be negative influences. Finally, functional approaches focus on observed outcomes and tend to be context specific. Rose-Krasnor was in favor of combining these aspects, and thus, the prism model was developed. This comprehensive model seemed most compatible with the current author’s intention when explaining social competence in a more complete manner. Thus, Rose-Krasnor’s theoretical model was selected to guide the definition of social competence in this study.

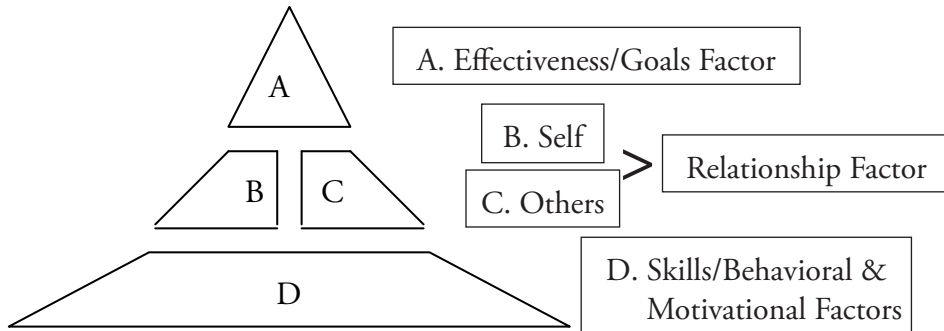


Figure 1. Pictorial representation of Rose-Krasnor’s theoretical prism with my observed variables.

Figure 1 shows the hypothesized sections of the model. A is the theoretical level depicting effectiveness (child’s ability to obtain desired outcomes and attain goals). Therefore, in my model this level is incorporated as the goals factor of the three-factor structure of social competence. B and C comprise the index level and represent a balance between self and others. This balance could enable children to have successful relationships. Therefore, this level is incorporated into the current study as the relationship factor of the three-factor structure of social competence for the study. D is the skills level and portrays the behavioral and motivational base. Thus, this level is incorporated into the model as the skills factor of the three-factor structure of social competence.

Theoretical Model

The aim of the current study was to evaluate the appropriateness of a positively framed measure of social competence for preschoolers, incorporating aspects of all three tiers of Rose-Krasnor's Prism Model into the construct and then incorporating the construct (called positive social competence) into an overall structural model of social competence including precursors and outcome variables. A comprehensive review of literature indicated social competence in preschoolers is influenced by several factors and, in turn, influences outcome variables. Yet, most research does not operationalize social competence in this comprehensive and multifaceted manner. Thus, my hypothesized model utilized the three-tiered, entirely strengths-based framework for social competence as the main latent variable (construct of interest, not directly measured). Additionally, several relationships were explored using Structural Equation Modeling (SEM). Child's self-regulation, early language abilities, facilitative parenting, and parental emotionality were exogenous variables (determined by causes outside the model) hypothesized to influence the child's positive social competence. Positive social competence, in turn, influences social school readiness and self-concept/self-esteem.

Variables Included in Hypothesized Full Model

Factors Associated With Development of Social Competence in Current Literature

Self-regulation. Self-regulation of emotion, sometimes referred to as emotional competence, is often seen as a critical tool for the development of social competence (Chang et al., 2012). This includes emotional expressiveness, emotional knowledge, and emotional regulation (Denham et al., 2003) as well as the ability to start or stop activities according to social demands, modulate verbal and physical acts in social situations, delay gratification, and act according to social norms without the presence of adult monitors (Degangi, Breinbauer, Roosevelt, Porges, & Greenspan, 2000; Houck & LeCuyer-Maus, 2002). Researchers have found dysregulated emotions to be predictors of lowered social competence both at school and at home (Chang et al., 2012).

Early language abilities. Early language abilities have also been linked to early social competence. Increases in language abilities in the preschool years help children to better understand their environment and positively influences their social interactions with adults and other children (Bredekamp & Copple, 1997). Children with speech/language impairments have an increased risk of problems with social interactions due to their language difficulties (McCabe & Meller, 2004; Qi & Kaiser, 2004). McCabe and Meller (2004) found

preschool aged children with speech/language impairments were regarded as demonstrating less self-control, empathic responding, and assertiveness, and therefore concluded “the speech/language-impaired child may be at a disadvantage for learning and cultivating socially competent behaviors” (p. 320).

Parenting style. Parental factors also relate to and influence children’s social competence (Altay & Gure, 2012; Eisenberg, Fabes, & Murphy, 1996; Fabes, Leonard, Kupanoff, & Martin, 2001; McDowell, Parke, & Spitzer, 2002; Sawyer et al., 2002). Parental attitudes of rejection—characterized by low levels of trust and being negative toward their children—have predicted lowered social competence in children (Oh, Park, Suk, Song, & Im, 2012). In contrast, supportive, involved, and vigilant parents have been found to influence increased social competence in their children (Brody et al., 2002). Clawson and Robila (2001) concluded that parents who were supportive while still valuing obedience and respect for authority developed the most social competence in their children.

