SOCIAL-EMOTIONAL DEVELOPMENT IN EARLY CHILDHOOD:

INTERACTIONS BETWEEN AGE, GENDER AND LANGUAGE DIFFERENCES IN A HEAD START PROGRAM

Yi Ren, M.A., M.A., ABD
Laura Jacobs, Ph.D.
Andres Garcia, Ed.D
Jeannette Truxillo, Dr.PH.
Cristina Mavarez, B.S.
Kimberly McLeod, Ed.D

Harris County Department of Education
Research & Evaluation Institute

October, 2015

CONTENTS

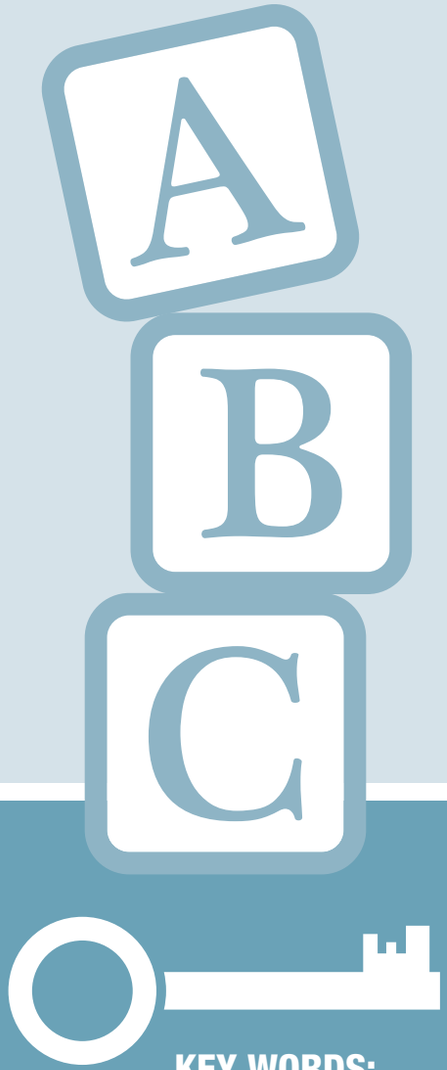
2

ABSTRACT

INTRODUCTION. Social-emotional development in early childhood supports the growth of children's social-emotional competence. This includes their experience, expression, management of emotions, and their ability to establish positive and rewarding relationships with others. Social-emotional skills developed during early childhood have been shown to make significant contributions to children's continued academic success. On the other hand, low social-emotional development in early childhood is associated with serious problem behaviors in adolescence and adulthood, which can undermine academic success. This study aims to examine the differences of age, gender, and language in early childhood social-emotional development.

METHOD. This study used a sample from a Head Start program in Harris County, Texas. The sample included 1,043 children, ages 3 and 4. Four-way repeated ANOVA was conducted to examine the age, gender, and language differences in children's social-emotional development across three time points.

FINDINGS. On average, 4-year-old children had higher social-emotional development scores than 3-year-old children. Female children had higher social-emotional development scores than male children. English-speaking children had a different trajectory in social-emotional development compared to Spanish-speaking children, especially within the 3-year-old group.



KEY WORDS:
social-emotional development, age, gender, language, low-income children, minority

INTRODUCTION

Significant gaps in academic achievement experienced by impoverished and minority students have been a longstanding dilemma faced by practitioners and researchers alike.

Significant gaps in academic achievement experienced by impoverished and minority students have been a longstanding dilemma faced by practitioners and researchers alike. Research indicates that children from low socioeconomic and minority communities are faced with risk factors that threaten their opportunity to develop literacy and math skills during critical developmental years in early childhood (Fantuzzo, Bulotsky-Shearer, McDermott, McWayne, Frye &Perlman, 2007). Over 30 years of research conducted on early childhood education illustrates that participation in early childhood education programming is positively associated with school readiness. Early childhood education promotes children's social-emotional development, as well as early reading and math competency development. Social-emotional skills in early childhood have been shown to make significant contributions to children's continued academic success (Zhai, Brooks-Gunn & Waldfogel, 2011). On the other hand, low social-emotional development in early childhood is significantly associated with serious problem behaviors in adolescence and adulthood, which can undermine academic success (Broidy et al, 2003; Reynolds, Temple, Robertson, & Mann, 2001).

Social-emotional development in early childhood supports the growth of children's social-emotional competence, which includes their experience, expression, and management of emotions and the ability to establish positive and rewarding relationships with others (Cohen, Onunaku, Clothier, & Poppe, 2005). The development of social-emotional functions is particularly crucial between ages 0-4, when psychobiological systems experience a type of wiring that will impact a child for life (Ramey & Ramey, 1999). Emotional knowledge (being able to read facial expressions and interpret behavior so that an appropriate social response is displayed) and emotional competence (being able to positively initiate and develop positive social interactions) both contribute to a student's level of social-emotional competence between the ages of

2 and 4 (Denham, Blair, DeMulder, Levitas, Auerbach-Major, & Queenan, 2003). Attention and self-regulatory skills have also been shown to be positively related to social-emotional competence and academic skills (Eisenberg et al., 1995; McClelland et al., 2007; Rothbart, Posner, & Kieras, 2006; Trentacosta & Izard, 2007; Trentacosta, Izard, Mostow, & Fine, 2006). In particular, Wilson and Gottman (1996) characterized attention as the "shuttle" that connects emotional and cognitive processes. The interrelation of these constructs—attention, emotion, and cognition—reinforces the importance of social-emotional development in preschool age children. Therefore, it is essential that caregivers provide preschool students training to be attentive and regulate their emotions through the use of socially appropriate coping skills.

Currently, one of the major concerns among kindergarten teachers is that students entering their classrooms have not developed the level of social-emotional competence needed for academic readiness and success. Current research has illustrated a rise in behavioral problems in prekindergarten environments, with an estimated 15-20% of students displaying significant behavioral problems. Gilliam and Shahar (2006) surveyed a random sample of preschool teachers, and found that the average preschool expulsion rate of students during a 12-month period was 33%. Rates for African-American students were twice that of Latinos and Caucasians. Of those expelled, 91% were males. Therefore, higher instances of reported behavioral problems and expulsions encountered by male, minority students compels the examination of cultural and gender temperament differences as they relate to early childhood social-emotional development. Furthering the development of research that illustrates these pertinent factors will provide guidance for policy, practice, and future research that can positively impact this high-need population.

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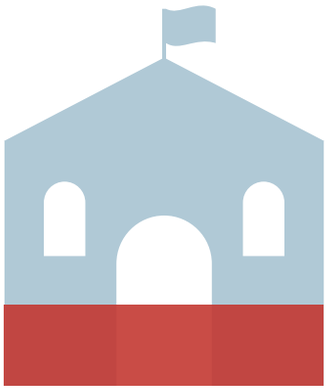
African American students had higher expulsion rates than Latinos and Caucasians in preschool students (Gilliam & Shahar, 2006).



Higher instances of reported behavioral problems and expulsions encountered by male, minority students compels the examination of cultural and gender temperament differences as they relate to early childhood social-emotional development.

AGE AND GENDER DIFFERENCES IN EARLY CHILDHOOD SOCIAL-EMOTIONAL DEVELOPMENT

The extant literature has identified distinct stages of social-emotional development based upon brain maturation and environmental influences. Brain development plays a primary role in social-emotional growth, particularly the maturation process that occurs in the frontal lobe. This area of the brain manages several key aspects of emotion, including the ability to exert effortful control in the areas of attention and inhibitory response (Thompson, 2006). Rapid growth occurs in the frontal lobe at two time points, during infancy and between the ages of 4 and 7 (Hudspeth & Pribram, 1990). Between 12 and 18 months, children become aware of their social environment and are able to respond to basic requests for social interaction, such as waving hello or goodbye. By age 2, children develop the ability to regulate their own behavior and are able to show elements of self-control outside of the presence of their caregiver. Between 3 and 11 years old, children experience consistent growth in their ability to inhibit first responses, regulate their emotions, and problem solve, with the most rapid changes occurring between the ages of 3 and 5 (Gerstadt, Hong, & Diamond, 1994; Simpson & Riggs, 2005).

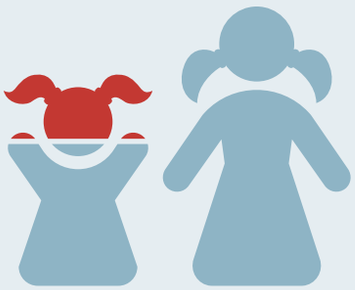
The interaction between brain maturation and a child's environment is a key factor in social-emotional development. Social modeling occurs within a child's immediate context, where the external control exerted by primary caregivers demonstrates how the child should regulate their own behavior (Schunk & Zimmerman, 1997). At age 3, children begin to understand, practice, and internalize appropriate social-emotional behaviors, which are guided by contextually learned aspects of cooperation, reciprocity, and responsibility (Schunk & Zimmerman, 1997; Hay, 1994). Adults impact the rate and quality of development by the manner in which they guide and respond to a child's behavior and emotions. Having internalized modeled behavior, 4-year-old develop advanced understanding of acceptable levels of social-emotional variance depending upon people, time, and place.

These interactions between brain development and the environment allow a 4-year-old student to discern how to react to social situations in a manner that accounts for merit, friendship, and diffusion of responsibility (Hay, 1994; Baron-Cohen, 1994; Garber & Dodge, 1991; Frye and Moore, 1991).

Social-emotional development has been shown to vary depending upon gender. Interactions between psychobiological differences in temperament and gendered socialization practices result in females displaying a higher degree of "school-ready" behavior and demonstrating greater instances of pro-social and peer relationship skills (Denham, et al., 1990). Denham, Bassett, Sirotkin, Brown and Morris (2015) also found significant differences between genders when comparing temperament among a group of 3-to-5 year olds. Findings from this study indicated that girls outperformed boys on HEC tasks. A difference in temperament between genders has been studied extensively, highlighting differences in activity, emotionality, emotional intensity, and instances of approach or withdrawal (Else-Quest et al., 2006). Beginning at age 1, boys tend to display higher levels of activity, and at 18 months they show increased rates of emotional upset and frustrated reactions (Maccoby & Jacklin, 1974). However, girls have been shown to better perceive low-level stimuli in their surroundings and display a more nuanced awareness of changes in their environment.