Parent–child attachment and interaction. Researchers grounded in attachment theory propose that social competence is developed by promoting security and trust (Barone & Lionetti, 2012; Rose-Krasnor, Rubin, Booth, & Coplan, 1996; Svanberg, 1998). Developing a secure attachment with the primary caregiver, usually the mother, is most often noted as an important factor for later social success (Hedenbro & Rydelius, 2013; Schmidt, DeMulder, & Denham, 2002; Zajicek-Fraber, Mayer, Daugherty, & Rodkey, 2014). Svanberg (1998) indicated securely attached young children demonstrated more positive affect, increased achievement, greater conflict resolution, better positive perception of self, better social competence, and better overall school adjustment.

Positive parental affect. Researchers have found children who come from warm and positive home environments are seen as more socially competent (Howell, Graham-Bermann, Czyz, & Lilly, 2010; Valiente, Fabes, Eisenberg, & Spinrad, 2004), thereby linking children’s increased social competence to positive affective environments in the home. Eisenberg et al. (1996) found that parents could enhance their child’s social competence by encouraging the expression of emotion, providing comfort and other emotion-focused reactions, and reacting by helping the child solve his or her problem. Conversely, maternal depression has predicted lowered social competence in children (Bates, Luster, & Vandenberg, 2003) and has been seen as a risk factor contributing to children’s need for early special education services (La Paro, Olsen, & Pianta, 2002), mainly due to the parent’s inability to be emotionally available to the child (Sommer et al., 2000).

Outcomes Associated With Social Competence in the Literature

Self-concept/ self-esteem. Low levels of social competence can contribute to lowered self-esteem (Egan & Perry, 1998) which, in turn, can contribute to victimization. Halberstadt et al. (2001) suggested children with increased self-concept are less susceptible to the negative consequences of being bullied, since these children are able to effectively generate correct assessments of self based on internal knowledge rather than allowing themselves to become diminished by the negative assessments of others. Similarly, Miller (2013) found sociability self-concept served as a barrier against concerns of violence at school when children are exposed to aggression. Positive self-concept and self-esteem become important foundational elements for learning by positively affecting children's willingness to succeed and persist in difficult situations (Roberts, 2002).

Houck (1999) examined the temporal nature of the relationship between social competence and self-concept, evaluating the ability of social competence to predict subsequent self-concept and the ability of self-concept to predict later social competence. Results demonstrated a significant relationship between a child's social competence score at 12 months and their self-concept score at 24 months, as well as the child's social competence score at 24 months and their self-concept score at 36 months. However, when the variables were reversed, self-concept was unrelated to subsequent social competence. This is evidence of a temporal relationship between early social competence and later self-concept.

Social school readiness. Early school success has been shown to predict later academic success (Pianta, Cox, Taylor, & Early, 1999). Therefore, setting up children to succeed in their early schooling experience is critical. Most schools have a system in place to assess the child's "readiness" for school, often utilizing one or more assessment instruments. These instruments are usually achievement focused, assessing number concepts, color naming, general information, and the like. Past research has shown many of these types of screening tests to have low predictive validity for school success (Ellwein, Walsh, Eads, & Miller, 1991). Currently, this remains true, as researchers continue to see academic screenings completed at the beginning of kindergarten unable to predict academic success in first grade (Erhart, 2014). Over time, researchers have shown teachers stressing the importance of social readiness when discussing potential for success in school (Blair, 2002; Sabol & Pianta, 2012). Pianta and La Paro (2003) addressed issues for improving early school success by highlighting potential difficulties children demonstrate early in their schooling, such as problem-solving, independence, and following rules. Readiness on the part of the child, the teacher, the school, the parents, and the community are needed for successful transitions (McWayne, Fantuzzo, & McDermott, 2004; Pianta

et al., 1999; Pianta & Kraft-Sayer, 2003). Readiness should be determined by evaluating the “fit” between the classroom expectations and the child’s abilities and needs, rather than a set of acquired skills and experiential knowledge. Thus it appears that, in order to better predict school success, a broadened view of readiness must be incorporated.

Therefore, how might schools address this deficit in social readiness that teachers are expressing is a major concern? My study and model propose social competence as the precursor to readiness at school from a social standpoint. Specifically, as children learn to demonstrate appropriate social skills (e.g., following rules), interact in supportive ways with one another, and become motivated toward goals, the social concerns expressed by educators would likely diminish.

Purpose of the Study

The aim of the current study is to evaluate the appropriateness of a positively framed measure of social competence for preschoolers and incorporate this construct into a larger, comprehensive model of social competence in preschool populations. In order to incorporate the many variables seen as important precursors to the development of social competence as well as the important outcome variables social competence is seen to impact, a comprehensive review of literature was completed. This review indicates that this project will be the first to conceptualize social competence as an entirely positive construct and assess the “fit” of a completely theory-driven model of preschool social competence. Thus, the current study seeks to evaluate whether the overall hypothesized model of preschool social competence fits the data from the sample.