As is described, developmental influences attributed to age and gender impact the nature of social-emotional development for preschool children. The manner in which a child regulates behavior and expresses emotions influences their ability to focus on learning, engage in age appropriate play, initiate and maintain conversations, and develop friendships (Denham, Bassett, Thayer, Mincic, Sirotkin, & Zinsser, 2012).

Social-emotional development in early childhood has distinct stages based upon brain maturation and environmental influences. Four-year-old children are more able to discern how to react to social situations in a manner that accounts for merit, friendship, and diffusion of responsibility in comparison to 3-year-old children. Female children display a higher degree of "school ready" behavior and demonstrate greater instances of pro-social and peer relationship skills.



Oral language development plays an important role in the social emotional development of children as it guides their connections with other children and adults. Based on previous research for students with developmental delays, one may assume that bilingual students would be more likely to have fewer social-emotional skills in early childhood. However, the previous research found that bilingual (Spanish and English) students showed strong, or stronger, social-emotional development in comparison to monolingual (English only) peers. Multiple factors may contribute to this difference, including family, teacher, and peer relationships.

LANGUAGE DIFFERENCES IN EARLY CHILDHOOD SOCIAL-EMOTIONAL DEVELOPMENT

Oral language development plays an important role in the social-emotional development of children as it guides their connections with other children and adults (Mashburn, Justice, Downer, & Pianta, 2009). Language serves as a means for children to develop social interactions and cognitive development (Eisenberg, 1999; Vygotsky, 1978). Studies have identified the association between language deficiencies and negative behavior among children with speech and language difficulties (Fujiki, Brinton & Clarke, 2002). For instance, students with delayed language development exhibit negative behaviors due to their difficulty expressing themselves as they try to develop or maintain relationships. From this exclusion of peer group interactions, children have less opportunity to participate in peer group conversations, thereby further limiting their social-emotional development. Studies have found that language and social difficulties can occur from preschool through high school (Lindsay, Dockrell & Strand, 2007; Beitchman, et al, 2001).

In contrast with monolingual English-speaking students, bilingual students typically face the challenge of learning a second language when participating in early childhood programs employing English immersion or bilingual programming. Based on previous research for students with developmental delays, one may assume that bilingual students would be more likely to have fewer social-emotional skills in early childhood. However, Guerrero and his colleagues (2013) found that Mexican-American students did not present delays in social-emotional development in early childhood, even though they did show delays in cognitive development. In addition, Fuller (2014) found that bilingual (Spanish and English) students show just as strong, or stronger, social-emotional development in comparison to monolingual (English) peers. Although he could not determine the processes that contributed to stronger social-emotional development, he found Hispanic

mothers revealed less severe or fewer depressive symptoms, less harsh parenting skills, and high levels of responsiveness and affection toward their children. The exception is with cases of extreme poverty. According to Halle et al. (2014) multiple factors may in fact impact the social-emotional development of children, especially bilingual students. Their social-emotional development is influenced by societal, community, family, and classroom dynamics which include peer relationships. Despite the limited evidence clarifying the impact of different factors and social-emotional development, it is believed that these contextual factors are essential in the understanding of social-emotional development for bilingual children.

PURPOSE OF THIS STUDY

Findings in the literature lead to an interest in studying the age, gender and language differences in social emotional development in early childhood, especially among low-income and minority children. To examine these differences this study uses a sample from a Head Start program in a highly populated metropolitan area of Texas. Head Start is a federal program that promotes the school readiness of children age 3-5 from low-income families by enhancing their cognitive, social and emotional development. The nature of Head Start programing requires that participants meet low-income qualifications, thereby providing a key descriptive factor for this study. Moreover, around 35.6 of students enrolled in Head Start programs are minorities and around 38% are Hispanic or Latino origin across the nation (Office of Head Start, 2014). The specific research question explored in this study was: What are the age, gender, and language differences in social emotional development skills among Head Start children in this program? The findings of this study could provide guidance for policy, early childhood education practice, and future research that can positively impact the early learning of low-income children.

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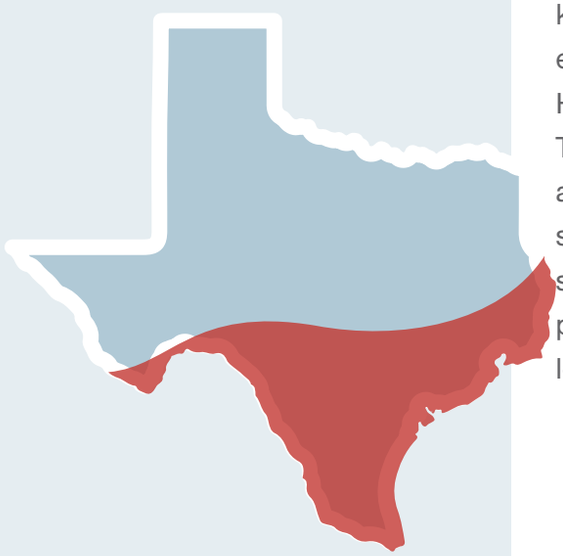


METHOD

The Head Start program engaged for this study has 15 centers located throughout northeast Harris County.

SAMPLE

The sample of this study was comprised of students enrolled in a Head Start program in Harris County, Texas. The Head Start program engaged for this study has 15 centers located throughout northeast Harris County. Over 1,230 students are enrolled each school year (HCDE, 2015).

All Head Start centers in this study teach students based on the Frog Street Press Pre-K curriculum, a program approved by the Texas Education Agency and the National Office of Head Start in the Department of Health and Human Services. Frog Street Pre-K (FSPK) is a comprehensive, research-based program that integrates instruction across developmental domains and early learning disciplines. The Head Start centers implement a curriculum that includes the following five domains:

1. Approaches to learning
2. Cognition and general knowledge
3. Language and literacy
4. Physical development and health
5. Social-emotional development.

The Frog Street Pre-K program provides curriculum-corresponding assessments to measure students' performance in each domain. The Head Start centers use these measures to assess students at three distinct time points each academic year: beginning of the school year (BOY), middle of the school year (MOY), and end of the school year (EOY).

In the 2014-2015 school year, the Head Start program in this study enrolled a total of 1,266 students. The study sample was comprised of 1,043 students who received social-emotional development assessments for all three time periods during the school year. Seen in table 1 among the 1,043 students, 421 (40.36%) students were 3-year-old at the time of enrollment, while 622 (59.64%) were 4-year-old.

Table 1. *Description of Sample (N=1,043)*

Variables	N (%)	Mean (SD)
Social-Emotional Development Score (BOY)	–	73.86 (25.00)
Social-Emotional Development Score (MOY)	–	82.58 (22.40)
Social-Emotional Development Score (EOY)	–	85.77 (22.40)
Age		
3 years	421 (40.36)	
4 years	622 (59.64)	
Gender		
Female	531 (50.91)	
Male	512 (49.09)	
Language		
English	637 (61.07)	
Spanish	406 (38.93)	

Note:
BOY = beginning of the school year
MOY = middle of the school year
EOY = end of the school year
Social-Emotional Development score was a numerical score to measure a student s social emotional development, ranging from 0-100.

Five hundred and thirty one (50.91%) were females and 512 (49.09%) were males. Six hundred and thirty seven (61.07%) were identified as English preferred, while 406 (38.93%) were identified as Spanish preferred.

MEASUREMENT

The dependent variable of social-emotional development was determined based on the score achieved on the Frog Street Press Social-emotional Development Assessment for pre-k students. The participating Head Start programs selected 12 indicators from the Frog Street Press Social-emotional Development Assessment to measure social relationships (healthy relationships and interactions with adults and peers); self-concept & self-efficacy (the perception that one is capable of successfully making decisions, accomplishing tasks, and meeting goals); self-regulation (the ability to recognize and regulate emotions, attention, impulses, and behavior); and emotional and behavioral health (a healthy range of emotional expression and learning positive alternatives to aggressive or isolating behaviors). The 12 selected indicators were:

The participating Head Start programs selected 12 indicators from the Frog Street Press Social-Emotional Development assessment to measure social relationships, self-concept & self-efficacy, self-regulation, and emotional & behavioral health

1. Child is aware of body in space
2. Child follows classroom rules
3. Child takes care of classroom materials
4. Child is aware of own feelings
5. Child sustains attention to a task
6. Child focuses during group time for 20 minutes or more at one time
7. Child initiates social interactions
8. Child initiates problem-solving strategies
9. Child begins to have meaningful friendships
10. Child understands others have different opinions
11. Child regulates behavior in a variety of contexts and settings
12. Child shares easily and can resolve conflicts independently

Teachers marked “yes” or “no” for each indicator for each student, based on daily observations. The social-emotional development score for each student at each time point was calculated based upon the percentage of “yes” indicators, as prescribed by the Frog Street Press assessment guide. A social-emotional development score of 50 at the beginning of the school year denotes that the teacher marked six indicators as “YES” out of the twelve available indicators. In general, each teacher assessed the students in his or her own class. In the cases where the responsible teacher was not available, an alternate teacher who knew the student completed the assessment.

Utilizing a repeated measures design, students were assessed three times during the 2014-2015 school year.

Utilizing a repeated measures design, students were assessed three times during the 2014-2015 school year. The BOY assessment was conducted in 2014 between October 5 and 16; the MOY assessment was conducted in 2015 between January 18 and February 2; and the EOY assessment was conducted in 2015 between April 25 and May 6.