The Hypothesized Full Model

Initial Inclusion of Items

After a review of literature on social competence, variables were selected to be included in the hypothesized model. Child’s self-regulation, early language abilities, facilitative parenting, and parental emotionality are exogenous variables hypothesized to influence the child’s positive social competence. Positive social competence, in turn, is expected to influence social school readiness and self-concept/self-esteem.

Operationalizing the Variables

Measures were evaluated to be included in the survey as either an adoption or an adaptation. This included searching the assessments available on the shelves and on microfiche at the university library; researching available measures from major assessment companies; reviewing the instruments used

in current research studies of preschool social competence from the review of literature; searching the Buros Mental Measurements online, ERIC, and PsychLit; and general online searches through the Internet. Since the measures were to be combined to develop the parent-report survey, lengthy measures would not be practical nor would measures that cannot be used or adapted into a parent-report response format. When choosing scales, additional considerations were also deliberated, including whether the instrument had been found to be valid and reliable for use with similar samples in the past and if the items on the measure were in alignment with the strengths-based framework.

Early language abilities. Early language abilities were assessed with items from the Communication subscale of the Ages & Stages Questionnaires (2nd ed., Squires, Potter, & Bricker, 1999). Communication is one of the six subsections on the survey and assesses vocalizing, listening, and understanding. The Communication subscale is a parent-report form used with children from 4 months to 60 months of age and provides three options for responses (2 = yes, 1 = sometimes, 0 = not yet). Items were selected to align with the ages of children in the study. Initially, a total of 10 items were included in the survey. Specifically, each question pertains to the child's ability to comprehend language, the child's ability to understand semantics of language, or the child's ability to speak or vocalize. Higher scores represent stronger language abilities. Four items were totaled to represent comprehension, four items were totaled to represent language production, and two items were totaled to represent semantics.

Self-regulation. Self-regulation was measured with parent-report items adopted from three subscales of the Children's Behavior Questionnaire Short Form (CBQ-SF; Rothbart, 2000). Each subscale is comprised of six 7-point items (1 = extremely untrue to 7 = extremely true) representing Falling Reactivity/Soothability, Attentional Focusing, and Inhibitory Control. The CBQ-SF is a Likert-type parent-report form appropriate for parents with children between three and seven years old. The Falling Reactivity/Soothability subscale measures a child's ability to recover from peak stress, excitement, or general arousal. The Inhibitory Control subscale is a six-item subscale measuring the child's capacity to plan and to suppress inappropriate approach responses. The Attentional Focusing subscale measures the child's ability to remain focused on task-related activities.

Facilitative parenting/Parent-child interaction and attachment. Parent-child interaction (attachment) was assessed with eight 4-point items (1 = strongly disagree to 4 = strongly agree) developed from a scale designed to be consistent with the guidelines for observation of parent-child interaction of the Transdisciplinary Play-Based Assessment (TPBA; Linder, 1993) model. This model is a strengths-based system for assessing young children through

observation and interaction with the child and the child's parent. Four domains are assessed using TPBA: communication and language, cognitive, sensory–motor, and social–emotional. Each domain is separated into various sections, and guidelines are provided to guide the assessment of each domain. The parent–child interaction section is a subcomponent of the social–emotional domain that provides information about attachment, separation, and individuation behaviors of the child and parent. The guidelines suggested in the TPBA manual were used to develop the eight 4-point (1 = strongly disagree to 4 = strongly agree) survey items for this section of the survey in the current study. Higher scores suggest a more favorable parent–child relationship. Past research has demonstrated support for TPBA's concurrent validity (95% agreement with standardized measures; Myers & McBride, 1996) and interrater reliability (Friedli, as cited in Linder, 1993) for use with young children.

Parenting style. Parenting Style was measured with ten 4-point items (1 = strongly disagree to 4 = strongly agree) incorporating items from the Nurturing and Expectation subscales of the Parent Behavior Checklist (PBC; Fox, 1994). The Expectation subscale measures a parent's developmental expectations for the child (e.g., "My child should be able to use the toilet without help") and the Nurturing subscale measures the parent's strategies used to promote their child's psychological growth (e.g., "I read to my child at least once a week"; Fox, 1994). Studies have utilized this measure to evaluate parenting style (Brenner & Fox, 1999; Nicholson, Anderson, Fox, & Brenner, 2002). The total scale has 50 Expectation items and 20 Nurturing items. Previous research with parents of preschool children has demonstrated Cronbach's alphas of .97 for the Expectations subscale and .82 for the Nurturing subscale with a large sample ($n = 1,056$; Brenner & Fox, 1998).

The two subscales represent supportiveness (nurturing subscale) and demandingness (expectation subscale) consistent with definitions of parenting style (Darling, 1999). High levels of nurturing and expectation have been shown to influence increased social competence; therefore, higher scores will represent more nurturing and expectation. For the current study, five items were selected from each scale based on the factor loadings for each item in past research (Fox, 1994). Five items from the Nurturing subscale and five items from the Expectations subscale were each totaled for use in the current study.

Parental emotionality: Parental positive affect. Parental positive affect was measured with the Positive Affect subscale of the Adult Temperament Questionnaire (Evans & Rothbart, 2007). The subscale is divided into three factors representing frequency and duration of positive affect (4 items), intensity of positive affect (4 items), and threshold of positive affect (3 items). All 11 items were measured using a 6-point self-report scale (1 = never to 6 = always). The

Positive Affect scale was shown in previous research to demonstrate good internal consistency for a sample of 258 undergraduates (Cronbach's alpha = .84; Evans & Rothbart, 2007). In the current study, each of the subscales represented one indicator variable (variable directly observed or measured).

Parental emotionality: Maternal/parental depression. Depression was measured with an eight-item, 6-point scale (1 = never to 6 = always) I developed to correspond to the diagnostic criteria set by the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV-TR; APA, 2000). Higher scores are indicative of higher levels of depressive symptoms. One of the nine criteria, used to assess suicidal ideation, was omitted due to the intrusive nature of the question content. The DSM-IV-TR criteria indicate diagnosing major depression is five of nine criteria are met. Therefore, eight Likert-type items were able to capture the overall relative depression level of the participant. The items were summed in order to produce one indicator variable. Higher scores represent higher levels of depressive symptoms. Past measures constructed to coincide with the DSM diagnostic criteria for major depression have produced valid and reliable results for adults (Zimmerman, Sheeran, & Young, 2004).

Positive social competence: Skills. Recalling Rose-Krasnor's prism, the skills tier was assessed with five 5-point (1 = never to 5 = always) items representing common preschool social skills. Parents were asked to respond to each item twice, first regarding their child's ability to execute the particular skill, and second regarding the frequency with which the behavior is executed by the child. Only the five knowledge items were included in the analysis, although assessing the frequency has provided valuable information for interpretation of results.

Positive social competence: Relationships and goals. The other two hypothesized factors of positive social competence were assessed with the Social Competence subscale of the Developmental Profile (Version P; Fabes et al., 2003), used to measure two factors of positive social competence. The Social Competence subscale is a six-item positively worded subscale. Three items deal with relationship abilities and were hypothesized in the current study to relate to Rose-Krasnor's (1997) index level. The other three items relate to outcomes and goals and are hypothesized in the current study to represent Rose-Krasnor's theoretical level.

Social school readiness: Peer and classroom attitudes. Children's peer-related and classroom-related subsets of the Purdue Social Attitude Scales for Preschool Children (PSASPC; Cicirelli, 1977) were used to assess social school readiness. The PSASPC is a pictorial self-report measure that aims to address children's attitudes toward the classroom and their peers. PSASPC was developed to be based on Baumrind's 1972 theory of instrumental and expressive competencies. The model incorporates the child's attitude toward peers and the

child's attitude toward school to align with the literature advocating that school readiness be measured by assessing the child's willingness and acceptance of the school environment. During psychometric testing, 100 preschool aged children were given the PSASPC. Internal consistency reliability for the group was calculated to be .93; internal consistency reliability for the peer and school subscales were .80 and .74, respectively (Cicirelli, 1977).

In my study, the items from the PSASPC were selected to align with Pianta's (2003) research recommendations that we change our emphasis on skills when assessing children's readiness and focus more on the child's perception of the school environment. Two 10-item subscales were included. Parents were provided instructions on how to administer the subscales to the children. Ultimately, these items were not included in the final analysis (see changes to model section for further explanation).

Social school readiness: Fit in the school. The third factor of social school readiness, namely fit in the school, was measured by three 4-point (1 = strongly disagree to 4 = strongly agree) items corresponding to the Social Attention subscale of the BASE: Behavioral Academic Self Esteem-A rating scale (Coopersmith & Gilberts, 1982). The items were adapted to be assessed through parent report. The social attention factor measures how well the student "fits" into a school environment (Coopersmith & Gilberts, 1982). For the current study, the items included to measure this variable assessed how well the child cooperates with others, the child's positive view of school, and their ability to talk and listen at appropriate times. Current research is just beginning to evaluate the optimal dimensions of this variable. Thus, these variables were chosen because they have been used to evaluate "fit" in past studies (Warash & Markstrom, 2001).

Self-concept/Self-esteem: Behavioral academic self-esteem scales. Self-concept/self-esteem was assessed with seven parent-report items adapted to correspond to the Self-Confidence, Social Attraction, and Success/Failure subscales of the BASE: Behavioral Academic Self Esteem-A rating scale (Coopersmith & Gilberts, 1982). The measure was selected because the subscales align with aspects of self-concept in the preschool age group in the current literature. The Self-Confidence factor measures the child's expression of their accomplishments. The Social Attraction factor measures how well the child works with peers and how well he or she describes himself or herself. The Success/Failure factor measures how well the child copes with correction or failure. Although the BASE was developed over 30 years ago, more recent use of the BASE with a population of three- to five-year-olds demonstrated good internal consistency represented by Cronbach's alpha's of .97 for success/failure, .85 for social attraction, and .83 for self-confidence (Warash & Markstrom, 2001). Furthermore,

newer measures to assess preschool self-concept/self-esteem would be optimal, but after thorough review of available instruments, the BASE was selected because it is most closely aligned with the desired construct. Cronbach's alpha for these indicators' variables for the current study were .71 for self-confidence, .79 for social attraction, and .58 for success/failure.