The independent variables identified for this study included students' age, gender, and language preference. Age was measured by the students' actual age in years upon Head Start enrollment at the beginning of 2014-2015 school year. Gender was measured by 1=female and 2=male. Language preference in the home was measured by 1=English preference and 2=Spanish preference. Students' language preferences were determined based on parents' information when they enrolled in the Head Start program. The Head Start program provides a monolingual English curriculum, and language preferences were not formally assessed for proficiency in English or Spanish.

Data Analysis

This study employed a four-way repeated measures ANOVA, where the dependent variables were repeatedly measured, with three time-invariant categorical independent variables (a four-way interaction exists). Before the four-way repeated ANOVA was conducted, two major assumptions —Normality and Sphericity—of repeated ANOVA were tested.

When engaging repeated ANOVA tests, the dependent variable is assumed to be normally distributed. Skewness and kurtosis were computed, as was an additional normality test. Results from this sample were significantly negatively skewed, therefore violating the normality assumption. However, there is widespread consensus that violations do not seriously affect the result. An ANOVA is considered a robust test against the normality assumption with only a small effect on the type I error rate, especially when the sample size of each group is large enough (Brownie & Boos, 1994; Refinetti, 1996; Schmider, Ziegler, Danay, Beyer, & Bühner, 2010). In this study, the sample size for each group is big enough (over 400 subjects) to run

an ANOVA model and obtain robust results. The results of Mauchly's Teast of Sphericity indicated that the sample of this study violated the sphercity assumption. To correct for this violation, the interpretation of the results were based on the Greenhouse-Geisser correction factor.

Having accounted for the assumptions, a four-way repeated ANOVA was conducted to examine the age, gender, and language preference differences in students' social-emotional development scores over three time points. All main effects, as well as the interaction effects of time, age, gender, and language preference were tested.

Having accounted for the assumptions, a four-way repeated ANOVA was conducted to examine the age, gender, and language preference differences in students' social-emotional development scores over three time points.

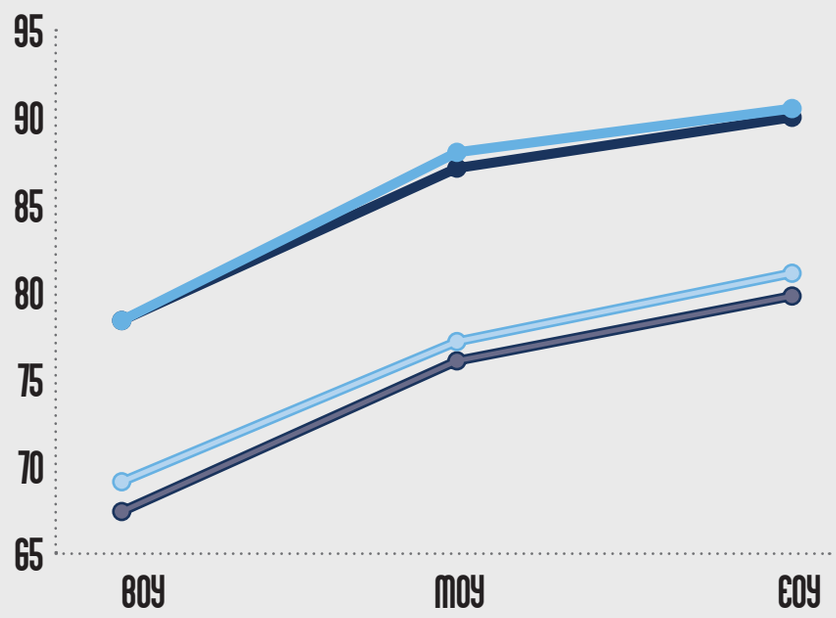
RESULTS

The four-way repeated ANOVA included tests of between-subjects effects and tests of within-subjects effects. Table 2 provides the results of the four-way repeated ANOVA.

TESTS OF BETWEEN-SUBJECTS EFFECTS

The results of tests of between-subjects effects demonstrated that age and gender were significant factors influencing students' social-emotional development skills. On average, female students had higher social-emotional development skills than male students ($F=73.758$, $p<0.001$). Moreover, on average, 4-year-old students had higher social-emotional development than 3-year-old students ($F=79.428$, $p<0.001$).

Graph 1. *Average Score of Social-Emotional Development by Age and Gender*



Note:
BOY = beginning of the school year
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After controlling for children's age and gender, language was not a statistically significant factor on children's social-emotional development skills. In addition, after controlling for the main effects of age, gender, and language, all interaction effects of the three variables were not statistically significant. The difference between female students and male students was not dependent upon children's age or language, nor were the differences between 4-year-old children and 3-year-old children dependent upon children's gender or language.