Method

Participants

Participants in the current study were sets of parents and children attending preschool in a large suburban preschool program in Colorado; 163 parents returned either fully or partially completed surveys. In the case of partially completed surveys ($n = 10$), participants were included in the portions of the analysis where they had complete information, but not in the final analysis; 153 participants were included in the final analysis. Children ranged in age from two years to six years, and parents ranged in age from 20 to 60 years of age. Data were collected pertaining to 71 male and 63 female children (demographic information on gender was not completed by the parent in some cases).

Procedure

Two pilot studies were completed prior to the analysis for the current study. The purpose of the first pilot study was to assess the psychometrics (validity and reliability analyses) in order to evaluate the appropriateness of the measures for the population. Also, any modifications needed could be made before the full study was conducted. Although 130 sets of materials were distributed to the sites, only 12 surveys were returned for that pilot study. Due to the very low response rate, no analysis could be conducted. Similarly, low response rates on previous research with parents of preschoolers supported the need to change the method for distribution of the surveys from returning surveys to a classroom teacher to allowing completion online, also.

This change in distribution was made for the second pilot study. In order to distribute materials via the Internet, the child-report scales had to be used without the pictures. The questions were read to the child by the parent, and the child was asked to respond with a "sad face" or "happy face." Thus, the main purpose of that pilot study was to assess the reliability of scores from the modified scale for the population. The survey was distributed to parents of preschool aged children through listserve and email networking. Thus, nonresponse error cannot be calculated. Again, participation in the study was limited. A total of 37 participants completed the full online survey (survey items are available from the author upon request). Cronbach's alpha was calculated for the two

indicators which included items from the modified scale. Both indicators demonstrated internal consistency in responses from the participants above the .70 cutoff. Thus, despite the necessary modification to the scale, the data demonstrated adequate reliability in the responses.

For the full (current) study, preschool teachers disseminated the surveys, and parents completed the survey by using an online link. They could also choose to participate by handwriting the responses to the survey, and the data would be entered later by the researcher. A total of 163 surveys were returned; 10 of the 163 returned surveys were missing information, so they were not included in the analysis of the full model. Structural equation modeling (SEM) was used to analyze the results. SEM allows for the use of multiple indicators (such as items or subscales) to represent one construct and is recommended for analyzing research in education and psychology (Keith, 1999) since it enables researchers to conduct a comprehensive analysis, including many variables of interest as multifaceted constructs.

Evaluation of Theoretical Constructs

Internal consistency analyses were evaluated for the data for each indicator variable by calculating Cronbach's alpha. Then, the covariance matrix and the asymptotic covariance matrix were produced. These matrices were used to conduct a confirmatory factor analyses (CFA) for each latent variable. Items producing low reliability estimates in relation to the rest of that scale were considered for exclusion from subsequent analysis in order to improve the overall internal consistency for the scale. Conventionally, Cronbach's alpha should be at or above .70 for adequate evidence of reliability (Cohen & Swerdlik, 1999). Since the model developed to be analyzed using SEM is theoretically derived, the general practice is to only make modifications that align with the overall theoretical framework (Hox & Bechger, 2007). Therefore, I made the decision to include or exclude an item on a case by case basis, considering both psychometric properties and the necessity of the item for the overall theoretical framework of the model. Next, informal exploratory factor analysis (EFA) was used to evaluate the basic structure of the indicators on each latent variable. Finally, CFAs were conducted for each latent variable as well as for smaller sections of the model.

Changes to the Model

At each step of the above process, considerations were made to modify scales and items within scales. Changes were made only when practical reasoning suggested the change was appropriate (Hox & Bechger, 2007). Thus, some items within indicators and whole indicators were deleted; however, the integrity of the original theoretical model did not change. Specifically, the Early Language

Abilities scale was modified by dropping four of the original items. The nature of the scale assesses language abilities for children progressively, such that the early items measure more simplistic language abilities, and the latter items evaluate more complex language abilities. Since the sample in this study was more representative of older preschool-aged children, as addressed in the demographic section, the earlier items were very skewed, thereby lacking variability in the responses. Based on this practical understanding of the population, this scale was reduced to measure abilities more appropriate to the sample.

Assessing the reliability for the items by scale, a few items were selected for exclusion because the items did not appear to be accurately evaluating the trait in question for the sample. One item each from two of the indicator scales was deleted (one from the parent–child interactions scale of the latent variable facilitative parenting, one from the threshold of positive affect scale of parental emotionality), as was one of the four indicator scales (intensity of positive affect) from the parental emotionality latent variable.

Additional modifications were made during an evaluation of the CFAs for smaller sections of the model. During this process, it became apparent that the two child-report indicators for social school readiness were not consistent with the rest of the model. While children demonstrated reliable responses amongst their own answers, the overall scales were not consistent with the rest of the parent-response items. Thus, both indicators were eliminated and the three remaining items, originally combined to make up the third indicator of social school readiness, were used as indicators for social school readiness.

Lastly, one item became problematic when the model relating the exogenous variables with positive social competence was evaluated. Using a Pearson correlation to investigate the covariance between the items on the child self-regulation scales with the items on the positive social competence scale, it was found that a large covariance between the indicator variable positive social competence skills was causing a problem with the model. Further analysis suggested that the problem was due to the similarity between an item on the skills scale and the inhibitory control scale. Since the item from the skills scale appeared to be more problematic in relation to other items in the model, it was eliminated from the scale.

Results

Prior to the analysis of the hypothesized model, confirmatory factor analysis (CFA) was used to evaluate the appropriateness of a three-factor construct for positive (or entirely strengths-based) social competence for a sample of preschool aged children. Recalling Rose-Krasnor's Prism Model, three dimensions

of social competence are emphasized. The CFA for positive social competence as a three-factor model was analyzed. All of the squared multiple correlations were adequate for this model, ranging from .20 to .57. The completely standardized factor loadings were all significant at the .05 level, ranging from .45 to .75. The fit statistics for this model were $\chi^2 = 49.42(32 \text{ df}, n = 159)$, $p = .0001$; RMSEA = .06, NNFI = .97; CFI = .98, SRMR = .06. This model was a very good fitting model.

Additional steps were also taken prior to the analysis of the full model since preliminary analyses were especially important for this study because several of the latent variables included in the model grew from a theoretical understanding of research and thus had never been conceptualized or measured previously. Thus, CFA was utilized to assess the relationship between the indicator variables with each latent variable. The seven latent variables tested for the purposes of this study were as follows: Child's Self-Regulation, Early Language Abilities, Facilitative Parenting, Parental Emotionality, Positive Social Competence, Social School Readiness, and Self-Concept/Self-Esteem. Finally, smaller portions of the full model were tested to provide the researcher with a more detailed understanding of how sets of variables within the full model interact with one another. Furthermore, understanding the relationship between smaller sets of variables within the full model can bring to light possible modifications (explained above) required before the overall model was analyzed.

Does the overall hypothesized model of preschool social competence fit the data from the sample? In order to address the research question, the full structural model was analyzed using the software program LISREL 8.52. The full model with values for standardized factor loadings, gammas (matrix of coefficients of effects of exogenous latent variables on endogenous latent variables) and betas (matrix of coefficients of the effects among endogenous latent variables) is included in Figure 2. For the analysis of the full structural model, four gamma pathways were included from each exogenous variable to positive social competence, and two beta pathways were included from positive social competence to each of the other endogenous variables in the model.

Analysis of Full Model

SEM was conducted on the full model. No structural changes were made to the model. The originally theorized seven latent variables remained in the full model, and all theorized relationships stayed constant. This means the full measurement model consisted of 21 indicators associated with seven latent variables as originally hypothesized. All of the squared multiple correlations were adequate for this model, ranging from .23 to .70 for the y-variables and .27 to .78 for the x-variables. The completely standardized factor loadings were