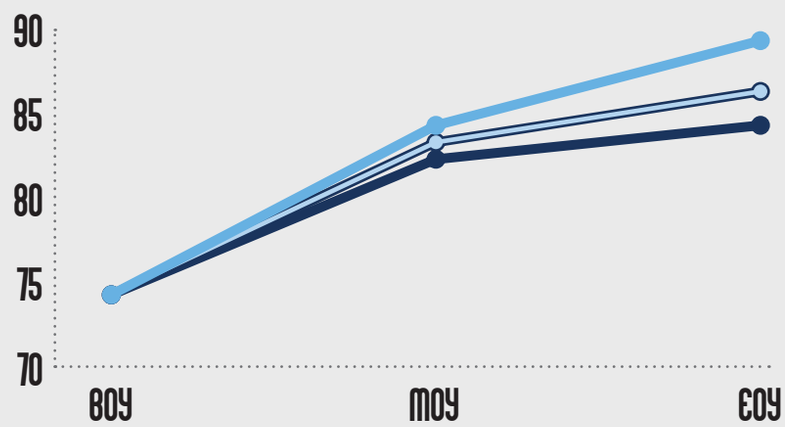
Table 2. *Results of Four-way Repeated ANOVA (based on Greenhouse-Geisser correction factor)*

Source	SS	df	MS	F	P
Between-subjects					
Gender	76594.269	1	76594.269	73.758	0.000
Age	82482.325	1	82482.325	79.428	0.000
Language	1561.560	1	1561.560	1.504	0.220
Gender *Age *Language	821.686	1	821.686	0.791	0.374
Gender *Language	915.372	1	915.372	0.881	0.348
Age *Language	3.733	1	3.733	0.004	0.952
Gender *Age *Language	105.550	1	105.550	0.102	0.750
Within-subjects					
Time	79346.479	1.911	41516.133	183.026	0.000
Time *Gender	337.228	1.911	176.446	0.778	0.454
Time *Age	481.188	1.911	251.770	1.110	0.328
Time *Language	3392.470	1.911	1775.028	7.825	0.001
Time *Gender *Age	35.781	1.911	18.721	0.083	0.913
Time *Gender *Language	321.909	1.911	168.431	0.743	0.470
Time *Age *Language	1531.352	1.911	801.243	3.532	0.031
Time *Gender *Age *Language	319.551	1.911	167.198	0.737	0.473

TESTS OF WITHIN-SUBJECTS EFFECTS

The results of tests for within-subjects effects, presented in table 2, indicated that Head Start students' social-emotional development scores significantly increased over time after controlling for all main and interaction effects of students' age, gender, and language speaking. Their scores significantly increased from beginning of the year (Mean=0.74, SD=0.25) to the middle of the year (Mean=0.83, SD=0.22), and then to the end of the year (Mean=0.86, SD=0.22), $p<0.001$. Even though English-speaking students and Spanish-speaking students were seen to increase, they increased differently. English-speaking students and Spanish-speaking students did not present significant differences at the beginning of the school year (0.74 vs. 0.74) or at the middle of the school year (0.82 vs. 0.84). However, at the end of the school year, the average score of English-speaking students (Mean=0.84, SD=0.24) was significantly lower than that of Spanish-speaking students (Mean=0.89, SD=0.20), $p=0.001$.

Graph 2. *Average Score of Social-Emotional Development by Language and Age Groups*



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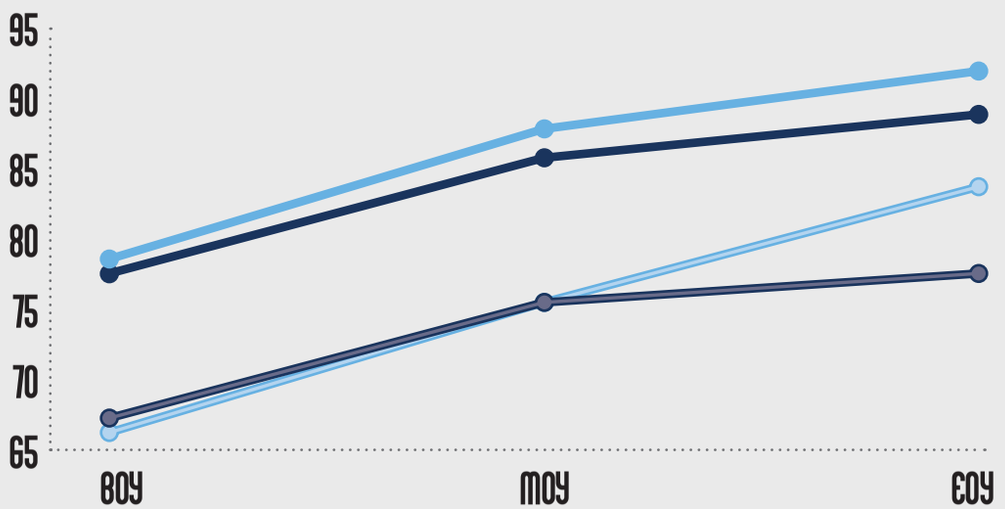
EOY = end of the school year

As displayed in graph 3, results of data analysis showed significant interaction effects for age and language in the tests of within-subjects effects. Four-year-old students had significantly different rates of increase in comparison to 3-year-old students within both the

English and Spanish-speaking groups. Among 4-year-old students, the average social and emotional developmental skills score for English-speaking students increased from 0.78 at the beginning of the year to 0.86 at the middle of the school year and to 0.89 at the end of the school year. In comparison, for Spanish-speaking students, the average scores for 4-year-olds increased from 0.79 at the beginning of the year to 0.88 at the middle of the school year and to 0.92 at the end of the school year. These trends indicated that Spanish-speaking 4-year-old students had a slightly higher increase compared to English-speaking 4-year-old students.

Among 3-year-old students, the average scores of English-speaking students increased from 0.68 at the beginning of the school year to 0.76 at the middle of the school year and to 0.78 at the end of the school year. In comparison, Spanish-speaking students' scores increased from 0.67 at the beginning of the school year to 0.76 at the middle of the school year and to 0.84 at the end of the school year. These trends showed that even though 3-year-old students of both languages started out with similar scores at the beginning of year and middle of the year, Spanish-speaking 3-year-old students continued to increase to the end of year, while English-speaking students stalled.

Graph 3. *Average Score of Social-Emotional Development by Language and Age Groups*



Note:
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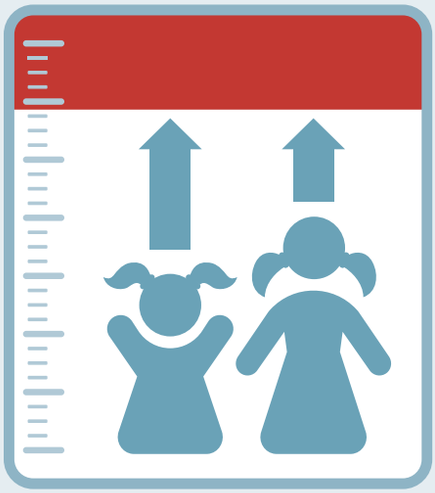
DISCUSSION

Results of this study revealed that on average, 4-year-old students had significantly higher social-emotional development scores than 3-year-old students across time, even though no significant differences between their trajectories were found. This finding reflects the literature in that early childhood social-emotional skills are influenced by children's growth in social understanding. Children with greater social understanding are better able to regulate their behaviors and emotions (Taumoepeau & Ruffman, 2008). Zero to four-year-old stage of growth is vital to the development of social understanding. During this age, children begin to foster an understanding of responses, communication, emotional expression, and actions of other people. In general, 4-year-old children have greater social understanding and are better able to regulate themselves.

Although 3- and 4-year-old children were different in social-emotional development, their growth trajectories were similar.



The social-emotional differences found between boys and girls in this study are also aptly supported by prior research and provide an avenue within which to direct interventions in early childhood education. The maturational lag experienced by boys in social-emotional development can prove to serve as a barrier to school readiness. The temperamental tendency toward more aggressive and physical expression among males beginning at infancy can have a negative impact in the classroom setting, particularly if outlets for high intensity physical activity are limited (Else-Quest et al., 2006).

The finding that Spanish-speaking students had significantly higher social-emotional development scores than English-speaking students at both ages is consistent with findings presented by Guerrrero and his colleagues (2012) which indicate higher levels of social-emotional development for Spanish-speaking students in comparison to their English-speaking peers. The difference in Spanish-speaking students expressing greater emotional development than the English-speaking students may relate to parental practices and family structure (the number of children in the family, father's presence, and employment status), as Fuller (2014) addressed. It may also relate to teachers' experience and professional development, as well as program practices. For example, providing training focusing on cultural awareness or sensitivity can address the differences in learning. Additionally, with

respect to program practices, the literature shows that English immersion preschool programs provide fewer short-term or long-term academic gains for Spanish-speaking students (August & Shanahan, 2008).

Additionally, when social-emotional development results were disaggregated by language and age, variance in the rate of increase was noted specifically for 3-year-olds within the English-speaking and Spanish-speaking groups. Three year old English speakers increased similarly to 3-year-old Spanish speakers from the beginning of the year to the middle of the year. However, English-speaking students did not maintain the same rate of increase between the middle of the year and the end of the year, while the Spanish-speaking group continued to increase at a higher rate. This result is consistent with the research conducted by Fuller (2014) where Spanish-speaking children were found to have stronger social-emotional development when compared to English-speaking children.

LIMITATIONS

This study contains limitations in its sample, measurement, and data analysis. The sample of this study was limited to one grantee's Head Start program. Because these children all came from one program, they may not be representative of the population of all Head Start students across the region, or the population of all low-income children. Second, the assessment was based on Head Start teachers' daily observations, with each child assessed by one teacher. Teachers' subjective concepts and feelings might potentially influence the assessment results. In addition, the content validity and reliability of the Frog Street Press Pre-K Assessment for the entire set of items and domains were established by Texas A&M University in 2013. However, the reliability of the 12 items selected by Head Start Programs in this sample have not been established. Third, this study only included the independent variables of the students' age, gender, and language preference. Other factors which might affect students' social-emotional developmental skills were not considered in this study, including student race/ethnicity, parent demographics, teacher demographics, language proficiency, and parental involvement with Head Start programming.