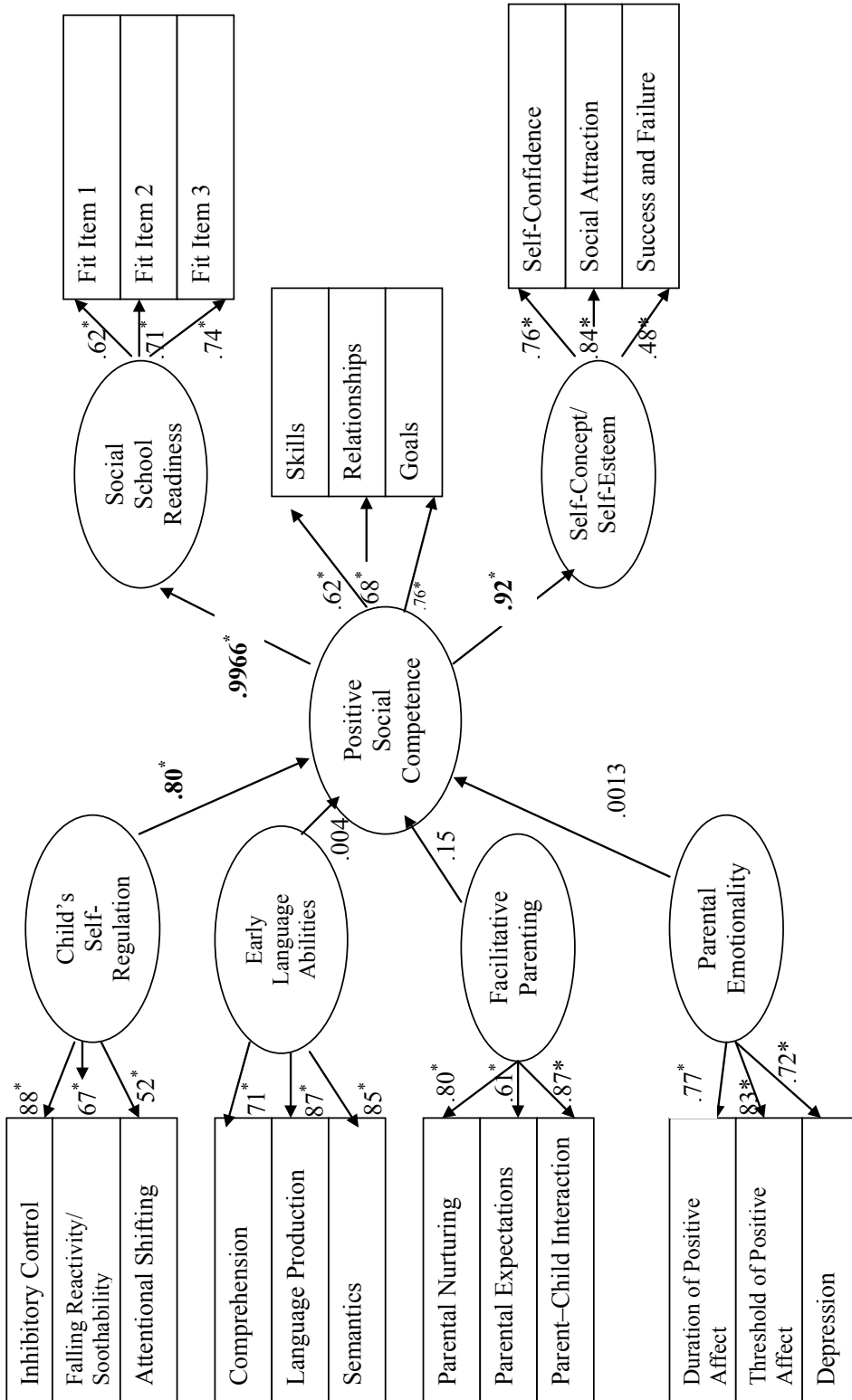


Figure 2. Full Model with Factor Loadings

Notes. *standardized factor loadings showing significance; Bold type = significant gammas/betas.

all significant at the .05 level, ranging from .48 to .88. The paths from positive social competence to each endogenous latent variable (β) were also significant at the .05 level. One of the four paths from the exogenous variables to positive social competence (λ) was significant at the .05 level. The fit statistics for this model were $\chi^2 = 320.16$ (177 *df*, $n = 153$), $p < .0001$; RMSEA = .07, NNFI = .96; CFI = .96, SRMR = .09. Although SRMR fell above the suggested value, three of the fit indices supported an overall good fitting model.

Discussion

Significant pathways were found between Child's Self-Regulation and Positive Social Competence, and between Positive Social Competence and the two other endogenous variables in the model—Social School Readiness and Self-Concept/Self-Esteem. For this study, pathways leading to Positive Social Competence from the other exogenous variables were not found to be significant. This may suggest the link to increased social competence in preschoolers is most effectively developed through early regulation of emotions. In this study, self-regulation included the child's capacity to plan and to suppress inappropriate approach responses; to recover from peak stress, excitement, or general arousal; and to remain focused on task-related activities. These components may serve as a foundational basis for program development.

Furthermore, social competence in early childhood appears to be a precursor for increased self-esteem and social school readiness. This link is consistent with findings in prior research studies (Denham et al., 2003). Self-concept has been seen as influential in later success in many areas of life (Roberts, 2002). Supporting social competence in young children may be an avenue to increase this growth. Therefore, an increased effort in early intervention and early education programs to foster children's social competence could be an optimal method for children's later success academically and socially. Specifically, consistent with Pianta and Kraft-Sayer's (2003) research on school readiness, in this study, "fit" was found to be the best indicator for social school readiness. Therefore, readiness may be more appropriately determined by evaluating the fit between the classroom expectations and the child's abilities and needs, rather than a set of acquired skills and experiential knowledge. While few in schools have completely adopted this philosophy, views of several researchers suggest that readiness should be considered environmentally and as the collaborative responsibility of the child, the teacher, the school, the parents, and the community (McWayne et al., 2004; Pianta et al., 1999; Pianta & Kraft-Sayer, 2003). Thus, this model adds to our understanding of school readiness for young children.

While significant pathways were not found in this study related to early language abilities, facilitative parenting, or parental emotionality and social competence in preschoolers, these relationships could be explored in future research in order to better understand factors related to social competence. Future studies may consider operationalizing these variables differently, including additional response methods beyond parent report and a longer collection time in order to gain access to a larger number of participants.