20

CONCLUSION

RECOMMENDATIONS FOR PRACTICE

Six major recommendations for practice and future research are suggested here based on the findings of this study and literature. First, using appropriate strategies to consistently interact with children is essential in early childhood social-emotional development. Research conducted by Taumeopeau and Ruffman (2008) found that the type and frequencies of mother-talk influenced children's social understanding, and further influenced children's social-emotional skills. When children were under age 3, consistent mother-talk about feelings and mental states related to children's desires can increase children's understanding of new linguistic terms that related to their internal experience and immediate needs. As children grew, mother-talk which processed in complexity about thinking and knowledge increased children's social understanding and further improved their abilities to regulate their emotions and behaviors. Based on the literature, consistent talk in both the home and school environments about feelings, thinking, and knowledge can be a good strategy for parents and educators to develop children's social-emotional skills.

Second, increasing teachers' awareness of gender differences among preschool children could serve to increase understanding of young children's behavior, particularly males. Because boys are more prone to engage in high intensity play, it is understandable that their natural proclivities are not always amenable to traditional classroom activities. Understanding that aggressive behavior and externalizing emotions are not indicative of an overall negative character can prevent a teacher from assigning personal attributions to a student that is displaying typical temperamental behavior for their associated gender (Else-Quest et al., 2006). In addition, teachers that elect to integrate physical activity more regularly throughout the day may find that, when provided with a structured outlet for physical intensity, boys display a higher degree of pro-social behavior (Gropper, Hinitz, Sprung & Froschl, 2011). In light of the higher rates of behavioral problems and expulsion from preschool among males (Gilliam & Shahar, 2006) and the relationship found between boys' aggressive behavior and lack of success (Howse et al., 2003), it is clear that knowledge of gender differences in early

childhood can inform classroom practices to better support the development of pro-social skills among this at-risk population. Integration of this knowledge into classroom management practices is particularly crucial for African American and Latino boys, who experience significantly higher rates of expulsion and suspension in the preschool setting.

Third, during the preschool years, boys and girls tend to gravitate to gender-specific play when they are given the choice (Goble, Martin, Hanish, & Fabes, 2012). However, research has found that when children are placed within different social contexts the type of play they engage in changes. Goble et al. (2012) found that girls were more apt to engage in masculine activities when playing with male peers, and boys engaged more significantly with feminine activities during exchanges with teachers. Creating structured social contexts where both girls and boys are exposed to opposite gendered play could be a mechanism that increases instances of pro-social behavior for both genders.

Fourth, trainings for teachers should include multi-cultural responsiveness. Grave and Howes (2011) initially found teachers of other ethnicities had identified higher instances of negative behavioral issues and lesser degrees of social competence in minority boys. However, when teachers and students were matched based upon ethnicity, no significant differences in social-emotional development were identified, and fewer negative behavior issues were reported. Therefore, knowledge of methods that promote teacher cultural competence and responsiveness could lead to greater social-emotional development among early childhood students.

Fifth, concerning the interrelation of attention, social-emotional development and cognition, this study suggests providing additional training for parents to develop their children's attention and cognitive skills. Fuller (2014) suggests reading and increased experience with stories and printed material offers greater support for children as they engage in problem-solving and interaction.

Sixth, additional assessment training for teachers is suggested.

- Interact consistently in a positive manner with children
- Increase teachers' awareness of gender differences
- Promote opposite gendered play activities to improve children's prosocial behavior
- Provide multi-cultural training for teachers
- Train parents to develop children's attention and cognitive skills
- Offer additional assessment training for teachers

6 } Recommendations for Practice

The training should be formative and iterative with an emphasis on consistent program and assessment implementation through consultation or individual coaching (Carter & Von Norman, 2010).

FUTURE STUDIES

Based on the limitations of this study and the suggested recommendations, future research at the local level should include first, interviews with the teachers and staff at the Head Start centers. A focus group could elicit greater information regarding the teaching practices of the Head Start program. Inclusion of this method will add important qualitative data that can further inform the interpretation of the quantitative analysis. Second, the inclusion of parent and teacher demographic data will strengthen the research design with the integration of additional variables that have been shown to impact social-emotional development analysis.

Third, the depth of social-emotional understanding in the early childhood environment will benefit from the use of multiple assessment instruments. The current literature lacks evidence to prove the validity and reliability of the shortened Frog Street assessment to subjectively measure children's social-emotional development. In addition, the observed ceiling effects of the shortened Frog Street assessment likely influence the measurement. The analysis results could be more accurate if an additional instrument of social-emotional development is employed. Finally, future studies that examine the relationship between Head Start students' academic performance and their social-emotional development skills can inform best practices for the classroom and strategic changes that can enhance policy. The ultimate goal of the Head Start program is to support low-income children's social-emotional development and academic performance for their future success. The literature supports the relationship between early childhood social-emotional development and future academic performance. In future studies, this relationship could be explored with Head Start developmental outcome data. These research efforts would contribute to understanding, recognizing, and promoting the best practice of early learning classrooms.

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Responding Author:

Yi Ren, Research and Evaluation Institute

Harris County Department of Education

6300 Irvington Blvd. Houston, TX, 77022

Email: yren@hcde-texas.org, Phone: 713-696-1888

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