This model could be replicated with a larger and more diverse population in order to demonstrate increased generalizability of the underlying theoretical structures. This could provide increased understanding of social competence across individuals from diverse ethnic backgrounds. Additionally, this study could be a step in the process of developing an entirely strengths-based assessment measure for social competence. This study could also lead to the development of more environmentally focused assessment measures for school readiness based on the concept of fit between the child and the setting. Follow-up studies could also incorporate teacher-report and child-report measures in addition to the parent-report measures.

Often in the past, definitions have minimized social competence to a lack of negative behaviors or a set of social skills. After completing the current study, I am suggesting a much broader definition of social competence. This type of definition is consistent with the ideas suggested by other researchers in the area of social competence (Chang et al., 2012). Pianta and Walsh (1998) suggested developing skills without considering the function served by current behaviors will not improve competence, stating “programs that teach isolated skills or try to enhance child characteristics (e.g., self-esteem, affective education) lack a strong empirical or theoretical basis for their goals and can be a waste of classroom time” (p. 412). Thus, for social competence and, more specifically, positive social competence, I would suggest the following definition: Positive social competence is a combination of knowledge and appropriate implementation of social skills, abilities to enable a child to have positive relationships with peers and adults, and drive and attainment of goals which serve as a foundation for increased self-esteem and readiness for school success from a social vantage point.

In this study, the ultimate operationalized definition for social school readiness became the idea of fit in the school. Coopersmith and Gilberts (1982) measured the child’s fit by looking at how well the child demonstrated behaviors conducive to classroom learning. In 1988, the NAEYC disseminated the following suggestions for ensuring children have a successful start in school: (1) all children should start school based on age instead of what they already know, (2) ratios of teachers to children in classrooms should be low enough

to allow for individualized instruction, (3) groups should change frequently and be flexible, (4) children should be able to progress at their own pace, and (5) the curriculum should be appropriate for the age and developmental level of the students (as cited in Gullo, 1994). Continuing to promote a more environmental perspective of “readiness,” Pianta and Kraft-Sayre (2003) suggested establishing four critical connections to promote successful transitions to school: the family–school connection, the child–school connection, the peer connection, and the community connection. Some current research suggests emphasizing readiness as an environmental construct. Specifically, researchers suggest teachers be trained to support competence in the classroom to promote increases in sociability and well-being (Gaspar De Matos et al., 2012) and teachers and administrators should emphasize the individualized emotional and instructional needs in their classrooms (Vitiello, Moas, Henderson, Greenfield, & Munis, 2012). Yet, the inclusion of true environmental fit as a priority of the whole school community when evaluating readiness of children entering kindergarten is seldom used. More research is needed to obtain a better understanding of fit so that more appropriate measures can be developed to assess readiness.

Implications

The results of this study serve to broaden our understanding of social competence in preschool populations in a variety of ways. First, the study demonstrated that social competence could be successfully operationalized as an entirely positive construct. Also, significant links were found between the child’s ability to regulate his or her emotions and increased social competence. Social competence development was found to be an important predictor for readiness for school from a social standpoint as well as for the development of self-esteem. Most importantly, social competence in preschool populations could be effectively modeled using the variables contained in the model.

This study can be a driving force toward social and academic advancements for young children. Specifically, educators should use a broadened definition of social competence when evaluating children’s abilities in the classroom rather than only assessing one portion of the construct (e.g., social skills). Additionally, educators should be looking for what they want to see in children (e.g., positive interaction skills, mastery motivation/drive toward goals, social problem-solving) rather than assuming children are socially competent because they don’t demonstrate negative aspects of behavior. This means being thoughtful when choosing assessment measures to evaluate social competence in children. Additionally, this more comprehensive and strengths-based understanding of social competence can drive program development to help support children in learning and demonstrating increased social competence.

Developing programs based on an entirely strengths-based structure of social competence can also foster positive family–school relationships. Specifically, hearing strengths and next steps for success allows parents to be more open to ongoing communication rather than having communications with the school focused on the “cant’s” and weaknesses. Communicating with parents focusing on strengths of the child and the whole family builds positive feelings in the families and allows for more willingness to communicate with school personnel (Blitz, Kida, Gresham, & Bronstein, 2013). Outlining several advantages of strengths-based assessment processes, Nickerson and Fishman (2013) note that strengths-based practices increase trust and supportiveness in parent–student–professional relationships. While working as a school psychologist, I saw this firsthand, as evidenced by the drastic increase in participation in our IEP meetings when we transitioned to a strengths-based model of information sharing.

This model has also presented some additional practical applications for educators. Specifically, the emphasis on early development of self-regulation skills should remain at the forefront, and we, as educators, should be thoughtful when considering school readiness. This project suggests that we should be thinking of school readiness as an environmental construct, and evaluating the fit of the child and the system when placing children. Children may demonstrate school-related skill sets (such as understanding of numbers and colors), but this author would suggest that is not enough. Children should be in a setting where they are able to thrive because the setting and their personal strengths are aligned. Future studies should continue to explore a more comprehensive and strengths-based model of social competence in the early years, and programming should be aligned with this model to support better social and academic success for children.

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